



DC Water Approved FY 2021 Budget

Adopted March 5, 2020 (Fiscal year starts on October 1)

Tommy Wells, Board Chairman David Gadis, Chief Executive Officer Matthew T. Brown, Chief Financial Officer

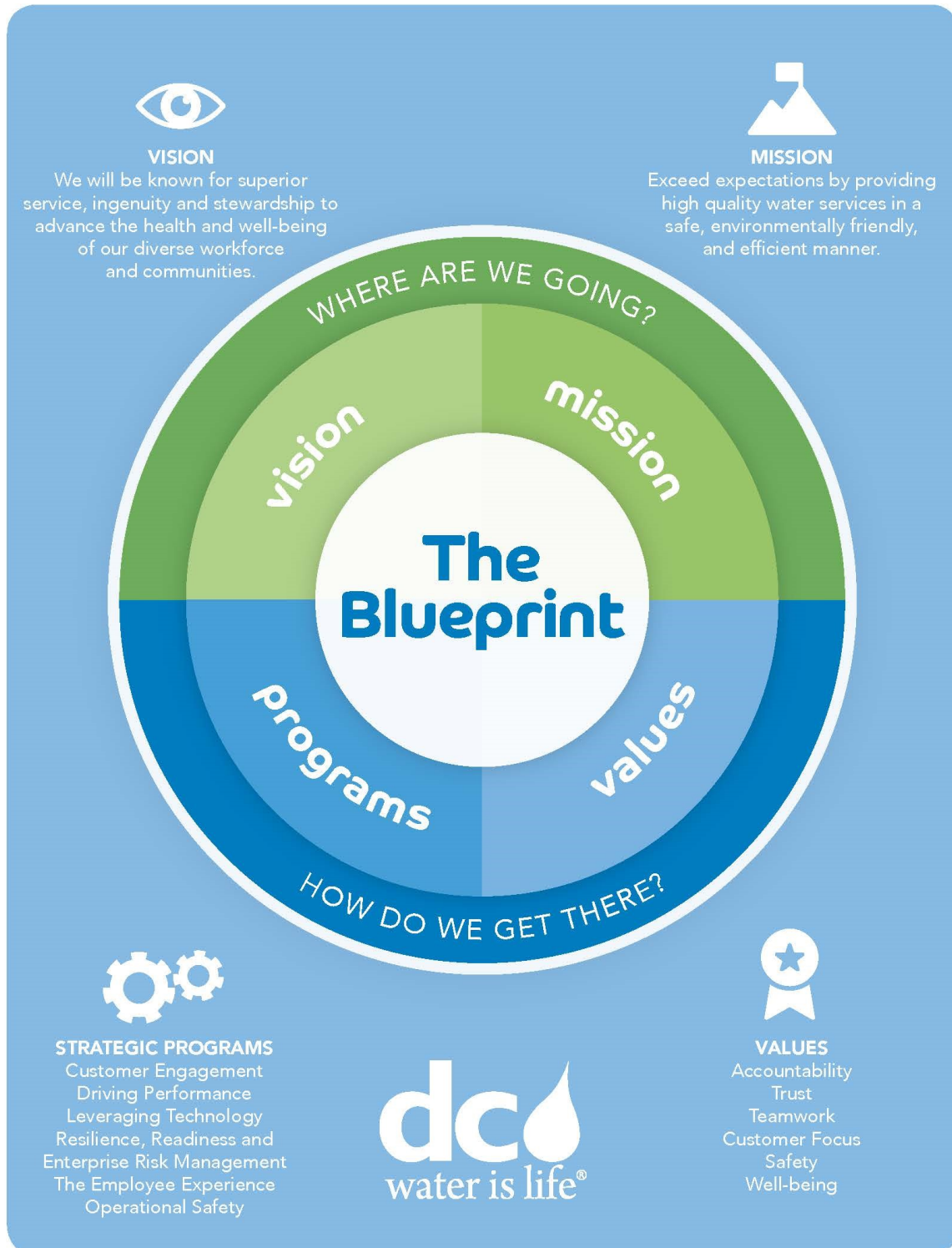


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Strategic Plan - The Blueprint

The Blueprint guides DC Water in setting priorities, focusing energy and resources, and strengthening operations. The strategic plan adopted by the Board on October 4, 2018 ensures employees and stakeholders are working towards common goals and aiming to accomplish the vision of DC Water.



VALUES

At DC Water, our values guide our actions, behaviors and decision making.

Accountability: We conduct ourselves in a manner that surpasses ordinary standards and take responsibility for our actions and their collective outcomes to our workplace, community and environment at all times.

Trust: We strive to achieve the highest standards of professionalism and ethical behavior by always seeking to be open, honest, fair and respectful.

Teamwork: We approach all we do in a collaborative way, delivering superior service and outcomes through enthusiasm, helpfulness, positivity, skills, knowledge and a collective commitment to excellence.

Customer Focus: We see every engagement with our customers as an opportunity to deliver an exceptional customer experience that improves customer satisfaction and the overall perception of DC Water among the communities we serve.

Safety: We are uncompromising in our commitment to the health and safety of our employees, customers, and community. We require individual accountability, expecting all employees to strictly adhere to our safety standards, and actively participate in and support the advancement of our safety practices.

Well-being: We recognize DC Water's number one resource is our people. We are committed to seeing that our team thrives physically, mentally and emotionally by endeavoring to create a culture that increases awareness, inspires individual responsibility, promotes healthy choices and encourages work/life balance.

STRATEGIC PROGRAMS

There are six strategic programs with executive sponsors for each who are responsible for finding resources and selecting the approach to achieving the identified initiatives under each program.

Customer Engagement: To deliver an exceptional customer experience and communications plan that enhances the value of our services by listening to and engaging with our customers.

Driving Performance: To operate a high-performing utility that delivers exceptional service to our customers.

Leveraging Technology: To develop an integrated set of solutions that leverages people, process and technology to improve reliability, increase efficiency, reduce cost, drive innovation and improve the customer experience.

Resilience, Readiness and Enterprise Risk Management: To protect and maintain the resources, systems and operations necessary to deliver safe and reliable services to our customers.

Employee Experience: To support and engage a workforce that is aligned with our vision to provide superior service to our customers.

Operational Safety: To ensure a safe workplace that supports the continuity of operations and services to our customers.

BOARD OF DIRECTORS

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Marc K. Battle Esq., Executive Vice President, Legal Affairs
Matthew T. Brown, Executive Vice President and Chief Financial Officer, Finance & Procurement
Kishia L. Powell, Chief Operating Officer & Executive Vice President
Armon Curd, Executive Vice President, Customer Experience
Biju George, Executive Vice President, Operations & Engineering
Wayne Griffith, Executive Vice President, Performance
Maureen Holman, Executive Vice President, Administration
Lisa Stone SPHR, SHRM-SCP, Executive Vice President, People and Talent

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Brent Christ, Director, Facilities Management
Tim Fitzgerald, Director, Fleet Management
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Joel Grosser, Director, Goods & Services
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Nicholas Passarelli, Director, Process Engineering
Elkin Hernandez, Director, Maintenance Services
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Jason Hughes, Vice President, Water Operations
Maureen Schmelling, Director, Water Quality
Kendrick St. Louis, Vice President, Sewer and Pumping Operations

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Gregory Hope, Deputy General Counsel
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George Spears, Director, Labor Relations

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, Engineering & Technical Services and the Office of Marketing & Communications for their hard work and dedication geared towards the publication of this document.

Lola Oyeyemi	Kunle Fagbohunka
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Ted Coyle	

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GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

District of Columbia Water & Sewer Authority

District of Columbia

For the Fiscal Year Beginning

October 1, 2019

Christopher P. Morill

Executive Director

dc

Executive Budget Summary

Approved FY 2021 • Adopted March 5, 2020

(Fiscal year starting October 1)

Tommy Wells, Chairman of the Board

David Gadis, Chief Executive Officer

Matthew T. Brown, Chief Financial Officer and
Executive Vice-President, Finance and Procurement

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY



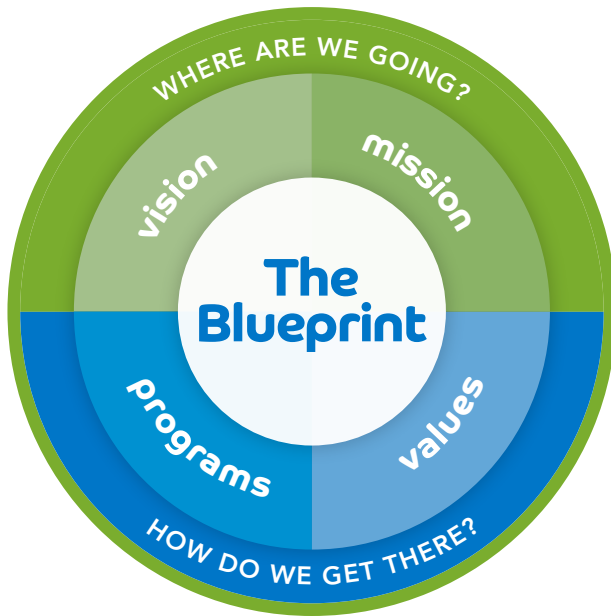
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The executive budget summary is a standalone document and is intended for our diverse stakeholders. Additional information on the operating and capital budgets can be found in the detailed budget book, and is also available online at dcwater.com

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

DC Water’s Board of Directors and the Executive Management team continue to work and improve the Authority’s operations and processes to be a world class utility. In this effort, a new strategic plan “The Blueprint” was adopted by the Board of Directors in October 2018.



Vision

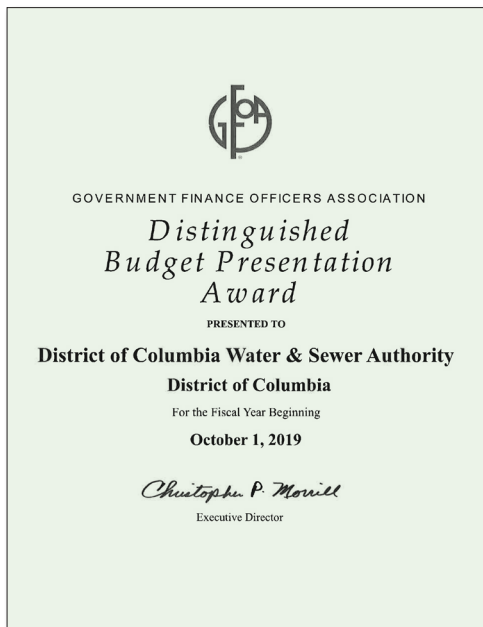
We will be known for superior service, ingenuity and stewardship to advance the health and well-being of our diverse workforce and communities.

Mission

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

Our Focus

- Staff driven
- Customer Affordability
- Strategic programs
- Invest in Aging Infrastructures while identifying cost savings
- Staying fiscally sound by sustaining debt coverage ratios, reserve requirements and other financial metrics



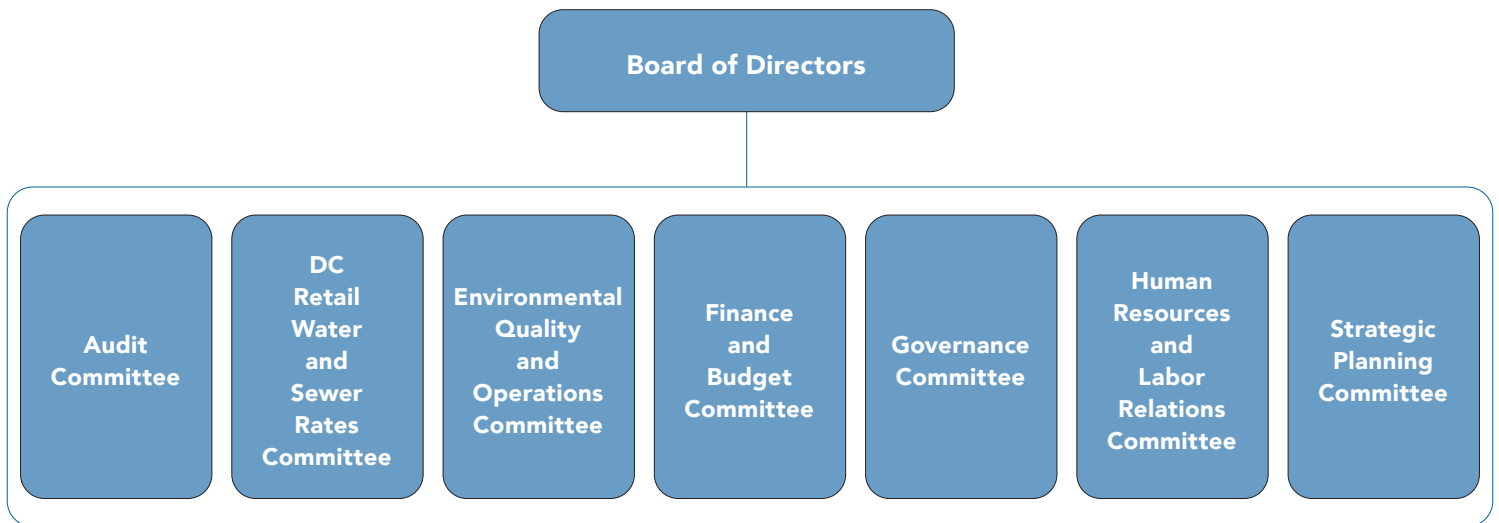
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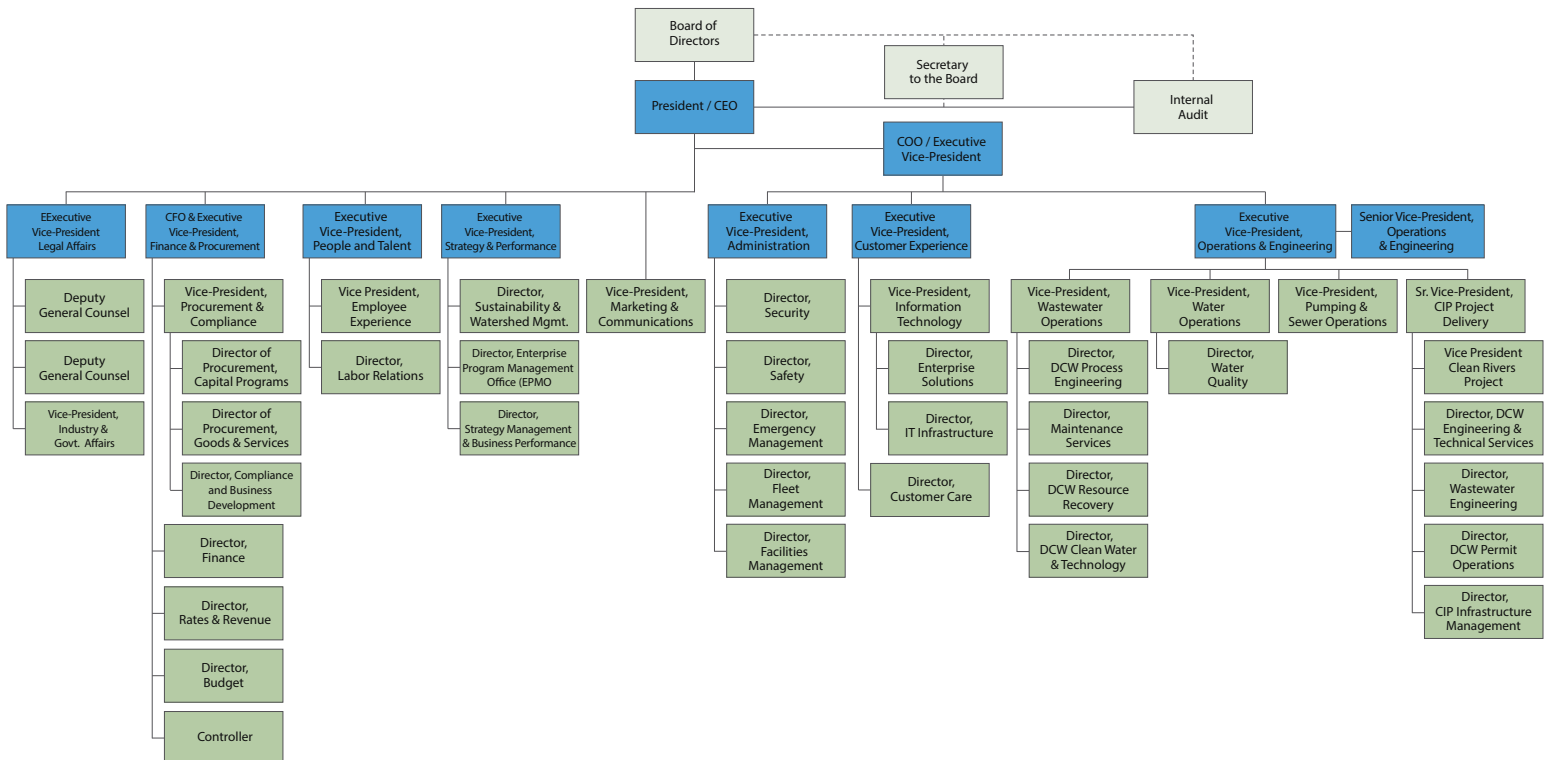
Organizational Governance and Structure

DC Water is an independent authority of the District of Columbia, established under District of Columbia and Federal law and is governed by 11 principals and 11 alternate members of the Board of Directors. The members of the Board of Directors also serve on various Committees.

DC Water Board Committees



DC Water Organizational Structure





I am pleased to present DC Water's budgets that were approved by the Board. The budgets reflect our continued work to balance our infrastructure renewal needs and affordability for our customers. Our efforts to operate efficiently and improve our performance, allowed us to deliver rate increases that are less than previously estimated.

This marks my second year at the best utility in the world. I am extremely proud of the dedication and commitment of our employees who continue to provide superior service to our customers and stakeholders, work and respond to challenges, and deliver the best water and sewer services for the District and the region.

This year, the world faced the unprecedented coronavirus (COVID-19) pandemic. Nothing tests an organization like a public health emergency. An organization needs dedicated employees, solid financial planning and effective emergency response to fight the impacts of a global pandemic. The safety and wellbeing of our workforce and customers is paramount. DC Water continues to lead the way in providing ongoing essential services and financial support to our customers. We implemented policies, such as suspending disconnections for non-payment, reconnecting disconnected customers, providing payment plans and working with District government to expand financial assistance for customers. Information about our proactive steps during this crisis is available online at dcwater.com/covid-19.

Infrastructure Renewal and Affordability

This capital program continues our commitment to increase investments in the small diameter water mains and sewer lines to reduce the risk of system failures. Like other utilities, our pipes are nearing the end of, or have exceeded, their useful lives, and we are taking actions to renew this vital infrastructure.

The DC Water Clean Rivers Project is on track to meet all consent decree deadlines and improve the health of our waterways. The Anacostia River Tunnel is outperforming, capturing more than 90 percent of combined sewer overflows, conveying more than 7 billion gallons of combined sewage to Blue Plains for treatment and capturing over 3500 tons of trash.

DC Water has one of the most robust customer assistance programs (CAP) in the nation. We remain committed to assisting our low-income customers in paying their water bills. We are expanding the CAP program for the Clean Rivers discount, making the CAP2 program permanent, and recommended the District continues the CAP3 and Clean River Impervious Area Charge (CRIAC) Non-Profit Relief programs.

Partnerships

In 2018, we formed the **Stakeholder Alliance**, a diverse group of concerned residents, ratepayers and faith leaders in our community. They offer new ideas and, also provide feedback to their neighborhoods, families and friends, on their work and DC Water's challenges and successes.

DC Water began a formal partnership with the **Office of the People's Counsel (OPC)** in 2019. The OPC advocates for quality utility service and equitable treatment at rates that are reasonable and nondiscriminatory. Both organizations have approached this relationship with the customer in mind and we have found a true partner in OPC.

Another initiative is the Lead Free DC program. My goal is to remove all lead service lines by 2030. This is an ambitious goal, but together we must find alternative capital funding and contracting opportunities, and get the lead out of the water system.

I appreciate the support and service of the Board members, Executive Leadership Team and Team Blue to DC Water and the communities that we serve. DC Water will continue to thrive and leverage innovation to drive new value and provide the best possible service at reasonable rates to residents and ratepayers, and all those who visit the District of Columbia.



David L. Gadis

DC Water Budget Overview

FY 2021 Operating Budget of \$642.7 million

\$177.4 million
Pays the salaries, benefits and overtime costs for 1231 employees to achieve service levels

\$84.5 million

Other core operations like maintenance and repairs, software technology, legal, compliance, insurance, credit card fees, security and facilities

\$500,000
15 entry-level positions for the new apprenticeship program

\$101.3 million

For chemicals, supplies, water purchases, energy, telecoms and small equipment

\$4 million

Pay for Success for Green Infrastructure (GI) project, GI certification program and establishment of non-ratepayer expenditure fund

\$252.6 million

Other non-operational needs including debt service, Paygo

\$22.4 million
PILOT & ROW payments to the District

FY 2020-2029 Capital Investments of \$5.45 billion

\$1.3 billion for the DC Clean Rivers Project and CSOs

\$2.4 billion

Rehabilitation of water mains and sewer pipes

\$333 million

Capital Equipment including backhoes, jet-vacs and other specialized vehicles for crews to respond to emergencies

Improvements at Washington Aqueduct

\$195 million

\$59 million

Improve the condition and drainage of the stormwater pump stations

\$1.03 billion

Major upgrades and rehabilitation at our Wastewater Treatment Plant

\$137 million

Construct new Fleet and Sewer Facilities, renovate Historic Main Pump Station, restore Seawall



Multi-Year Rate Proposal

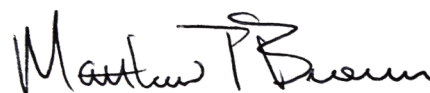
This year marks our third multi-year rate proposal. We conducted an Independent Review of Rate Structure and Customer Assistance Programs and advanced the 2021 Cost of Service Study to align with the rate proposal.

Due to recent debt refinancing and efforts to control costs, the rate increases are smaller than those previously forecasted. We are also taking current year savings and using them, through the Rate Stabilization Fund, over the next two years to limit the rate increases. The combined rate increase for the average household customer is lower from 8.1 percent forecasted last year to 6.6 percent for FY 2021 and from 6.9 percent to 6.7 percent for FY 2022 (calculated at 5.42Ccf).

Last year, we began shifting a portion of the Clean Rivers costs from a flat rate (Impervious Area Charge) to a sewer volumetric rate. This rate proposal continues the shift of 28 percent for FY 2021 and 37 percent for FY 2022 and provides ratepayers more control over their bills. A proposed increase in metering fee will increase cost recovery for metering-related and customer services.

Our ongoing commitment is to improve transparency for our customers. This year we established a dedicated webpage on the ratemaking and budget development processes. It contains a record of all the budget materials that were considered by the Board of Directors during their deliberations. During our ratemaking process we will solicit public comment and publish those comments on-line. We have also published our Cost of Service study so that anyone who wants to review it has that opportunity. We are also communicating the impact that our investments will have on the District, the region, and the health of its people and the economy.

Finally, I want to express my thanks to the entire Finance team for their efforts in continuing to improve and transform the budget process, including extensive outreach to and partnerships with departments. The team effort was instrumental in delivering a balanced budget that invests in our people, our infrastructure, and the environment.



Matthew T. Brown

With each budget we work to fund our operations and infrastructure investments, while limiting rate increases to only what is necessary. It is our ratepayers who provide us with the resources to provide clean drinking water, treat wastewater, and improve our environment. We invest in our water and sewer system to improve performance and reduce this risk of system failures, optimize business processes and leverage technology to reduce costs, and invest in our employees who work every day on behalf of our customers.

Capital Improvement Program

Our ten-year capital plan of \$5.45 billion doubles DC Water's investment in water and sewer infrastructure by FY 2022 to reach a one percent annual replacement cycle for water and sewer infrastructure and triples that investment by FY 2027 to reach a 1.5 percent replacement cycle. It also funds the federally mandated Clean Rivers Program and upgrades at the Blue Plains Advanced Wastewater Treatment Plant.

Operational Programs

The approved operating budget of \$642.7 million funds operations and pays for debt service for our capital program. Five new positions are included to meet the requirements of the DC Water Consumer Protection Amendment Act of 2018. We have also included funding to expand the Apprenticeship Program to support fifteen entry level positions. And we are expanding the Customer Assistance Program (CAP) by increasing the monthly benefit. Our CAP customers will see their bills decrease in the new fiscal year.

Budget at a Glance

Operating Expenditures (\$ Thousands)

Category	FY 2020 Approved	FY 2021 Approved
Authorized Headcount	1,223	1,231
Total Personnel Services	\$ 170,680	\$ 177,863
Chemicals	25,181	27,779
Supplies	7,977	8,302
Utilities	26,953	27,911
Contractual Services	81,886	88,532
Water Purchases	34,929	36,250
Small Equipment	989	1,030
Total Non-Personnel Services	\$ 177,914	\$ 189,804
Total Operations and Maintenance	\$ 348,594	\$ 367,668
Debt Service	215,340	222,268
PILOT & ROW	22,034	22,372
Payment in Lieu of Taxes	16,934	17,272
Right of Way	5,100	5,100
Cash Financed Capital Improvements	28,556	30,355
Total Debt Service/PILOT/ROW/CFCI	265,929	274,996
Total Operating Expenditure	\$ 614,523	\$ 642,663
Less: Capital Labor	(22,748)	(24,382)
Total Net Operating Expenditure	\$ 591,775	\$ 618,281

Capital Disbursements (\$ Thousands)

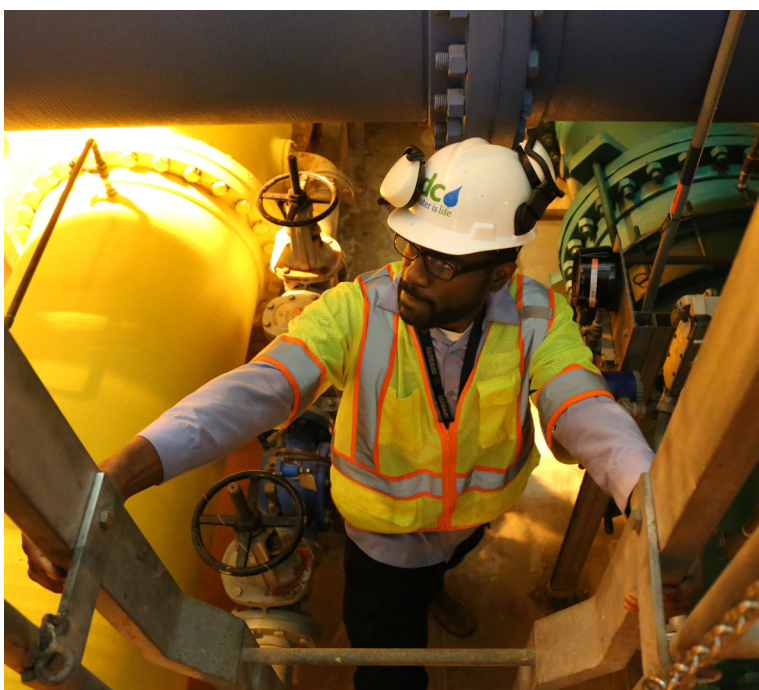
Service Areas	FY 2020 Revised	FY 2021 Approved
Non-Process Facilities	\$ 42,066	\$ 31,849
Wastewater Treatment	77,536	102,976
Clean Rivers	162,197	147,565
Combined Sewer	9,239	9,493
Stormwater	6,869	9,631
Sanitary Sewer	44,933	63,926
Water	62,163	88,677
Capital Projects	\$ 405,004	\$ 454,118
Capital Equipment	31,703	37,207
Washington Aqueduct	15,515	16,266
Additional Capital Programs	47,218	53,473
Total CIP	\$ 452,223	\$ 507,590

Operating Revenues (\$ Thousands)

Category	FY 2020 Approved	FY 2021 Proposed
Residential	\$ 124,353	\$ 130,803
Commercial	173,826	180,589
Multi-family	100,884	110,241
Federal Government	71,887	77,571
Municipal & Housing	28,110	30,318
Water System Replacement Fee	39,717	39,717
Metering Fee	10,776	15,405
Wholesale	82,539	81,986
Other Revenue	66,887	67,108
Total Operating Revenue	\$ 698,979	\$ 733,738

Capital Revenues (\$ Thousands)

Source	FY 2020 Revised	FY 2021 Proposed
Wholesale Capital Payments	\$ 71,640	\$ 95,205
EPA Grants & CSO Appropriations	32,700	28,464
Interest Income on Bond Proceeds	3,831	6,365
Pay-Go Financing	124,578	125,927
Debt Proceeds	300,000	300,000
System Availability Fee	5,775	7,700
Total Capital Revenue	\$ 538,524	\$ 563,661



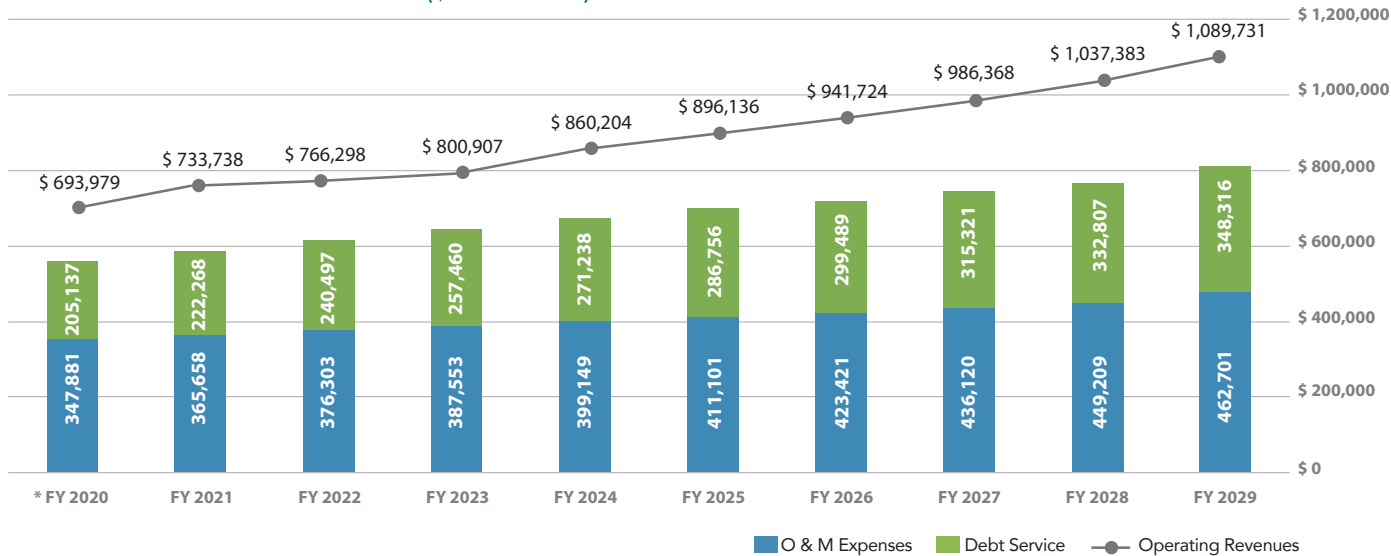
Anacostia Pumping Station inspection



Ten-Year Financial Outlook / Debt Management

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 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 or indenture requirements, and sufficient liquidity to meet all the Authority’s financial obligations.

FY 2020 - FY 2029 Financial Plan (\$ Thousands)



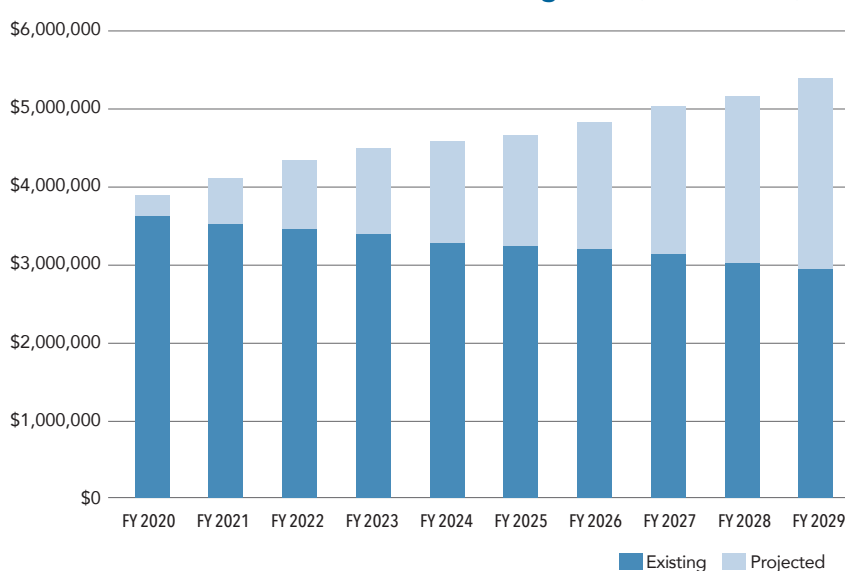
Debt Management

DC Water maintains strong financial performance and bond ratings. In August 2019, the authority’s senior lien public utility revenue bonds upgraded to ‘AA+’ from ‘AA’ by Fitch ratings. As the result, the credit ratings on our senior lien bonds are AAA, Aa1, and AA+ ratings by Standard and Poor’s Ratings Services, Moody’s Investors Service and Fitch Ratings. These notable results are due to the Authority’s solid finance team, outstanding financial performance, management of our capital program, and diligent financial and capital planning. Additional information for current and future investors is available at dcwater.com and dcwaterbonds.com.

debt service payments. DC Water plans to apply for a federal loan under the Water Infrastructure and Finance Innovation Act (WIFIA), administered by the Environmental Protection Agency (EPA). The Authority’s long term debt, including current maturities, total \$3.5 billion as of the end of FY 2019 and projected to increase over the next ten years mainly to invest in our aging infrastructure.

The Authority uses debt to finance its capital program and refund existing debt to obtain debt service saving. In November 2019, the authority issued \$300 million (Series A/B/C) in subordinate lien revenue bonds and \$343 million of subordinate lien revenue refunding bonds and able to save \$52 million on future

FY 2020- FY 2029 Current and Outstanding Debt (\$ Thousands)



Operating Budget



Blue Plains Advanced Wastewater Treatment Plant

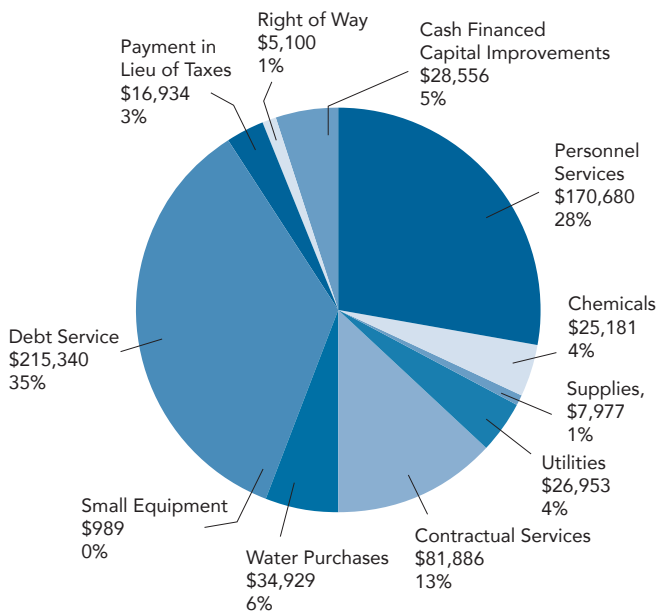
DC Water’s annual operating budgets provide the resources necessary to sustain a multi-billion dollar water treatment and distribution, sewage collection and treatment system. The Authority continues to deliver clean water, collect and treat the sewage before returning clean water to the local waterways and repair water main and sewer breaks as needed. The budget reflects management’s focus on supporting the most important asset with core values of reflecting people, pay and place while maintaining customer affordability and providing a high level of customer service.

The approved FY 2021 budget totals \$642.7 million, an increase of \$28.1 million or approximately 4.6 percent above the FY 2020 budget. The increase is mainly for the Operations & Maintenance (O&M) costs, and debt service required to finance the Authority’s Capital Improvement Program.

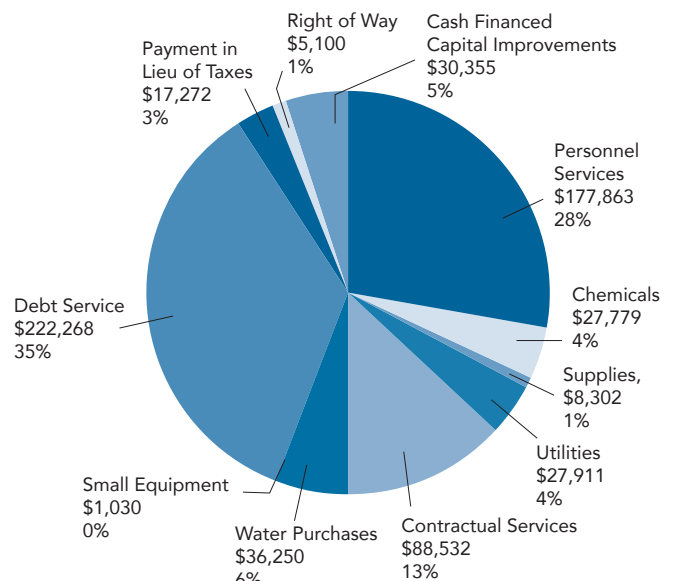
Detailed descriptions of the approved FY 2020 and FY 2021 operating budgets are available online at dcwater.com.

Comparative Operating Budgets by Category (\$ Thousands)

Approved FY 2020 \$614,523



Approved FY 2021 \$642,663





Capital Improvement Program (CIP)

DC Water’s ten-year Capital Improvement Program (CIP) provides a framework for the development, prioritization, implementation and measurement of the capital projects undertaken. The Board-approved FY 2020 – FY 2029 CIP disbursement budget increased by \$493.2 million over the previous plan. This budget doubles our investment in our aging water and sewer infrastructure to reach a one percent replacement per year by FY 2022, and ramp up to one-and-a half percent replacement per year starting FY 2027 and onwards for the small diameter water mains and small sewer lines. This plan also funds the Clean Rivers Program and advances major rehabilitation of the Potomac Interceptor.

The FY 2020 and FY 2021 capital budgets total \$452.2 million and \$507.6 million, respectively (cash disbursement basis), while the ten-year disbursement plan totals \$5.45 billion and lifetime budget is \$12.39 billion (total commitments for active projects prior to, during, and beyond the ten- year window).

Detailed descriptions 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 2020 – FY 2029 Capital Improvement Program (\$ Thousands)

FY 2020 Revised	FY 2021 Approved	Service Area	Ten-Year Disbursement Plan	Total Lifetime Budget
\$42,066	\$31,849	Non Process Facilities	\$137,479	\$221,841
77,536	102,976	Wastewater Treatment	1,049,252	3,698,301
171,436	157,058	Combined Sewer Overflow	1,311,366	3,041,740
6,869	9,631	Stormwater	58,690	122,404
44,933	63,926	Sanitary Sewer	1,228,922	2,094,934
62,163	88,677	Water	1,136,112	2,273,813
\$405,004	\$454,118	Capital Projects	\$4,921,821	\$11,453,035
31,703	37,207	Capital Equipment	333,015	333,015
15,515	16,266	Washington Aqueduct	195,178	195,178
\$47,218	\$53,473	Additional Capital Programs	\$528,193	\$528,193
		Labor		409,370
\$452,223	\$507,590	Total Capital Budgets	\$5,450,013	\$12,390,598

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 2020	\$174,384 39%	\$4,332	\$63,844	46,024	\$2,280	\$93,140 21%	\$468,219	\$452,223
FY 2021	147,209 29%	5,490	72,762	36,214	821	142,529 28%	102,565	507,590
FY 2022	179,572 29%	12,019	59,755	51,176	5,403	190,052 31%	113,041	611,008
FY 2023	129,073 24%	9,469	53,835	62,807	2,504	149,979 28%	123,655	531,323
FY 2024	67,830 15%	18,917	41,514	26,156	603	147,226 34%	135,949	438,195
FY 2025	60,177 13%	19,230	46,213	29,409	1,509	197,153 43%	107,503	461,193
FY 2026	148,771 26%	13,180	49,037	28,074	3,131	194,990 34%	142,909	580,092
FY 2027	103,265 18%	6,062	83,507	28,766	105	215,227 36%	153,045	589,978
FY 2028	88,890 14%	717	99,437	37,312	-	214,960 34%	187,088	628,405
FY 2029	115,049 18%	1,803	105,227	24,027	-	214,327 33%	190,574	650,007
TOTAL	\$1,214,221	\$91,219	\$674,131	\$369,956	\$16,356	\$1,759,583	\$1,324,547	\$5,450,013
% of Total	22.3%	1.7%	12.4%	6.8%	0.3%	32.3%	24.3%	100%

Major Capital Investments

Raw Wastewater Pumping Station 2

This facility delivers sixty percent of the wastewater from the collection system into Blue Plains. Rehabilitation of this project will improve safety and reliability and reduce corrective maintenance effort.



DC Clean Rivers

This project aims to control CSOs to the Anacostia and Potomac Rivers and Rock Creek to meet the District's water quality standards, while improving the health of the Chesapeake Bay. This ongoing project includes green infrastructure initiatives that will divert stormwater runoff prior to entering the sewer system.



Water Mains

Renewal of small diameter water pipes with the goal of ramping up to 1.5 percent replacements per year starting FY 2027 and onwards.



Ongoing and Local Sewer Rehabilitation

Renewal of small diameter sewer infrastructure will reduce emergency repair, including overtime and maintenance demands for these neighborhood sewers.



Heavy Duty Vehicles

Replacement of major heavy-duty equipment such as backhoes, jet-vacs, large meter trucks, and catch basin trucks will reduce vehicle downtime, improve fuel efficiency and lower maintenance and repairs.





Operating Revenues, Rates, Fees and Charges

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 Plant.

DC Water maintains a combination of fixed and variable fees. Fixed fees are charged regardless of water usage, and include the metering fee, Water System Replacement Fee and the Clean Rivers Impervious Area Charge. Variable fees are based on water usage, and include the water and sewer fees. DC Water conducts a Cost of Service Study (COS) to help ensure that costs are appropriately allocated. For example, the cost of delivering water to our customers is reflected in the water rate, and the cost of wastewater treatment is part of the sewer rate.

Independent Review of Rate Structure and Customer Assistance Programs:

In FY 2020, independent consultants conducted a review of rate structure, projected FY 2021 rates and Customer Assistance Programs and performed analysis of rates and Customer Assistance Programs for comparable jurisdictions (Benchmarking). The findings of the study concurred that DC Water’s current rate structure, customer classes, monthly water lifeline threshold of 4 Ccf, ERU basis for recovering the CRIAC charge, CAP bill discount and temporary assistance programs are consistent with industry standards. In response to recommendations in the review, DC Water has adjusted the Metering Fee and increased benefits for CAP customers.

2021 Cost of Service Study

In FY 2020, DC Water conducted Cost of Service Study (COS) to align the cost of providing service to the customers with the multi-year rate proposals, therefore both will be done every two years going forward. The COS consist of three components: i) Revenue Sufficiency Analysis –Do the proposed rates recover adequate revenue to meet expenditures; ii) Cost of Service Analysis/Rate Equity – Are proposed rates equitably recovering the costs of providing service to customers; and iii) Alternative Rate Structure Analysis – Are there alternative rate structures that may more effectively meet DC Water’s highest priority pricing objectives.

Multi-Year Rates:

DC Water Board approved its third multi-year rate proposal in FY 2020 covering the period FY 2021 and FY 2022. The FY 2021 and FY 2022 rates will be effective from October 1, 2020 and October 1, 2021, respectively. The benefits of multi-year rates include: greater revenue certainty, increased budget discipline and better alignment between revenues and expenditures.

Based on feedback from the new Stakeholder Alliance and discussions with the customers about the Clean Rivers Impervious Area Charge (CRIAC) that funds the Clean Rivers Program, the Board approved for FY 2020 a shift of 18 percent of the costs for the Clean Rivers program from the CRIAC to the sewer volumetric rate. The CRIAC shift will increase to 28 percent in FY 2021 and 37 percent in FY 2022. This is based on an assessment that, on average, 37 percent of the volume in the new tunnels is from wastewater.

Because of efforts to reduce the growth of operating costs, the overall charges for average household customer for FY 2021 are 6.6 percent as compared to 8.1 percent forecasted last year and 6.7 percent for FY 2022 as compared to 6.9 percent.

Operating Revenues (\$ Thousands)

Category	FY 2020 Revised	FY 2021 Proposed	FY 2022 Proposed
Residential	\$ 124,353	\$ 130,803	\$137,229
Commercial	173,826	180,589	191,375
Multi-family	100,884	110,241	116,768
Federal Government	71,887	77,571	67,220
Municipal & Housing	28,110	32,818	41,760
Water System Replacement Fee	39,717	39,717	39,717
Metering Fee	10,776	15,405	24,083
Wholesale	82,539	81,986	84,445
Other Revenue	66,887	64,608	63,701
Total Operating Revenue	\$ 698,979	\$ 733,738	\$ 766,298

FY 2020 - FY 2022 Retail Rates and Fees

Description of Fees	Units	FY 2020	FY 2021	FY 2022	FY 2021		FY 2022	
		Approved	Proposed	Proposed	Increase/Decrease	%	Increase/Decrease	%
DC Water Retail Rates – Water		\$	\$	\$	\$	%	\$	%
• Residential 0-4 Ccf (Lifeline) ²	Ccf	\$3.06	\$3.49	\$3.63	\$0.43	14.1%	\$0.14	4.0%
• Residential – > 4 Ccf ²	Ccf	\$4.10	\$4.50	\$4.74	\$0.40	9.8%	\$0.24	5.3%
• Multi-family / DC Housing ²	Ccf	\$3.54	\$3.96	\$4.15	\$0.42	11.9%	\$0.19	4.8%
• Non-Residential	Ccf	\$4.25	\$4.65	\$4.91	\$0.40	9.4%	\$0.26	5.6%
DC Water Retail Rates – Sewer	Ccf	\$8.89	\$9.77	\$10.64	\$0.88	9.9%	\$0.87	8.9%
DC Water Clean Rivers IAC	ERU	\$20.94	\$19.52	\$18.40	(\$1.42)	(6.8%)	(\$1.12)	(5.7%)
DC Water Customer Metering Fee	5/8"	\$3.86	\$4.96	\$7.75	\$1.10	28.5%	\$2.79	56.3%
DC Water System Replacement Fee ¹	5/8"	\$6.30	\$6.30	\$6.30	\$0.00	0.0%	\$0.00	0.0%
District of Columbia PILOT Fee	Ccf	\$0.51	\$0.54	\$0.56	\$0.03	5.9%	\$0.02	3.7%
District of Columbia Right-of-Way Fee	Ccf	\$0.19	\$0.19	\$0.19	\$0.00	0.0%	\$0.00	0.0%
District of Columbia Stormwater Fee	ERU	\$2.67	\$2.67	\$2.67	\$0.00	0.0%	\$0.00	0.0%

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

(2) Proposed Class-Based rates



Clean Rivers Impervious Area Charge (CRIAC)

The CRIAC is a separate sewer service fee established in FY 2009 to recover the \$2.8 billion cost of implementing the DC Clean Rivers Project (the District's CSO-Long Term Control Program). The proposed monthly CRIAC ranges from \$20.94 per Equivalent Residential Unit (ERU) in FY 2020 to \$26.78 per ERU in FY 2029. From 2009 until 2019, all funds for the Clean Rivers program have come from the Clean Rivers Impervious Area Charge (CRIAC) which is assessed for all customers based on the amount of impervious surface on each property. The ten-year plan assumes no external funding beyond the special Congressional appropriation. DC Water has received \$260.8 million through Federal appropriations as of September 30, 2019.

During FY 2019, the Board approved a proposed change in the way Clean Rivers costs are recovered starting in

FY 2020. The proposed budget is to phase-in a CRIAC shift of 18 percent in FY 2020, 28 percent in FY 2021 and 37 percent in FY 2022 and beyond to sewer volumetric rate based on methodology that allocates volume of Sanitary Wastewater, Stormwater runoff and CSO in the Clean Rivers Tunnel. Shifting some of the Clean Rivers cost recovery to the volumetric rate gives customers more control over the amount that they pay towards the project. The change is expected to improve equity in the funding for the clean Rivers program. Small volume customers in every class generally pay less and average residential customers pay about the same prior to the change. In FY 2020, the CRIAC discount increased from 4 percent to 20 percent for customers who implement Stormwater Best Management Practices.



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 data (2018), DC Water's rates are well under that target and they are comparable with similar water and wastewater utilities.

DC Water in partnership with the District, supports the following 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 2017, the Authority further expanded CAP to include 50 percent discount for CRIAC. In FY 2020, the Board approved the increase in CRIAC discount for CAP customers to 75 percent effective from FY 2021. In FY 2019, CAP assisted over 4,436 customers and provided \$1,290,797 in discounts to low-income customers.

CAP 2: this was implemented in December 2018 to expand the CAP program for low-income residential customers with household income up to 80 percent Area Median Income (AMI) who do not qualify for CAP. Eligible customers receive a discount of up to 3 Ccf per month for water and sewer and a 50 percent discount for CRIAC. In FY2020, the Board approved to make CAP 2 permanent effective FY 2021.

CAP 3: is a District-funded program implemented in December 2018 that provides benefits to DC Water customers with household income greater than 80 percent and up to 100 percent Area Median Income (AMI) who do not qualify for CAP or CAP2. Eligible customers receive 75 percent discount for CRIAC.

CRIAC (Clean Rivers Impervious Area Charge) Non-profit Relief Program: is a District-funded program implemented in December 2018 to provide up to 90 percent of CRIAC discounts to nonprofit organizations as determined by the District Department of the Environment (DOEE).

Serving People by Lending a Supporting Hand (SPLASH): 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 2019, SPLASH assisted 276 households and provided \$84,427 in contributions to low-income customers.

Regional Demographics

DC Water provides water and wastewater services to retail customers in the District and wastewater treatment services on a wholesale basis to portions of Montgomery County and Prince George's County in Maryland and Fairfax and Loudon Counties in Virginia, serving about 1.6 million people. Despite increasing population and visitors, water consumption is declining through improved fixture efficiency and conservation. Reduced usage is excellent for the environment but places more strain on the 132,576 retail customers with the responsibility to pay for majority of the operations, maintenance and replacement of the water and sewer infrastructure throughout Washington, DC. Wholesale customers pay a relatively modest portion of the total cost of service.

The FY 2021 budget incorporates trends and statistics impacting DC and the region. It also highlights how the diversity of the DC Water revenue stream is helping to address the need for continuous improvement in the water, wastewater and stormwater system.

FY 2020 - FY 2022 Average Residential Customer Monthly Bill

dc DC WATER RATES AND FEES	Approved (FY 2020)	Proposed (FY 2021)	Proposed (FY 2022)
Water / Sewer Retail Rates (Ccf) ⁽¹⁾	\$66.25	\$73.30	\$78.92
Clean Rivers IAC (ERU) ⁽²⁾	\$20.94	\$19.52	\$18.40
Customer Metering Fee	\$3.86	\$4.96	\$7.75
Water System Replacement Fee ⁽²⁾	\$6.30	\$6.30	\$6.30
DC Water Subtotal	\$97.35	\$104.08	\$111.37
Percent Increase in DC Water Portion of Bill	5.4%	6.9%	7.0%

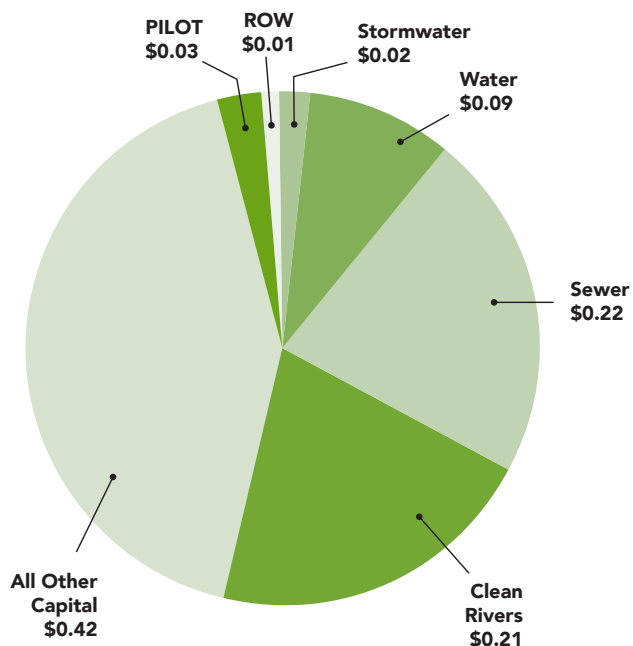
DISTRICT OF COLUMBIA CHARGES			
PILOT (Ccf) ⁽¹⁾	\$2.76	\$2.93	\$3.04
Right-of-Way Fee (Ccf) ⁽¹⁾	\$1.03	\$1.03	\$1.03
Stormwater Fee (ERU) ⁽³⁾	\$2.67	\$2.67	\$2.67
District Subtotal	\$6.46	\$6.63	\$6.74

Total Bill	\$103.81	\$110.71	\$118.11
(% Increase)	5.2%	6.6%	6.7%

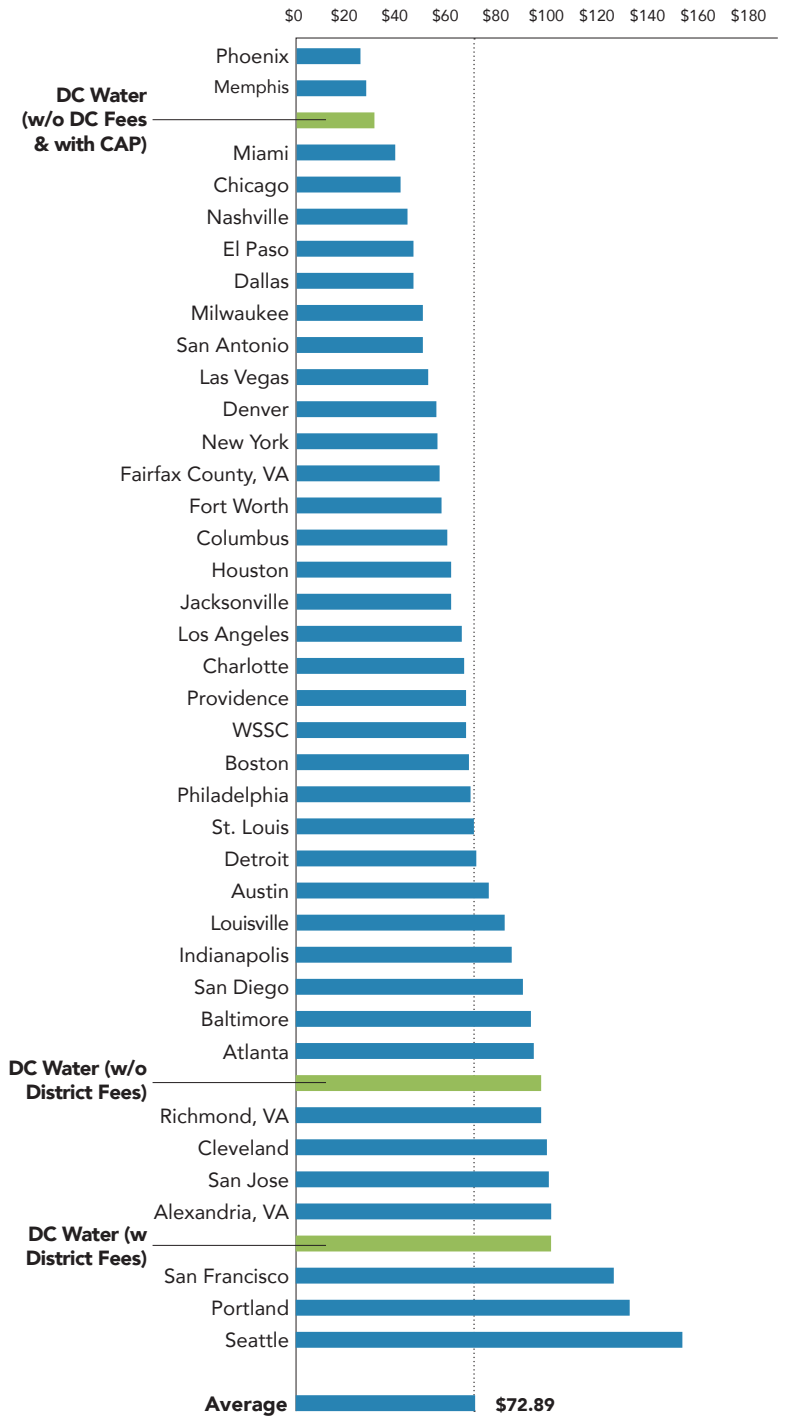
- (1) Assumes average monthly consumption of 5.42 Ccf, or (4,054 gallons)
- (2) Assumes average 1 Equivalent Residential Unit (ERU)
- (3) District Department of the Environment stormwater fee of \$2.67 effective November 1, 2010
- (4) DC Water "Water System Replacement Fee" of \$6.30 for 5/8" meter size effective October 1, 2015

FY 2021: Where Does Your Money Go?

How does DC Water spend each dollar received from the average residential customer?

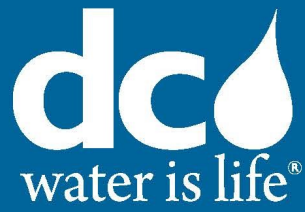


DC Water Retail Rates Compared to other Large Utilities





dcwater.com



Approved FY 2021 Budgets
Section II: OVERVIEW

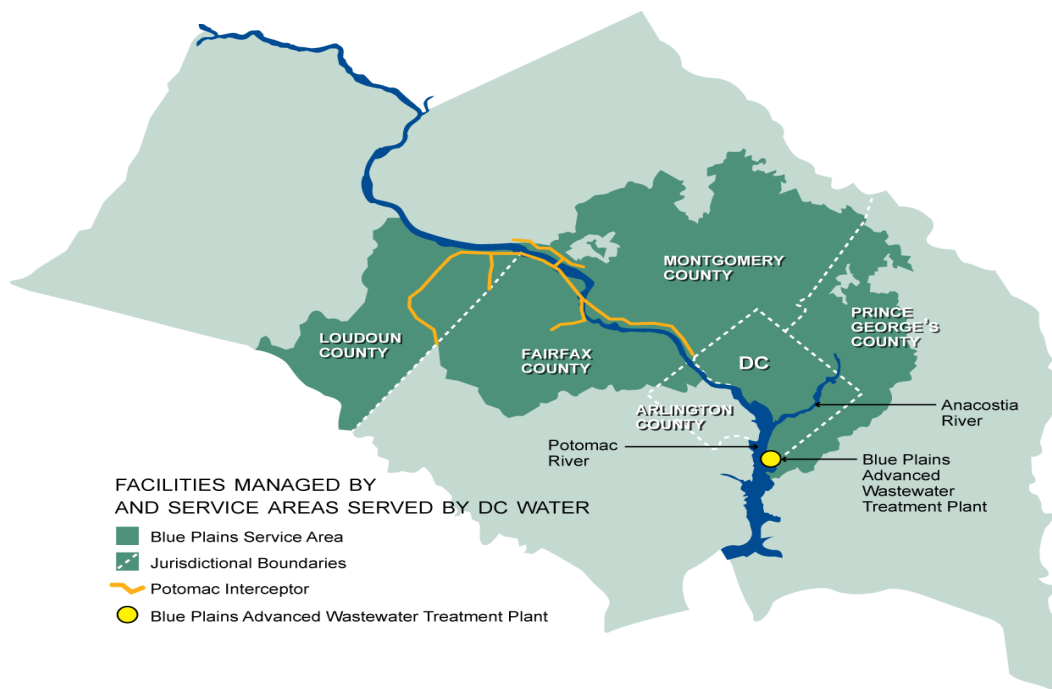


Blue Plains Advanced Wastewater Treatment Plant

History: The District of Columbia Water and Sewer Authority (DCWASA), was created by District law in 1996, with the approval of the United States Congress, as an independent authority of the District Government with a separate legal existence. In 2010, the Authority rebranded and became DC Water. DC Water is the sole water and sewer utility in the District of Columbia.

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 1900’s and 2 percent dating back to the 1860s before the Civil War.

Service Area: Providing approximately 700,000 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.



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. DC Water, in partnership with the U.S. Army Corps of Engineer’s Washington Aqueduct, ensures a high-quality treatment process for delivering outstanding drinking water throughout the year. DC Water purchases water produced by the Aqueduct and distributes to its customers in the District of Columbia.

Pumped and Treated Water Storage: During Fiscal Year 2019, DC Water pumped an average of 96.4 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 roughly 1,350 miles of interconnected pipes, four pumping stations, five reservoirs, four water tanks, 43,860 valves, and 9,510 fire hydrants.

Sewer System: DC Water operates 2,000 miles of combined, separate, and stormwater sewers; 50,000 manholes and 25,000 catch basins; nine off-site wastewater pumping stations, one combined sewer swirl facility and 16 stormwater pumping stations.

Blue Plains Advanced Wastewater Treatment Plant (BPAWWTP): Blue Plains, located at the southernmost tip of the District, is the largest advanced wastewater treatment facility in the world, covering 150 acres along the Potomac River. Recycled water from the Blue Plains Plant, is used in the treatment of wastewater and is not sold for retail use.

Wastewater Treatment Capacity: Blue Plains treats an annual average of 320 million gallons per day (MGD) and has a design capacity of 384 MGD, with a peak design capacity to treat more than one billion gallons per day.

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

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

DC Water’s new Customer Information System (CIS) provides an integrated environment that enrolls new customers, generates billings, manages credit and collections, and tracks water consumption. CIS also tracks and manages meters, handles customer inquiries, complaints, and service orders as well as provides call center support.

Community Service: Donating its time and resources, DC Water strives to be present at events that align with its mission and allows the Authority to engage with the residents about pertinent projects and services. Employees actively support a variety of charitable projects and community services. DC Water also invests in the community; conducting science laboratory exercises in District high schools and engaging the public through tours of the Blue Plains Plant.



Facts at a Glance

Community Outreach: Maintaining an active presence in the community through sharing time and resources is a core value at DC Water. Employees participate in meetings and community events throughout the District; invite the public to the BPAWWTP and new headquarters building; and provide hands-on-lessons, field trips and environmental education events to more than 2,000 students in our service area during the school year. DC Water seeks to educate and support its customers as stewards of the environment.

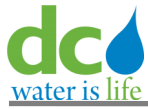
Employees: Approximately 1,100 people are employed by DC Water and work at various facilities across the District of Columbia to provide vital services to our customers.

Governance: DC Water’s Board of Directors establishes policies and guides the strategic planning process. The Board is composed of 22 members, (11 principals and 11 alternates) 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 and General Manager reports to the Board and manages operations and performance of the enterprise. The members of the Board of Directors also serve on various Sub Committees: DC Retail Water & Sewer Rate; Environmental Quality and Operations; Finance and Budget; Governance; Human Resources and Labor Relations; Strategic Planning and Audit.

Financial Performance: In August 2019, Fitch Ratings upgraded DC Water’s credit rating to AA+ for senior lien revenue bonds and the Authority maintained AAA credit rating by S&P and an Aa1 by Moody’s. DC Water also maintained a GB1 rating for green bonds, Moody’s highest possible green bond assessment. DC Water also received its 22nd consecutive unqualified audit opinion of its financial statements and 19th consecutive Distinguished Budget Presentation Award from the Government Finance Officers Association (GFOA) .

DC Water Financial Information (\$ Millions)

Bond Rating: AAA/Aa1/AA+	FY 2020	FY 2021
Revenue (Cash Receipts)	\$ 699.0	\$ 733.7
Operating Expenditure Budget	\$ 591.8	\$ 618.3
Capital Disbursement Budget	\$ 452.2	\$ 507.6



Budget Summary

The chart below highlights DC Water’s operating expenditures, capital disbursements, revenues, rates and fees.

Description	Unit of Measure	FY 2020 Revised	FY 2021 Proposed	FY 2022 Proposed	FY 2021 vs FY 2020 Increase /(Decrease)	FY 2022 vs FY 2021 Increase /(Decrease)
Total Operating Expenditure	\$ in thousands	\$614,523	\$642,663	\$654,630	\$28,140	\$11,967
Capital Disbursements	\$ in thousands	\$452,223	\$507,590	\$611,008	\$55,367	\$103,418
Ten-Year CIP (Cash Disbursement)	\$ in billions	\$4.96	\$5.45	N/A	\$0.49	N/A
Total Operating Revenue	\$ in thousands	\$698,979	\$733,738	\$766,298	\$34,759	\$32,560
Wholesale Operating Revenues	\$ in thousands	\$82,539	\$81,986	\$84,445	(\$553)	\$2,459
Residential 0-4 Ccf (Lifeline) ²	Ccf	\$3.06	\$3.49	\$3.63	\$0.43	\$0.14
Residential - > 4 Ccf ²	Ccf	\$4.10	\$4.50	\$4.74	\$0.40	\$0.24
Multi-family / DC Housing ²	Ccf	\$3.54	\$3.96	\$4.15	\$0.42	\$0.19
Non-Residential	Ccf	\$4.25	\$4.65	\$4.91	\$0.40	\$0.26
DC Water Retail Rates – Sewer	Ccf	\$8.89	\$9.77	\$10.64	\$0.88	\$0.87
DC Water Clean Rivers IAC	ERU	\$20.94	\$19.52	\$18.40	(\$1.42)	(\$1.12)
DC Water Customer Metering Fee	5/8"	\$3.86	\$4.96	\$7.75	\$1.10	\$2.79
Water System Replacement Fee ¹	5/8"	\$6.30	\$6.30	\$6.30	\$0.00	\$0.00
PILOT Fee	Ccf	\$0.51	\$0.54	\$0.56	\$0.03	\$0.02
Right of Way Fee	Ccf	\$0.19	\$0.19	\$0.19	\$0.00	\$0.00
Stormwater Fee	ERU	\$2.67	\$2.67	\$2.67	\$0.00	\$0.00

Ccf - hundred cubic feet or 748 gallons
 (1) DC WATER WSRF of \$6.30 effective October 1, 2015.
 (2) Proposed Class-Based rates

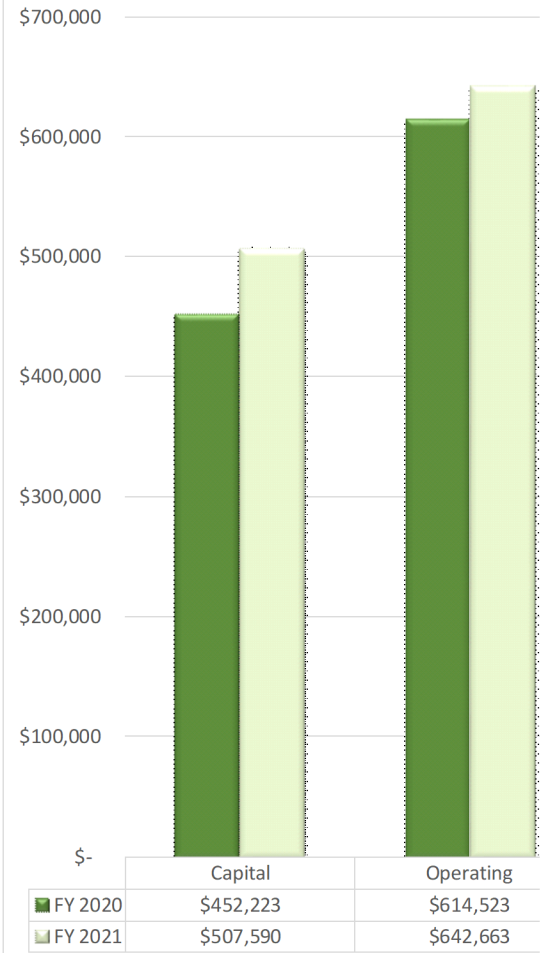


Comparative Capital & Operating Expenditures

\$ in thousands

Capital and Operating Budgets Ensure Service Needs and Strategic Objectives are Met

	APPROVED FY 2020	APPROVED FY 2021
CAPITAL (Cash Disbursements Basis)*		
Wastewater Treatment	\$ 77,536	\$ 102,976
Sanitary Sewer	44,933	63,926
Combined Sewer Overflow	171,436	157,058
Stormwater	6,869	9,631
Water	62,163	88,677
Washington Aqueduct	15,515	16,266
Capital Equipment	31,703	37,207
Non Process Facilities	42,066	31,849
Total Capital	\$ 452,223	\$ 507,590
OPERATING		
Personnel Services	\$ 170,680	\$ 177,863
Contractual Services	81,886	88,532
Water Purchases	34,929	36,250
Chemicals and Supplies	33,158	36,081
Utilities	26,953	27,911
Small Equipment	989	1,030
Total O&M	348,594	367,668
Debt Service	215,340	222,268
Cash Financed Capital Improvements	28,556	30,355
Payment in Lieu of Taxes	16,934	17,272
Right of Way Fees	5,100	5,100
Subtotal Operating	614,524	642,663
Personnel Services charged to Capital Projects	(22,748)	(24,382)
Net Operating	\$ 591,776	\$ 618,281



*Reflect revisions to FY 2020 capital disbursement budget during the FY 2021 cycle.



Comparative Capital & Operating Revenues

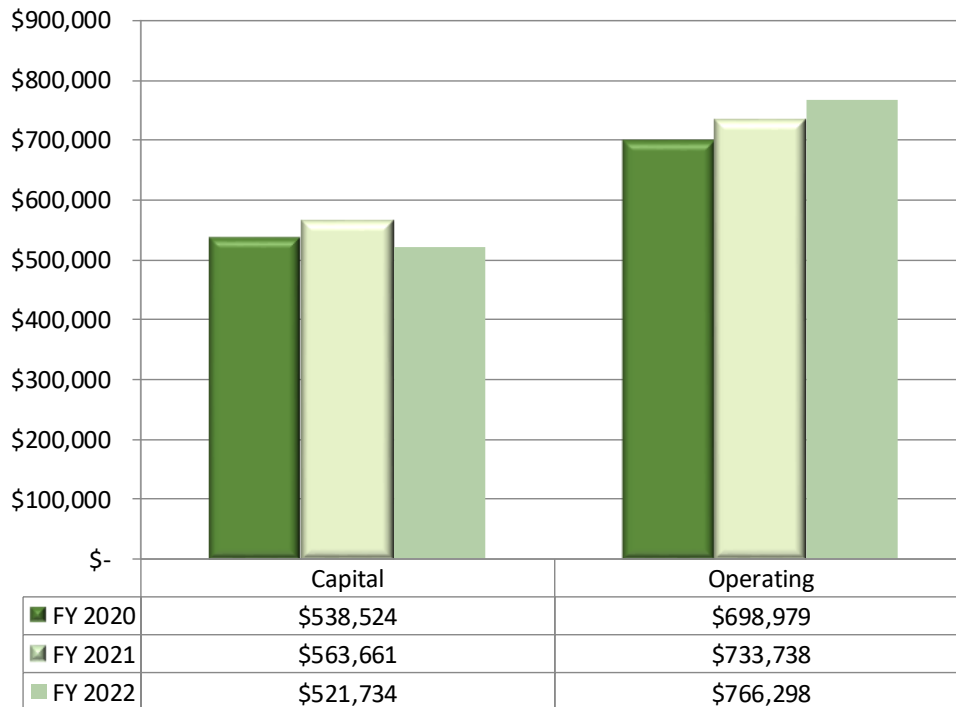
\$ in thousands

Capital and Operating Budgets Ensure Revenue Sufficiency to Maintain Service Levels

	REVISED FY 2020	PROPOSED FY 2021	PROPOSED FY 2022
CAPITAL			
Wholesale Capital Payments	\$ 71,640	\$ 95,205	\$ 99,550
EPA Grants & CSO Appropriations	32,700	28,464	16,655
Interest Income on Bond Proceeds	3,831	6,365	5,382
Pay-Go-Financing	124,578	125,927	127,307
Revenue Bonds/Commercial Paper/EMCP*	300,000	300,000	265,140
System Availability Fee	5,775	7,700	7,700
Total Capital Revenue	\$ 538,524	\$ 563,661	\$ 521,734

OPERATING			
Residential	124,353	130,803	137,229
Commercial	173,826	180,589	191,375
Multi-Family	100,884	110,241	116,768
Federal Government	71,887	77,571	67,220
Municipal & Housing	28,110	30,318	31,260
Water System Replacement Fee (WSRF)	39,717	39,717	39,717
Metering Fee	10,776	15,405	24,083
Wholesale	82,539	81,986	84,445
Other Revenue	66,887	67,108	74,201
Total Operating Revenue	\$ 698,979	\$ 733,738	\$ 766,298

* Extendable Municipal Commercial Paper



- Water and Sewer volumetric rates are listed below:
 - Residential customers: “Consumption of 0 – 4 Ccf” water rate increase of \$0.15 per Ccf to \$3.06 per Ccf, {increase of \$0.20 to \$4.09 per 1,000 gallons}
 - Residential customers: “Consumption greater than 4 Ccf” water rate increase of \$0.20 per Ccf to \$4.10 per Ccf, {increase of \$0.27 to \$5.48 per 1,000 gallons}
 - Multi-family customers: water rate increase of \$0.17 per Ccf to \$3.54 per Ccf, {increase of \$0.22 to \$4.73 per 1,000 gallons}
 - Non-residential customers: water rate increase of \$0.20 per Ccf to \$4.25 per Ccf, {increase of \$0.26 to \$5.68 per 1,000 gallons}
- Sewer rate increase of \$1.14 per Ccf to \$8.89 per Ccf, {increase of \$1.53 to \$11.89 per 1,000 gallons}
- Monthly Clean Rivers Impervious Area Charge decrease of \$2.06 to \$20.94 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 \$0.51 per Ccf {increase of \$0.01 to \$0.68 per 1,000 gallons}
- ROW fee increase of \$0.01 per Ccf to \$0.19 per Ccf {increase of \$0.01 per Ccf to \$0.25 per 1,000 gallons}

Ccf is equivalent to hundred cubic feet or 748 gallons

- Water and Sewer volumetric rates are listed below:
 - Residential customers: “Consumption of 0 – 4 Ccf” water rate increase of \$0.43 per Ccf to \$3.49 per Ccf, {increase of \$0.58 to \$4.67 per 1,000 gallons}
 - Residential customers: “Consumption greater than 4 Ccf” water rate increase of \$0.40 per Ccf to \$4.50 per Ccf, {increase of \$0.54 to \$6.02 per 1,000 gallons}
 - Multi-family customers: water rate increase of \$0.42 per Ccf to \$3.96 per Ccf, {increase of \$0.56 to \$5.29 per 1,000 gallons}
 - Non-residential customers: water rate increase of \$0.40 per Ccf to \$4.65 per Ccf, {increase of \$0.54 to \$6.22 per 1,000 gallons}
- Sewer rate increase of \$0.88 per Ccf to \$9.77 per Ccf, {increase of \$1.17 to \$13.06 per 1,000 gallons}
- Monthly Clean Rivers Impervious Area Charge decrease of \$1.42 to \$19.52 per ERU to recover the costs of the DC Clean Rivers Project
- Monthly Customer Metering Fee increase of \$1.10 from \$3.86 to \$4.96 for a 5/8” meter size. The Customer Metering fee varies by size.
- 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 \$0.03 per Ccf to \$0.54 per Ccf {increase of \$0.04 to \$0.72 per 1,000 gallons}
- No increase in ROW fee, which remains the same at \$0.19 per Ccf {\$0.25 per 1,000 gallons}

Ccf is equivalent to hundred cubic feet or 748 gallons

- Water and Sewer volumetric rates are listed below:
 - Residential customers: “Consumption of 0 – 4 Ccf” water rate increase of \$0.14 per Ccf to \$3.63 per Ccf, {increase of \$0.18 to \$4.85 per 1,000 gallons}
 - Residential customers: “Consumption greater than 4 Ccf” water rate increase of \$0.24 per Ccf to \$4.74 per Ccf, {increase of \$0.32 to \$6.34 per 1,000 gallons}
 - Multi-family customers: water rate increase of \$0.19 per Ccf to \$4.15 per Ccf, {increase of \$0.26 to \$5.55 per 1,000 gallons}
 - Non-residential customers: water rate increase of \$0.26 per Ccf to \$4.91 per Ccf, {increase of \$0.34 to \$6.56 per 1,000 gallons}
- Sewer rate increase of \$0.87 per Ccf to \$10.64 per Ccf, {increase of \$1.16 to \$14.22 per 1,000 gallons}
- Monthly Clean Rivers Impervious Area Charge decrease of \$1.12 to \$18.40 per ERU to recover the costs of the DC Clean Rivers Project
- Monthly Customer Metering Fee increase of \$2.79 from \$4.96 to \$7.75 for a 5/8” meter size. The Customer Metering fee varies by size.
- 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 \$0.02 per Ccf to \$0.56 per Ccf {increase of \$0.03 to \$0.75 per 1,000 gallons}
- No increase in ROW fee, which remains the same at \$0.19 per Ccf {\$0.25 per 1,000 gallons}

Ccf is equivalent to hundred cubic feet or 748 gallons



Cash Flow Summary

\$ in thousands

	FY 2019 Actual	FY 2020 Revised	FY 2021 Proposed	FY 2022 Proposed
OPERATING BUDGET				
Operating Revenue				
Residential, Commercial & Multi-Family	\$ 308,558	\$ 332,704	\$ 357,363	\$ 381,425
Federal	42,634	47,940	56,031	50,276
Municipal	7,785	10,052	10,714	11,445
D.C. Housing Authority	9,692	9,235	10,806	11,521
Groundwater	-	5	5	5
Water System Replacement Fee (WSRF)	40,660	39,717	39,717	39,717
Metering Fee	11,613	10,776	15,405	24,083
Payment in Lieu of Taxes / Right of Way Fee	21,076	22,113	22,463	22,844
Clean Rivers IAC Revenue	122,188	99,123	94,604	89,179
Sub-total Retail	564,206	571,666	607,107	630,495
Wholesale	82,116	82,539	81,986	84,445
Interest Earnings	2,775	3,396	3,019	3,296
Transfer from Rate Stabilization Fund	6,000	-	2,500	10,500
Other Operating Rev ⁽¹⁾	38,723	40,808	38,717	37,131
Total Operating Revenue⁽¹⁾	693,819	698,409	733,328	765,868
Operating Expenditures				
Personnel Services	139,408	147,932	153,482	159,621
Contractual Services	78,951	81,886	88,532	88,641
Chemicals & Supplies	39,213	33,158	36,081	37,524
Utilities & Rent	24,471	26,953	27,911	29,027
Water Purchases	32,008	34,929	36,250	37,700
Small Equipment	478	989	1,030	1,071
Subtotal - Operating Expenditures	314,529	325,847	343,286	353,585
Payment in Lieu of Taxes / Right of Way Fee	21,702	22,034	22,372	22,718
Debt Service	193,035	205,137	222,268	240,497
Cash Financed Capital Improvements/Defeasance	26,999	28,556	30,355	37,830
Total Operating Disbursements	556,265	581,574	618,281	654,630
CAPITAL Disbursements (See Section VI for more details)				
Sources of Capital Funds	189,541	538,524	563,661	521,734
Uses of Capital Funds	399,366	452,221	507,590	611,008
Capital Disbursements Overage / (Shortage)	(209,826)	86,303	56,071	(89,274)
CASH RESERVES				
Beginning O&M Reserve Balance (Net of Rate Stabilization Fund)	166,796	186,764	180,000	185,000
Operating Surplus	137,554	116,835	115,047	111,238
Wholesale Customer Refunds/Payments for Prior Years	(10,940)	(5,599)	(5,417)	(5,490)
Transfer to Rate Stabilization Fund	(6,000)	(13,000)	-	-
Federal Customer Refund/Payments for Prior Years	(5,753)	227	2,233	-
Transfer to CAP Fund	(10,246)	-	-	-
DC Fleet Reimbursement	1,719	-	-	-
Interest Earned from Bond Reserve	618	570	410	430
Pay-As-You-Go Capital Financing	(86,982)	(101,797)	(103,272)	(97,178)
Project Billing Refunds	-	(4,000)	(4,000)	-
Ending O&M Reserve Balance (Net of Rate Stabilization Fund)	186,764	180,000	185,000	194,000
Rate Stabilization Fund	\$ 61,450	\$ 74,450	\$ 71,950	\$ 61,450

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

In the early history of Washington, DC, water and sewer operated as separate entities. Early incarnations of the agency we now call DC Water included the District of Columbia Water Board (1859—1872) and the District of Columbia Board of Public Works (1872—1932).

Beginning in 1932, the Agency operated as the District of Columbia Department of Sanitary Engineering and constructed the first sewage treatment plant at Blue Plains. The Agency went through another transition to the District of Columbia Department of Environmental Services in 1971, then operated as the Water and Sewer Utility Administration (WASUA) under the Department of Public Works from 1985 to 1996.

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, is required to approve any Board action; except, that 7 affirmative votes are required for approval of the Authority's budget and 8 affirmative votes are 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. Rate 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 many operating weaknesses. 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. Today, DC Water is one of the best utilities not only in North America but in the world.

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 of Columbia 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. In FY 2018 we issued 36 thousand alerts to over 16 thousand customers.

Basis of Accounting

DC Water is a single enterprise fund and maintains accounting records using the modified 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 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

Typically in May or June, the CEO & General Manager and CFO kick off the budget season. In July, 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 August and in early September, departments complete budget reviews with budget staff, and in September and October, reviews are held with the Executive Team and with the CEO & General Manager in tandem.

Typically, in December 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 Operations Services, DC Water Retail Water and Sewer Rates and Finance and Budget Committees for their review. The budget is proposed for the following fiscal year (e.g. beginning October 1, 2020). The Committees review the budget documents in December through February and submit budget recommendations to the full Board in March. Typically, decisions are finalized and Board action on the budget is taken between March and April.

Upon budget adoption, the Budget Office 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 Finance Department 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.

Amendment Process

The CEO & General Manager has control over the budget as approved by the U.S. Congress, at the appropriation level, i.e., DC Water’s overall approved operating budget and capital authority at the Authority-wide level in the capital budget. The CEO & General Manager has the authority to approve budget reprogramming between departments. Any additional budget spending above the budget appropriation level requires approval from the U.S. Congress.





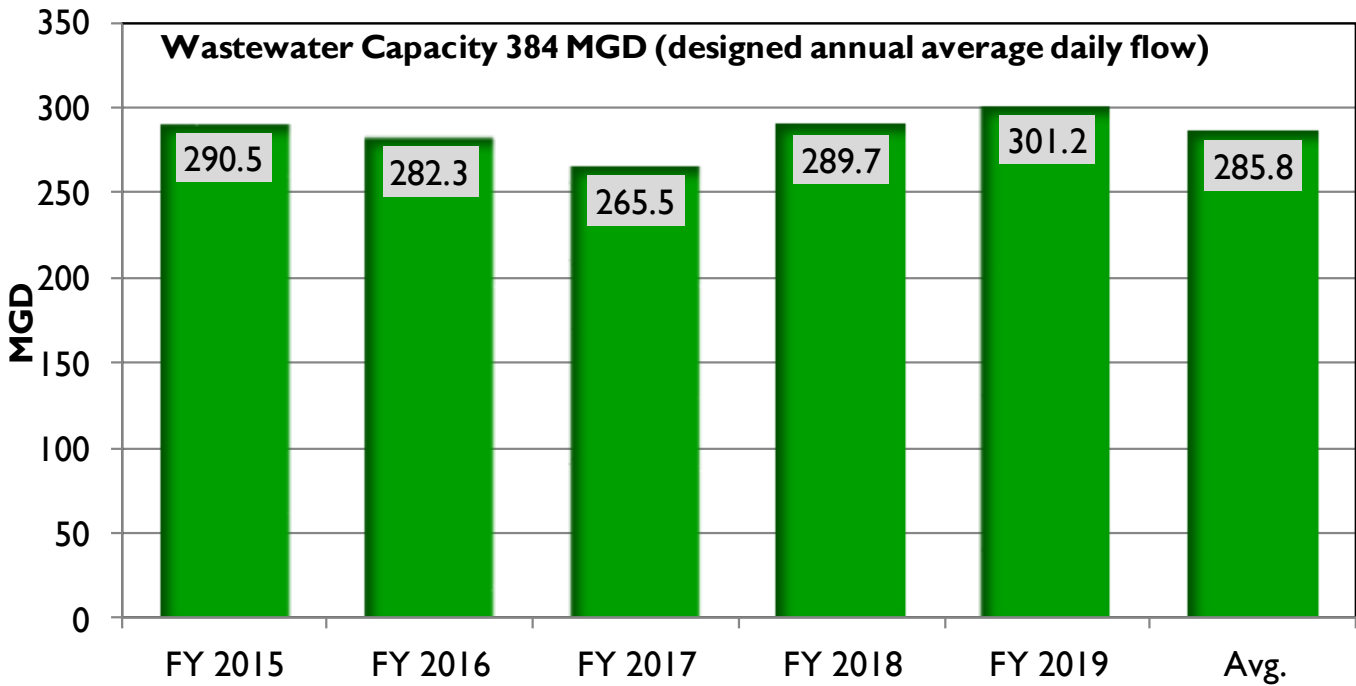
FY 2021 Budget Calendar

Month	Activity
July 31	Chief Executive Officer (CEO) & General Manager's (GM) Budget Kickoff Meeting
August 2	Distribution of budget templates and guidelines
August	Guidance/Training for Departments
September 13	Departmental FY 2021 budget submission to Budget Office
September 25	Chief Financial Officer Briefing on Departmental Budget Requests
October 15 –31	Departmental FY 2021 Operating and Capital Equipment Budget Reviews with the Chief Executive Officer, Chief Financial Officer and the Budget Office
October 17	Environmental Quality & Operations Committee Review of Capital Improvement Program
November 5	Executive Team Briefing (Operating and Ten-year Capital Improvement Program)
November 19	Finance & Budget Committee Review of Operating Budget Drivers DC Retail Water & Sewer Rates Committee Review of Independent Review of Rate
November 21	Environmental Quality & Operations Committee Review of Capital Improvement Program
December	Finalize Ten-Year Financial Plan (Operating, Capital Improvement Program, Revenues, Rates & Fees) Transmittal of CEO's & GM's Final Budget Proposal to Executive Vice Presidents & Department Heads
January 2	Budget Workshop - Board Briefing of the CEO & GM's Proposed FY 2021 Budgets
January 9	Stakeholder Alliance Discussion
January 10	Wholesale Customer Briefing
January	Board Committees Conducted in-depth Review of Budget Proposal
February	Board Committees Forward Recommendations to Full Board for deliberation/action Budget Book Preparation & Production
March 5	Board Adoption Submission to the District of Columbia for onward transmission to U.S. Congress

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 384 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

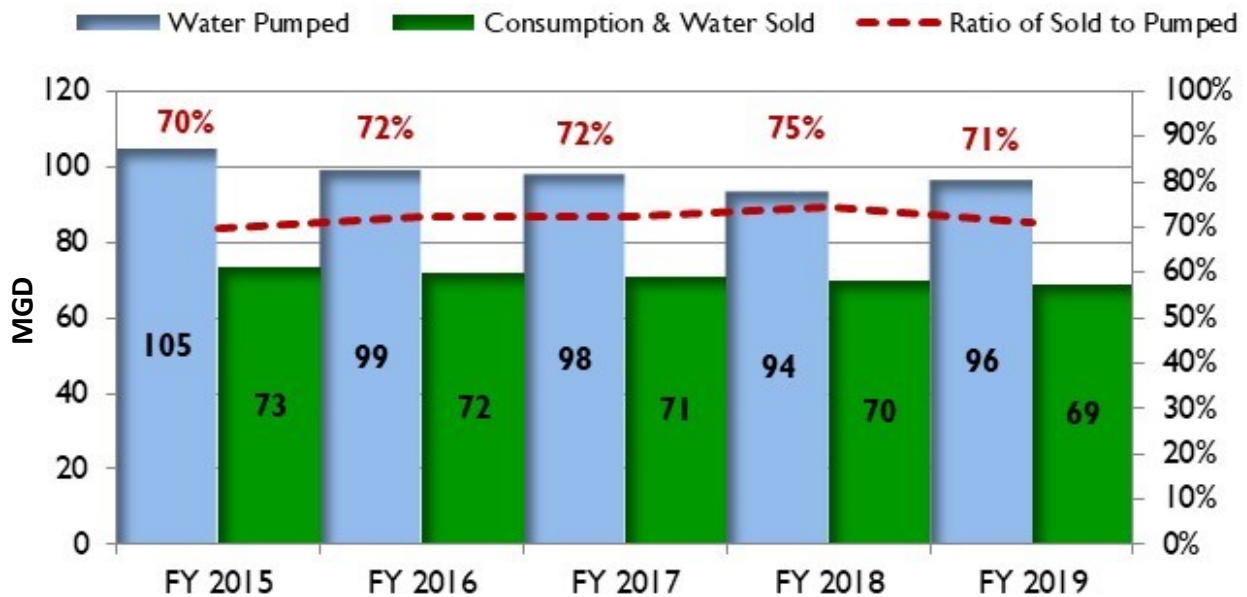
Historical Wastewater Treatment vs. Capacity FY 2015 –FY 2019



Water System Capacity Meets Service Area Needs

- Water is purchased from the Washington Aqueduct, owned and operated by the U.S. Army Corps of Engineers
- Four pumping stations provide 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
- System comprises 1,350 miles of interconnected pipes

Volume of Water Pumped versus Sold FY 2015 – FY 2019



Infrastructure Leakage Index (ILI):
 FY 2015 – 9.94
 FY 2016 – 7.84
 FY 2017 – 9.00
 FY 2018 – 9.84
 FY 2019 – 12.53

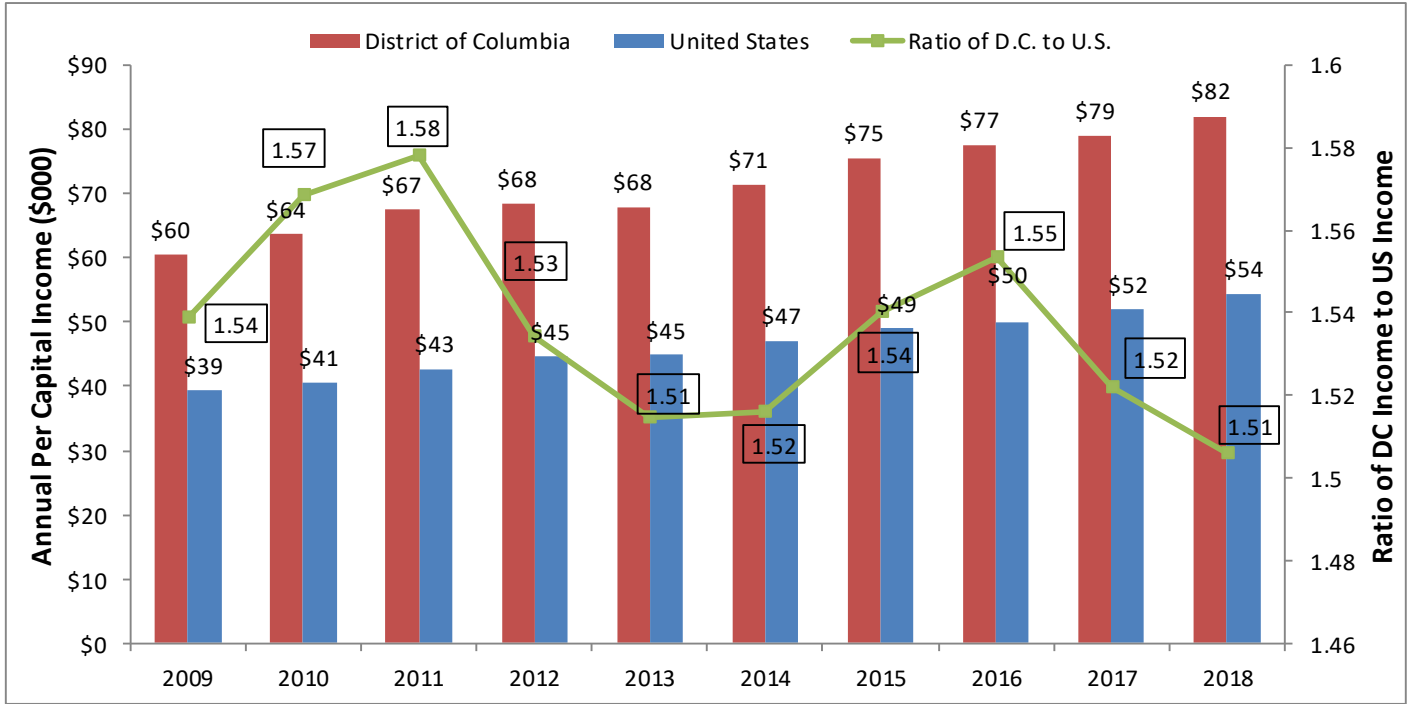
Strong financial planning requires careful monitoring and analysis of various trends and factors that may influence the market place. In this case, the market place for DC Water is the District of Columbia and its surrounding region. DC Water monitors consumption and wastewater flow trends within the 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 historically been resilient, even during fluctuations in nationwide economic conditions. Employment at the U.S. government and all of the professional and service industry firms that support the federal government have been a steadying force through various economic cycles.

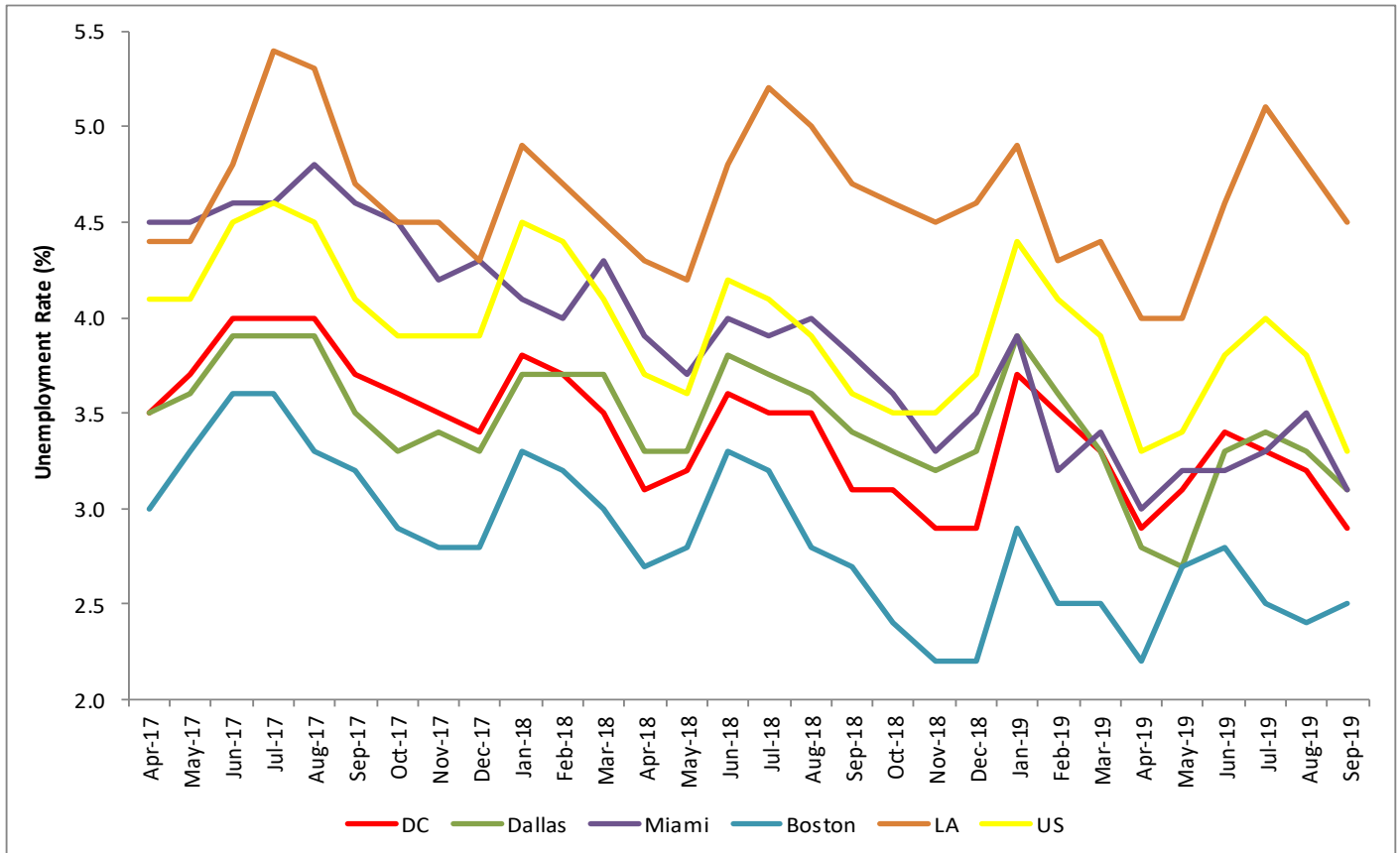
The effects of the recent decline in the federal workforce has been offset to some extent by growth in private sector employment as well as major redevelopment efforts such as Nationals Park and the adjoining area along the Anacostia River. The population of the District grew by over 100,000 people from 2009 to 2017. Per capita incomes within the District and for the region as a whole continue to be higher than the U.S. average. Regional office vacancy rates have increased somewhat in recent years while retail vacancy rates remain low. The strengths of the District are complimented by its highly rated partners: the federal government and wholesale wastewater users. Select demographic charts that follow support the overall positive outlook for the Washington Metropolitan region and its economy.

DC Per Capita Income is Higher than US Average



Source: Bureau of Labor Statistics

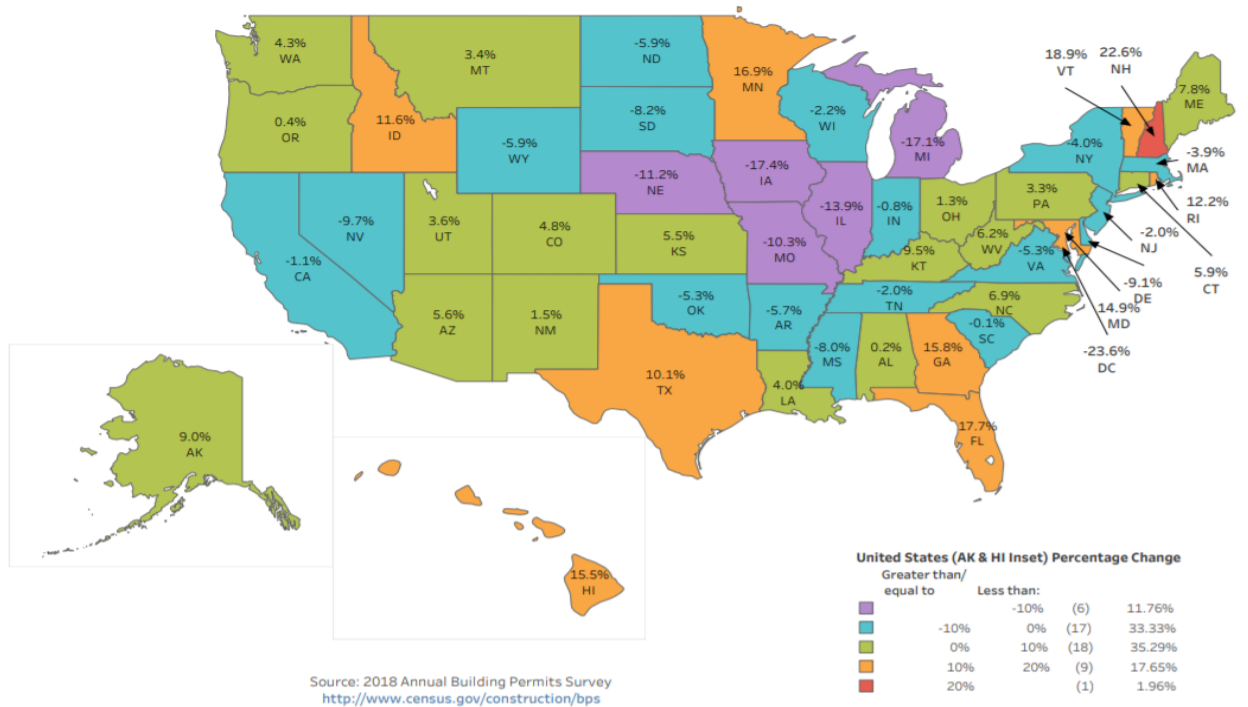
Unemployment Rate in the DC Region Remains Relatively Low



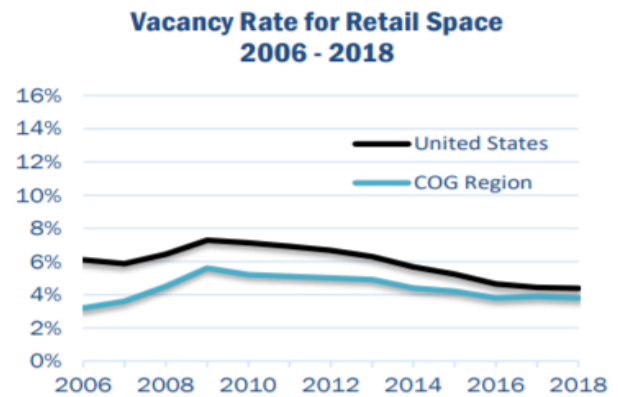
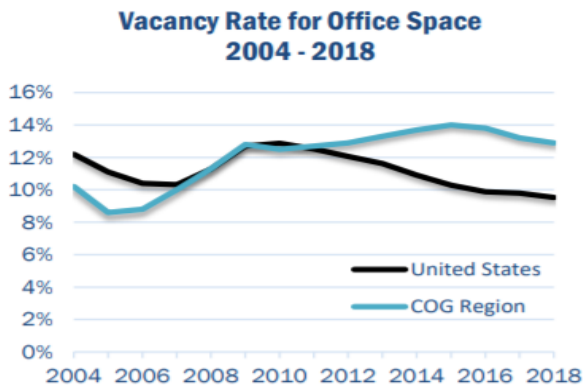
Source: Bureau of Labor Statistics

2017 – 2018 Significant Growth in New Housing Permit Issuance in DC

Percent Change from 2017-2018 of New Privately-Owned Housing Units Authorized by State



DC Metro Vacancy Rates are Above Pre-Recession Levels partly due to New Spaces Added to the Market



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

- Source: Metropolitan Washington Council of Governments (COG)
- Note: COG region includes the District of Columbia, Northern Virginia, and Suburban Maryland

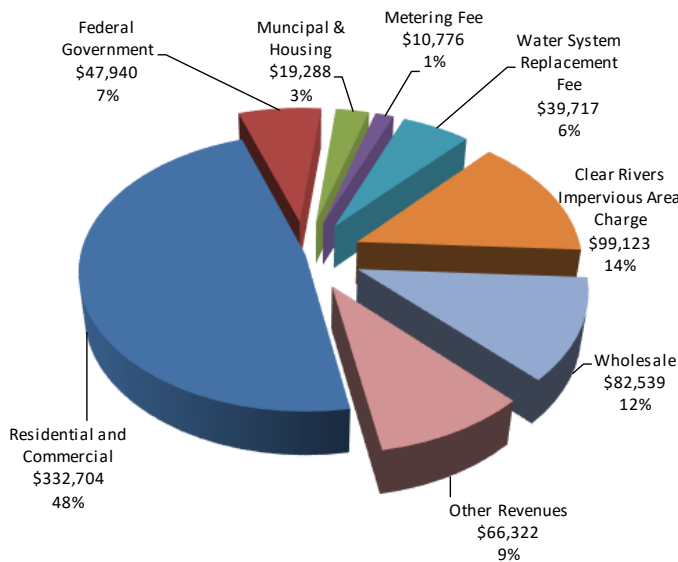
The regional indicators are positive with strong incomes and unemployment below the national level. These factors, coupled with stable consumption and the financial strength of the major AAA rated customers helps to ensure the financial success of DC Water.

The DC Water service area includes highly-rated customers

- About 21.6% of the projected FY 2020 revenues came from “AAA” rated entities and are received in advance of service:
 - Federal Government
 - Fairfax County
 - Washington Suburban Sanitary Commission
 - Loudoun County Sanitation Authority
 - District of Columbia

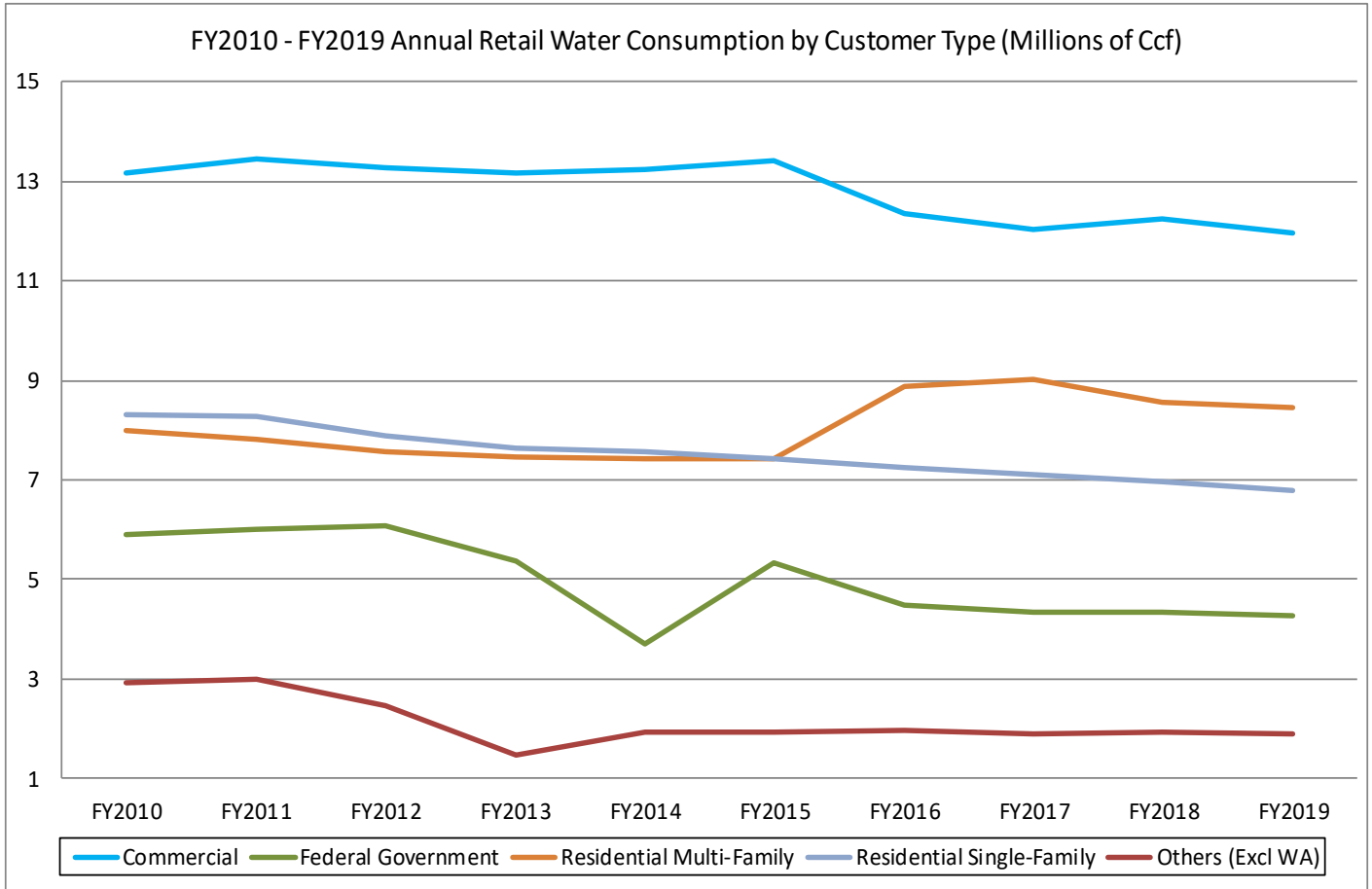
Media reports reference the service area’s economic strength

- "Washington, DC once again comes in first place in our ranking. The capital's Q2 2018 GDP per capita of \$202,726 and November 2018 average weekly wage of \$1,532 were both by far the highest in the country." Business Insider, Jan 17, 2019
- "Take a closer look at the U.S. cities experiencing the fastest-growing job growth pace ... Job openings grew at a 4.9 percent in Washington, D.C., with more than 190,500 available positions. Those jobs have a median income of \$61,956." Fox Business, September 3, 2019
- "The D.C. region's population keeps growing ... Overall, the D.C. metro area is the sixth-most populous region in the country." WTOP, April 18, 2019
- “[Amazon] will welcome the first 25,000 employees into its suburban D.C. campus next month, which explains why the local housing market is already experiencing a boom.” Observer, May 2019



Customer Demand: A reasonable degree of accuracy in forecasting water demand is important for sound financial planning and rate-setting. The FY 2010 - 2019 actual average decline in usage is 1.5% annually, excluding the Washington Aqueduct. FY 2010 – FY 2019 average annual rate of change in demand for the customer classes: Commercial -1.0%; Federal Government: -3.5%; Single Family: -2.2%; and Other (include Exempt, DC Housing Authority, DC Municipal Government, and DC Water): -4.7%. Multi-Family increased by 0.6% annually.

DC Water Consumption by Customer Type



Source: DC Water

- FY 2019 consumption decreased 1.8%, mostly due to decreases in consumption for Commercial, Single Family and Multi-Family accounts.
- DC Water has typically assumed an annual reduction in water demand of 1.0% in line with historic averages. The Financial Plan assumes an annual retail water consumption decline of 3% in 2019 and 1% thereafter. We believe that this estimate is prudent, consistent with peers such as New York and Boston and assures revenue sufficiency for the Authority.



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Clean Rivers Northeast Boundary Tunnel

The Blueprint

The Blueprint is DC Water's Strategic Plan Framework 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.



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. In August 2019, Fitch Ratings upgraded DC Water’s credit rating to AA+ for senior lien revenue bonds and the Authority maintained a AAA credit rating by S&P and an Aa1 by Moody’s. DC Water also maintained a GB1 rating for green bonds, Moody’s highest possible green bond assessment. 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 2019, DC Water met or exceeded the goals set by Board policy and the FY 2019 – FY 2028 ten-year plan. This budget includes DC Water’s twentieth comprehensive ten-year financial plan, covering FY 2020 – FY 2029.

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 2020 - FY 2029 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.

DC Water’s board policies include:

- **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 2019, the balance in the RSF was \$61.45 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 performed in 2013 and then in 2018.

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 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
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 provide 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

The current Investment Policy is available on-line at www.dewater.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 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 2019 DC Water met or exceeded the financial goals set out by the Board and the FY 2019 – FY 2028 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 2019 was at 463 percent**, while maintaining the Board's rate setting and financial policies. The senior debt service coverage is expected to increase to 769 percent by FY 2029 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 232 percent in FY 2019. DC Water is required to have 100 percent coverage of subordinate debt service. Combined debt service coverage was at 181 percent in FY 2019.
- DC Water has maintained its bond rating from Standard & Poor's (AAA), Moody's (Aa1), and Fitch (AA+). DC Water's Green bond was assessed at GB1.
- **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 expired on May 15, 2020. In May 2020, DC Water authorized the Letter of Credit facility to TD Bank, NA. Additionally, DC Water successfully extended JP Morgan Chase Bank as the authorized dealer and US Bank as the Issuing Paying Agent. The \$150 million commercial paper program includes: (1) Series B (tax-exempt) aggregate principal amount not to exceed \$100 million; and (2) Series C (taxable) aggregate principal amount not to exceed \$50 million.
- **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 utilized \$6.0 million from the rate stabilization fund (RSF) in FY 2019** for CAP2 program. DC Water contributed \$6.0 million at the end of FY 2019, which resulted in the Rate Stabilization Fund’s ending balance to remain same at \$61.45 million.
- **DC Water continued its strong operating budget performance in 2019** – For FY 2019, actual cash receipt was higher than the revised budget by \$28.8 million, or 4.3 percent. Actual operating expenditures were \$12.9 million, or 2.3 percent lower than budget. Underspensing in debt service was attributable to lower interest rates, refinancing and delayed issuances. Furthermore, due to favorable O&M position at 97.7 percent of budget, the Cash Financed Capital Improvements Fund was utilized for pay-go financing.
- **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-five 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 \$2.8 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 13.0 percent in FY 2019** to recover increased retail water and sewer revenue requirements of \$37.9 million. \$6.0 million from Rate Stabilization Fund (RSF) was utilized in FY 2019 for CAP2 program. 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 fee remains the same at \$0.18 per Ccf. 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. This is the third time that DC Water has adopted a multi-year rate proposal in FY 2020 covering the period FY 2021 and FY 2022 and will become effective from October 1, 2020 and October 1, 2021, respectively.

The benefits of multi-year rates include:

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

- In FY 2020, an Independent Review of Rate Structure and Customer Assistance Programs was conducted to review and benchmark DC Water’s rates, rate structure and Customer Assistance Programs (CAP) to peer utilities. The findings of the study concurred that DC Water’s current customer class structure, monthly water lifeline threshold of 4 Ccf, ERU basis for recovering the CRIAC charge, CAP bill discount and temporary assistance programs are consistent with industry standards for ratemaking.
- In FY 2020, DC Water conducted a Cost of Service Study (COS) to align the COS with the multi-year rate proposals, therefore both will be done every two years going forward. Previously, Cost of Service study was conducted every three years. The COS consist of three components: i) revenue sufficiency analysis – to ensure that the revenues cover the costs that DC Water incurs; ii) cost of service analysis/rate equity – to ensure that the rates are equitably recovering the costs of service provided to customers; and iii) alternative rate structure analysis – to ensure that DC Water meets its priority pricing objectives. The results of the COS support the multi-year rate, charges and fee proposals for FY 2021 and FY 2022.
- For the nineteenth-consecutive year, DC Water received the Government Finance Officers’ Award for Distinguished Budget Presentation for its FY 2020 budget, submitted in 2019. DC Water also received its twenty second unqualified audit opinion for the fiscal year ended September 30, 2018 and received the twenty second GFOA Certificate of Achievement for Excellence in Financial Reporting.
- In FY 2019, DC Water successfully renewed all of the Authority’s operations insurance policies at essentially the same terms up 9.2 percent from expiring costs than previous year. DC Water’s coverage is generally comparable to expiring.
- DC Water completed its fifteenth year of its rolling owner-controlled insurance program (ROCIP), eleventh year of ROCIP II, eighth year of ROCIP III and is actively managing 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 enrolled contractors and significant cost savings. At the end of FY 2019, 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 790 contractors were enrolled in the ROCIP III program and 37 projects and 440 contractors are/were enrolled in the ROCIP IV program. Verified avoided costs (aka savings) are in the range of \$5.4 million for ROCIP I; approximately \$11.2 million for ROCIP II, \$8.1 million for ROCIP III and \$5.8 million for ROCIP IV. ROCIP II and III were three-year insurance programs that support an estimated \$2.4 billion of planned and completed construction. A major reason for the cost savings is the implementation of a uniformly strong safety program for all contractors.
- Customer Assistance Programs (CAP) – In FY 2019, DC Water, Mayor Muriel Bowser and the DC Council worked together to expand the existing customer assistance program. The new benefits were earmarked for non-profits, including churches and cemeteries, along with a group of residential customers who did not previously meet the income guidelines for assistance. The FY 2019 customer benefits were as follows:

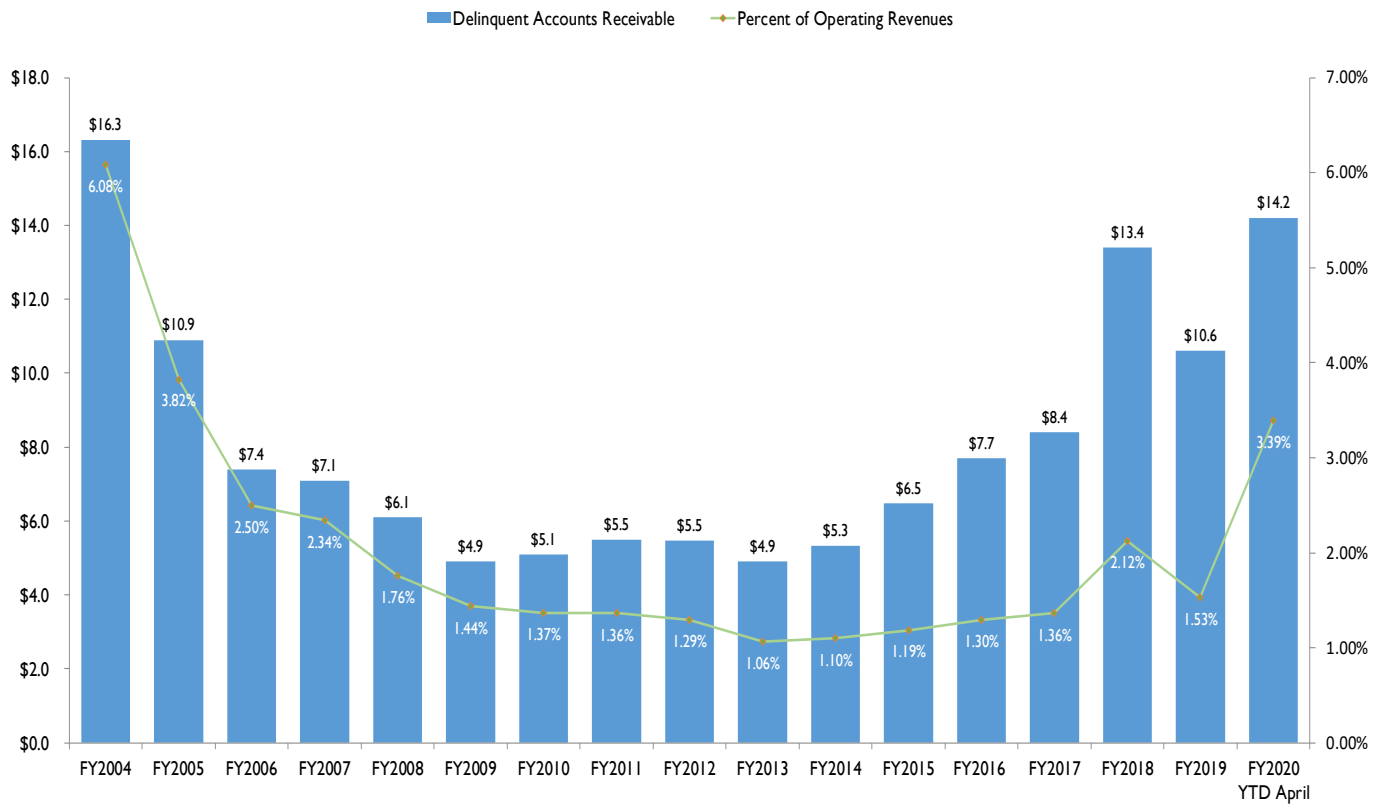
Program	Assistance	Assisted Customers
CRIAC Residential Relief Program		
CAP (Original)	\$1.29 million	4,436
CAP 2	\$47,490	191
CAP 3	\$9,436	48
CRIAC Non-Profit Relief Program		
Non-Profit Relief	\$1.36 million	175

The CAP and CAP2 discount programs administered by DOEE provided discount as of September 30, 2019 to 4,627 customers representing \$1,338,288.

- SPLASH – This program 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 2019, DC Water received \$84,427 in contributions and assisted 276 customers as of September 2019. CAP and SPLASH together provide \$1,422,715 per year in assistance to approximately 4,903 low income households to help make their bills more affordable.
- Defined as the Water Meter Rehabilitation Program, the first phase of the project from 2nd quarter FY 2017 to late FY 2019 completed 84,334 meter/MTU installations, which increased the overall AMI transmission rate to 90.1 percent. The program entered the second phase in October 2019. Through May 2020, approximately 5,500 meters were exchanged, increasing the overall AMI transmission rate to 93.8 percent. By the end of FY 2020, an additional 3,000 locations are anticipated to be changed.
- Increasing AMI transmission rates should reduce the number of estimated bills and provide better revenue projections by capturing accurate consumption.
- Benefits Observed:
 - New technology provides two-way communication to and from a device
 - New technology allows us to increase data points from the field from twice daily to hourly or 15-minute interval data
 - Increased data points set the foundation for improved technology advancements in consumption analysis, leak detection, and bill accuracy
 - Provides complete control over access to consumption data with on-demand reads virtually eliminating the need for truck rolls after installation
 - Assures the highest read success rate in the industry with redundant readings transmissions and collection paths

- Customer Information System (CIS) – In 2017, DC Water upgraded its system to a new Vertex One CIS
 - New functionality for managing customer relationships, not just locations
 - Improved customer relationship management
 - Advanced process automation capabilities
 - Improved customer self-service features
 - Enhanced security over personal and financial information
 - Robust customer communication/notifications related to changes to customer profiles
- New mobile work management application
- 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
- 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

Delinquent Accounts Receivable (\$ in Millions)



- The graph above represents Delinquent Accounts Receivable as percent of Total Operating Cash Receipts (includes Retail, Wholesale and Other)
- In FY 2018, there was an increase in delinquent accounts receivable, greater than 90 days, due to the implementation of DC Water’s new Customer Information System (CIS). During the implementation, DC Water did not disconnect delinquent accounts. Therefore, there was an increase in the number and dollar amount of delinquent accounts. However, due to increase in cut off and collection efforts the delinquency greater than 90-days improved from 2.12 percent in FY 2018 to 1.53 percent in FY 2019
- Delinquent accounts receivable decreased by \$2.7 million from FY 2018 to FY 2019 due to the following collections activities:
 - Automated outbound calls to remind customers to pay before balances become unmanageable
 - Continuous focus on the top 75 accounts with the largest balances by making manual outbound calls to negotiate payments and assess risk
 - Adhering to payment plan policies that balance managing arrears and keep a vital service on for customers
 - Service disconnection when an account balance exceeds \$200
 - Continuous placement of property liens when an account balance exceeds \$200 and is more than 60 days past due
 - Development of write-off procedure for inactive account balances

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 cost of service (COS) studies. The COS study prioritizes the following pricing objectives:

- Revenue sufficiency – Rates should recover revenue necessary to operate and maintain the utility in perpetuity
- Cost of Service Recovery – Rates should be supported by industry practice and ensure that customers pay their fair share
- Simplicity – Rates and charges should be easy for our customers to understand
- Affordability – DC Water should minimize customer bills while not sacrificing good, clean and safe service

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 percent 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 percent 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 FY 2018, a Cost of Service study was conducted by the Independent Financial Consultants which provided several recommendations:

- Every three years DC Water conducted Cost of Service Study for the Water and Sewer rates, and the Clean Rivers Impervious Area Charge (CRIAC) to update actual and projected expenditures to ensure that these charges are appropriately recovering costs
- DC Water has taken several actions over the last several years to lower CRIAC costs including Century Bonds, refinancing older debt for savings, and restructuring debt so the relief is provided to today’s customers. These savings are now reflected in the projected charges
- A reallocation of the costs associated with the Clean Rivers Impervious Area Charge (CRIAC) to the Sewer utility results in a reduction in the CRIAC and an increase in the Sewer volumetric charge
- The revenue collected from the Water System Replacement Fee, originally designed to fund the annual costs of 1 percent of DC Water’s water service line renewal and replacement program has been used in its entirety to offset the Water utility’s revenue requirements, resulting in a decrease to all Water volumetric charges
- Although these two reallocations cause shifts in the cost structure, and subsequent rates, DC Water customers will see only minimal changes to their bills

In FY 2020, an Independent Review of Rate Structure and Customer Assistance Programs was conducted to review and benchmark DC Water’s rates, rate structure and Customer Assistance Programs (CAP) to peer utilities. The findings of the study concurred that DC Water’s current customer class structure, monthly water lifeline threshold of 4 Ccf, ERU basis for recovering the CRIAC charge, CAP bill discount and temporary assistance programs are consistent with industry standards for ratemaking.

In FY 2020, DC Water conducted a Cost of Service Study (COS) to align the COS with the multi-year rate proposals, therefore both will be done every two years going forward. Previously, the Cost of Service study was conducted every three years. The COS consist of three components: i) revenue sufficiency analysis – to ensure that the revenues cover the costs that DC Water incurs; ii) cost of service analysis/rate equity – to ensure that the rates are equitably recovering the costs of service provided to customers; and iii) alternative rate structure analysis – to ensure that DC Water meets its priority pricing objectives. The results of the COS support the multi-year rate, charges and fee proposals for FY 2021 and FY 2022.

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 percent 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 2019 through 2028. 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.

Effective October 1, 2017, (FY 2018), DC Water amended the Water System Replacement Fee (WSRF) regulations to add rules and procedures for a Multi-family WSRF adjustment; amend the Customer Classifications to clarify the definitions for Residential, Multi-family and Non-Residential customers to include cooperative housing associations and other clarifications; and amend the definitions set forth in Chapter 41 to define the terms Condominium, Cooperative Housing Association, and Dwelling Unit used in the Customer Classification regulations.

The following terms are defined:

Condominium – means real estate, portions of which are designated for separate ownership and the remainder of which is designated for common ownership solely by the owners of the portions designated for separate ownership, provided the undivided interests in the common elements are vested in the unit owners.

Cooperative Housing Association – means an association, whether incorporated or unincorporated, organized for the purpose of owning and operating residential real property, the shareholders or members of which, by reason of their ownership of a stock or membership certificate, a proprietary lease or other evidence of membership, are entitled to occupy a dwelling unit pursuant to the terms of a proprietary lease or occupancy agreement.

Dwelling Unit – any habitable room or group of rooms with kitchen and bathroom facilities forming a single unit located within a building or structure, which is wholly or partially used or intended to be used for living, sleeping and the preparation and consumption of meals by human occupants, and is under the control of and for the use of the occupant.

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.

In FY 2018, DC Water has determined that implementing the System Availability Fee (SAF) regulations on the effective date of January 1, 2018 could present significant fiscal impacts to the District’s New Communities Initiative, which includes redevelopment, one for one replacement and/or augmentation, of affordable housing units. On March 1, 2018, the DC Water Board considered comments received during the SAF public comment period and agreed to; 1) Extend the System Availability Fee (SAF) effective date from January 1, 2018 to June 1, 2018 for DCRA Construction Permit Applicants and federal facilities 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 fee schedule and requirements; 2) Revised the DC Water guidance document used to determine the SAF meter size from DC Water Standard Details and Guideline Masters to DC Water’s Sizing Instructions and Worksheets; 3) Added procedures and requirements to receive credits for Affordable Housing Units (AHU) development and redevelopment; 4) Clarified the requirements for projects submitted prior to the effective date of June 1, 2018 and approved by June 1, 2019; 5) Added formulas to clarify how the SAF is calculated with the SAF credit, AHU credit and Net AHU credit; 6) Clarified requirements for Payment Plan Agreement; 7) Properties under redevelopment shall not receive a credit for accounts that are inactive for more than 24 months.

Effective June 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.

- In 2018, 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. The consultants reviewed and tabulated historical fire service costs of DC Water (FY 2013 - 2017). Projections of DC Water costs were developed for FY 2018 – FY 2021. As per terms of the 2013 MOU and based on the results of the 2018 COS, Fire Protection Service fee was established at \$12.527 million for fiscal years FY 2019, FY 2020 and FY 2021. This fee is \$1.7 million higher than the FY 2015 fee of \$10.8 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. In 2018, Independent Financial Consultants conducted the study and recommended to revise the current reserve policy (120 days of operating and maintenance expenses or \$125.5 million, the bond indenture requires 60 days of operating expenses) to the higher of \$140.0 million or 140 days of operating and maintenance expense. The next Operating Reserves study will be conducted in FY 2022.
- The Independent Financial Consultants noted that the wholesale customers have not contributed to the reserves and that DC Water may consider having wholesale customers provide a proportionate share of the contributions required for the R&R Reserve Fund.
- 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. In FY 2018 study, the Independent Financial Consultants recommended to maintain R&R Reserve Fund at \$35.0 million. The recommendation will be presented to the DC Water Board for approval. The next R&R Reserve Fund study will be conducted in FY 2022.

- Over the last ten years, DC Water has made contributions to the RSF and made withdrawals to help mitigate rate increases. In FY 2018, the Independent Financial Consultant performed a cost of service (COS) study to determine the appropriate level of Rate Stabilization Fund (RSF) to help mitigate rate increases. The study recommended that the Authority maintain current RSF policy of allowing management discretion on deposits and withdraws; consider adding to the RSF in future years from year-end operation balances to support one or more Board objectives.
- With respect to Operating Reserves, Renewal and Replacement (R&R) Reserve Fund Study and Rate Stabilization Fund (RSF), the Independent Financial Consultants also recommended the following:
 - DC Water’s Operating Reserves, Rate Stabilization (RSF) and R&R Reserve Fund requirement be reassessed at least every five years in conjunction with the Indenture-required system assessment (or sooner in event of changes in the underlying factors, assumptions, or market conditions).
 - 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.



Future Goals and Financial Assumptions

All Legal Covenants, Financial Board Policies, Accomplishments and Targets are Incorporated into the Ten-Year Financial Plan

Compliant	Description	Legal covenant	Performance Target	FY 2019 Actual	FY 2020 Revised	FY 2021 Approved	FY 2022 Approved
<input checked="" type="checkbox"/>	Senior Debt Service Coverage	120%	140%	463%	459%	502%	533%
<input checked="" type="checkbox"/>	Operating Cash Reserves	N/A	\$125.5 million	186.8 million	\$180 million	\$185 million	194 million
<input checked="" type="checkbox"/>	Short Term Investment Return Benchmark Merrill Lynch 3-Month Treasury Index	N/A	25 basis points	226 basis points	78 basis points	18 basis points	150 basis points
<input checked="" type="checkbox"/>	Long Term Investment Return Benchmark Merrill Lynch 1-3 Year Treasury Index	N/A	50 basis points	225 basis points	79 basis points	27 basis points	167 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	\$6. million utilization from and \$6. million contribution to the RSF, leaving a balance of \$61.45 million.	Projected at \$74.45 million at the end of FY 2020	Projected at \$71.95 million at the end of FY 2021	Projected at \$61.45 million at the end of FY 2022

The Approved FY 2020 - FY 2029 financial plan includes the resources necessary to accomplish critical financial and operational goals over the coming years, as summarized below.

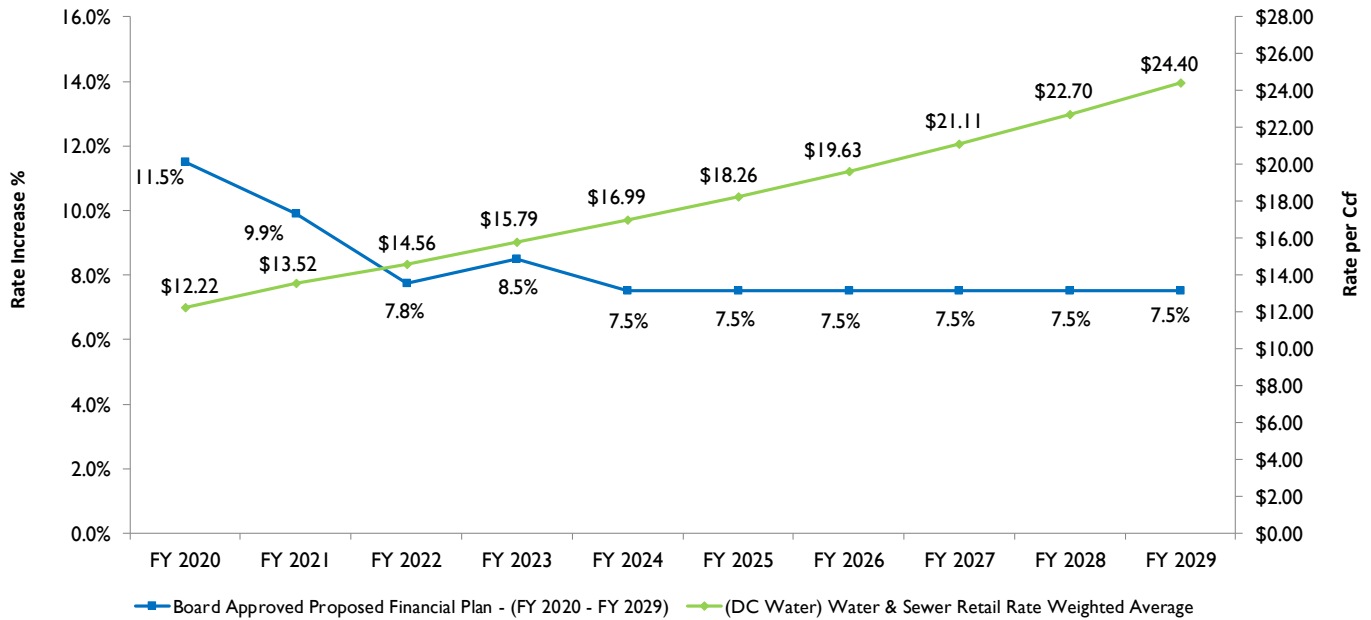
- Continue adherence to the Board's financial, investment, rate-setting and long-term planning policies
- Continue implementation of the ten-year \$5.45 billion capital improvement program
- Includes disbursements of \$1.2 billion over the ten-year planning period for Clean Rivers Project (CSO Long-Term 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
- 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 3.3 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 2020 will be at \$17.01 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
- Days of cash on hand which is an important measure of short and long term liquidity typically exceeds 250 days of cash including the Rate Stabilization Fund
- Management’s practice is to target combined coverage at 1.6X. The combined coverage for FY 2021 to FY 2029 range from 1.72 to 1.87. DC Water Indenture requires Senior Lien coverage of 1.2X and Subordinate at 1.0X, Board Policy is 1.4X for Senior and 1.0X for Subordinate
- Debt Service:
 - Overall increase of Debt Service is to support the capital program. The Debt Service as a percent of operating revenues does not exceed 33 percent in the Financial Plan. Debt Service represents 30.5 percent and 32.0 percent of the total operating revenue in FY 2021 and FY 2022, respectively
 - Interest on Variable debt assumed to be 2.5 percent in FY 2020 and FY 2021
 - Interest on Fixed debt assumed to be 5.5 percent in FY 2020 and 5.0 percent in FY 2021
 - Utilization of the Commercial Paper program/Extendable Municipal Commercial Paper (EMCP) is assumed for interim financing for bond issuance, capital equipment and Washington Aqueduct

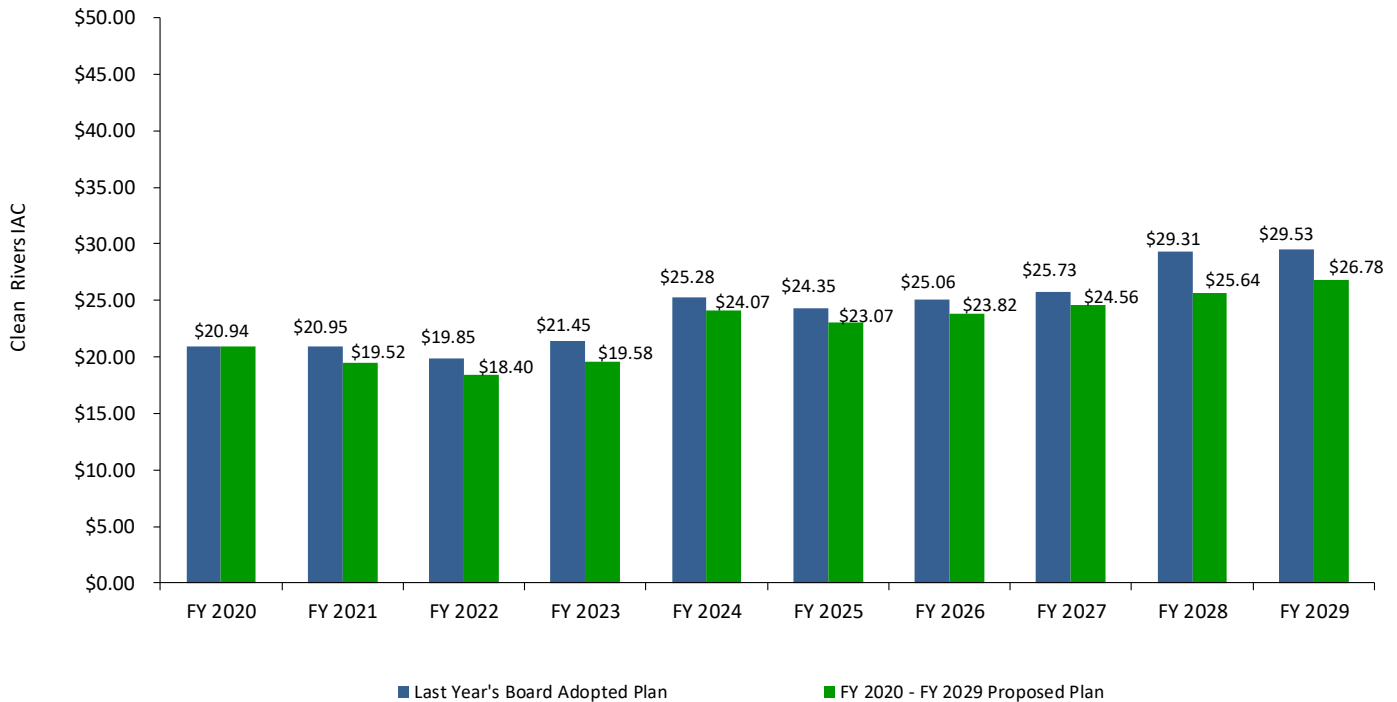
Due to these ongoing and new initiatives, from FY 2020 – FY 2029 DC Water’s water and sewer volumetric retail rates are projected to increase by \$1.04 to \$1.70 per 100 cubic feet as shown in the chart below. Cumulative rate increases would total 82.7 percent over the ten-year period compared to 86.0 percent projected in last year’s ten-year plan (FY 2019 – FY 2028).

**Projected Retail Rate Increases
FY 2020—FY 2029**



Rates shown above reflect weighted water and sewer rates for Residential customers’ category. The proposed retail water and sewer combined rate for FY 2021 is \$13.52 per Ccf and \$14.56 per Ccf for FY 2022. In addition, the proposed increase in the combined Right-of-Way and PILOT Fees is \$0.03 per Ccf, {\$0.04 per 1,000 gallons}, in FY 2021 and is \$0.02 per Ccf, {\$0.03 per 1,000 gallons} in FY 2022 to recover the full amount for services charged to DC Water by the District. There is no increase in Right-of-Way Fee for FY 2021 and FY 2022, which remains same at \$0.19 per Ccf (\$0.25 per 1,000 gallons). The proposed monthly Clean Rivers Project CRIAC charges for FY 2021 and FY 2022 are \$19.52 and \$18.40 respectively per ERU (Equivalent Residential Unit); decrease of \$1.42 compared to the FY 2020 charge and decrease of \$1.12 compared to the FY 2021 charge respectively

Projected Monthly Clean Rivers Impervious Surface Area Charge (CRIAC) Changes FY 2020 – FY 2029



- The projected charges displayed in the chart above are primarily driven by anticipated debt service costs necessary to support the twenty-five year \$2.8 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 \$20.94 per month in FY 2020 to \$26.78 per month in FY 2029
- The proposed CRIAC shift to sewer volumetric with 18 percent in FY 2020, 28 percent in FY 2021 and 37 percent in FY 2022 and beyond is recommended because it balances infrastructure investment with growth in rates. The shift is based on an assessment that on average 37 percent of volume in the tunnels is from wastewater. With the proposed shift the overall household charges increase is 6.6 percent for FY 2021. The gradual shift helps avoid rate shock to customers. The CRIAC for is projected to decrease from \$20.94 to \$19.52 per ERU, per month for FY 2021 and to \$18.40 per ERU per month for FY 2022.

The proposed rate and fee adjustments included in the FY 2020 – FY 2029 financial plan are driven by the following trends and initiatives:

- Assumed retail water consumption decline of 1.5 percent in FY 2020 over FY 2019 Actual, conservation of 1.5 percent in FY 2021 and 1 percent in FY 2022 and onwards.
- Increasing debt service expenditures, driven by DC Water’s \$5.45 billion capital improvement program (cash disbursements basis), which increases on average by 6.1 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 3.3 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. In FY 2004, the Authority expanded the CAP to include tenants who meet financial eligibility requirements and whose primary residence is separately metered by the Authority. 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.

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.

As of May 1, 2017, the Authority further expanded the CAP to include 50 percent discount for CRIAC.

In FY 2019, DC Water, Mayor Muriel Bowser and the DC Council worked together to expand the existing customer assistance program. The new benefits were earmarked for non-profits, including churches and cemeteries, along with a group of residential customers who did not previously meet the income guidelines for assistance (CAP2 and CAP3).

For FY 2019, \$1,290,797 in discount benefits was provided to 4,436 CAP customers and 191 CAP2 customers received discount of \$9,436. The CAP and CAP2 discount programs administered by DOEE provided discount as of September 30, 2019 to 4,627 customers representing \$1,338,288. DC Water’s SPLASH program customers donated an additional \$84,427 through their water bills for the benefit of those customers who needed additional help.



Future Goals and Financial Assumptions

For 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. Eligibility determinations are made by the District Department of Energy and Environment. Customers who manage stormwater on their property through the use of approved best management practices such as rain gardens, rain barrels, pervious paving, green roofs, bio retention practices and stormwater will avail this discount. This budget proposes an increase from 4 percent to 20 percent for stormwater best management practices.



Revenues

\$ in thousands

The Proposed FY 2021 operating receipts projection totals \$733.7 million, an increase of \$34.8 million above the FY 2020 Revised budget. The Proposed FY 2022 operating receipts total \$766.3 million, an increase of \$32.6 million over the Proposed FY 2021 receipts.

Comparative Operating Receipts FY 2020 – FY 2022

	FY 2020 Approved	FY 2021 Proposed	Increase/ (Decrease)	Percent Change	FY 2022 Proposed	Increase/ (Decrease)	Percent Change
Residential	\$ 124,353	\$ 130,803	\$ 6,450	5.2%	\$ 137,229	\$ 6,426	4.9%
Commercial	173,826	180,589	6,763	3.9%	191,375	10,786	6.0%
Multi-family	100,884	110,241	9,357	9.3%	116,768	6,527	5.9%
Sub-Total Residential, Commercial and Multi-family	399,063	421,633	22,570	5.7%	445,372	23,739	5.6%
Federal Government(1)	71,887	77,571	5,684	7.9%	67,220	(10,352)	-13.3%
District Government	17,585	18,377	792	4.5%	18,668	291	1.6%
D.C. Housing Authority	10,524	11,941	1,417	13.5%	12,592	651	5.5%
Transfer from Rate Stabilization Fund	-	2,500	2,500	0.0%	10,500	8,000	320.0%
Water System Replacement Fee (WSRF)	39,717	39,717	-	0.0%	39,717	-	0.0%
Metering Fee	10,776	15,405	4,628	43.0%	24,083	8,678	56.3%
Total Retail	549,553	587,144	37,591	6.8%	618,152	31,008	5.3%
IMA Wastewater Charges	72,066	70,791	(1,275)	-1.8%	72,915	2,124	3.0%
Potomac Interceptor Wastewater Charges	10,473	11,194	721	6.9%	11,530	335	3.0%
Total Wholesale	82,539	81,986	(554)	-0.7%	84,445	2,459	3.0%
District Stormwater Revenue (2)	1,000	1,000	-	-	1,000	-	0.0%
Misc. Rev. (e.g. water tap installation, fire hydrant usage, etc.)	33,840	29,824	(4,016)	-11.9%	28,238	(1,586)	-5.3%
Washington Aqueduct Debt Service Revenue for Falls Church & Arlington	193	193	-	-	193	-	0.0%
Interest Income (including interest on Bond Debt Service Reserve Fund)	3,966	3,428	(537)	48.5%	3,726	298	8.7%
System Availability Fee (SAF)	5,775	7,700	1,925	33.3%	7,700	-	0.0%
Transfer from DC PILOT/ROW Fund	-	-	-	0.0%	-	-	0.0%
DC Contribution of 50% PILOT Fund to DCW	-	-	-	0.0%	-	-	0.0%
Right of Way	5,100	5,100	-	0.0%	5,100	-	0.0%
PILOT Fee	17,013	17,363	350	2.1%	17,744	381	2.2%
Total Other	66,887	64,608	(2,278)	-3.4%	63,701	(907)	-1.4%
Total Operating Cash Receipts	\$ 698,979	\$ 733,738	\$ 34,759	5.0%	\$ 766,298	\$ 32,560	4.4%

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.
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.

Major assumptions underlying the revenue projections contained in the FY 2020 – FY 2029 financial plan include:

- FY 2022, 1.5 percent reduction in water sales is assumed over FY 2021 projection for all customer categories, based on historical trends in consumption levels. For FY 2023 and onwards, 1.0 percent conservation is assumed for all categories.
- 3.0 percent average revenue increase between FY 2022 and FY 2029 for wholesale customers, in line with operating and maintenance expense increases for joint use facilities. In FY 2021, however, the wholesale revenues are projected to decrease by \$0.6 million or -0.7 percent due to lower projected flows for FY 2021.
- Based on the current interest rate environment, interest projections are conservatively assumed at 2.0 percent earnings rate in FY 2021 and 3.0 percent in FY 2022 and 4.0 percent in FY 2023. Interest rates for FY 2023 and onwards are assumed at 3.0 percent.
- The majority of other non-operating revenues, totaling \$38.7 million in FY 2021 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 - \$5.1 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 \$12.5 million.
 - Other miscellaneous fees and charges, including service line replacements, developer-related fees, and the Engineering Review, wastehauler fees and System Availability Fee (SAF) - \$19.9 million.

The Proposed FY 2021 receipts projection totals \$733.7 million, approximately \$34.8 million, or 5.0 percent higher than the Revised FY 2020 projections. The increase is due primarily to:

- **Residential, Commercial and Multi-Family** - FY 2021 projections reflect an increase of \$22.6 million, or 5.7 percent from FY 2020 Revised due primarily to proposed retail rate increase of 9.9 percent (water and sewer volumetric rates) and decrease of \$1.42 monthly ERU fee for the Clean Rivers IAC (see Section IV – Rates and Revenues for details on all rate and fee proposals) One and a half percent decrease in consumption has been assumed due to conservation in FY 2021.
- **Federal revenues** - Proposed FY 2021 federal revenues are projected to increase by \$5.7 million or 7.9 percent over Revised FY 2020 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 2021 billing was prepared in April 2019, 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 2019 estimated vs. actual consumption and rate increases will be included in the FY 2022 billing, prepared in April 2020). 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 2021 federal revenues reflect the final billing sent to the federal government in April 2019 net of the adjustment for the prior-year (FY 2018) reconciliation.
- **Municipal & D.C. Housing Authority Receipts** - are projected to increase by \$2.2 million (or 7.9 percent) mainly due to proposed rate increase of 9.9 percent and decrease of \$1.42 monthly ERU fee for the Clean Rivers IAC.
- **Rate Stabilization Fund Utilization** – The ten-year plan and near-term revenue projections assume utilization of \$2.5 million of RSF in FY 2021. There will be a balance of \$61.45 million by the end of FY 2029. 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.
- **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 \$4.96 for a 5/8-inch meter (typical size of a residential customer meter) to \$449.04 for 16” meters (typically used for large commercial customers). Based on the FY 2020 Cost of Service study, the Customer Metering fees due to proposed increase is projected to generate \$15.4 million in FY 2021.

- **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 2021 wholesale revenues are projected to decrease by \$0.5 million or 0.7 percent to \$82.0 million due to lower projected flows for FY 2021.
- **Stormwater** - DC Water’s FY 2020 and FY 2021 receipts include \$1.0 million each year from the Department of Energy and Environment (DOEE) 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 2020 – FY 2029 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 DC Water funds will be advanced to pay for these activities.
- **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. PILOT fee increase by 2 percent over prior year as per PILOT MOU signed with the District Government on September 4, 2014. In FY 2021 Proposed budget as compared to FY 2020 Revised budget, PILOT is projected to increase by \$0.35 million or 2.1 percent. ROW fee remains same at \$5.1 million.

The Proposed FY 2022 receipts projection totals \$766.3 million, approximately \$32.6 million, or 4.4 percent higher than the Proposed FY 2021 projections. This increase is due primarily to:

- **Residential, Commercial & Multi-Family** - FY 2022 projections reflect an increase of \$23.76 million, or 5.6 percent from FY 2021 Proposed due primarily to proposed retail rate increases of 7.8 percent (water and sewer volumetric rates) and decrease of \$1.12 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 over FY 2021 projections has been assumed due to conservation in FY 2022
- **Federal Revenues** - Proposed FY 2022 federal revenues are projected to decrease by \$10.4 million or 13.3 percent below the proposed FY 2021 budget to \$67.2 million.
- **Municipal & D.C. Housing Authority Receipts** - are projected to increase by \$0.9 million (or 3.1 percent), mainly due to proposed retail rate increases of 7.8 percent and decrease of \$1.12 monthly ERU fee for the Clean Rivers IAC
- **The Rate Stabilization Fund** - The ten-year plan and near-term revenue projections assume utilization of \$10.5 million of RSF in FY 2022. There will be a balance of \$61.45 million by the end of FY 2029.
- **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 \$7.75 for a 5/8 inch meter (typical size of a residential customer meter) to \$701.62 for 16” meters (typically used for large commercial customers). Based on the FY 2020 Cost of Service study, the Customer Metering fees due to proposed increase is projected to generate \$24.1 million in FY 2022.
- **Wholesale Receipts** - In FY 2022, Wholesale revenues are projected to increase by \$2.5 million or 3.0 percent to \$84.4 million due to projected 3.0 percent increase in operations and maintenance expenses.
- **Stormwater** - As noted earlier, the proposed FY 2022 receipts for this category include \$1.0 million each year from the Department of Energy and Environment (DOEE).
- FY 2022 **PILOT Fee** increase by 2 percent over prior year as per the PILOT MOU signed with the District Government on September 4, 2014.

(\$ in thousands)

DC Water FY 2020 – FY 2029 Financial Plan

OPERATING	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Retail*	\$ 571,666	\$ 607,107	\$ 630,495	\$ 669,848	\$ 723,657	\$ 752,224	\$ 791,988	\$ 833,503	\$ 879,616	\$ 928,122
Wholesale*	82,539	81,986	84,445	86,978	89,568	92,275	95,044	97,895	100,832	103,857
Other	44,774	42,145	40,858	44,081	46,959	51,637	54,692	54,970	56,935	57,752
RSF	-	2,500	10,500	-	-	-	-	-	-	-
Operating Receipts ⁽¹⁾	\$ 698,979	\$ 733,738	\$ 766,298	\$ 800,907	\$ 860,204	\$ 896,136	\$ 941,724	\$ 986,368	\$ 1,037,383	\$ 1,089,731
Operating Expenses	(347,881)	(365,658)	(376,303)	(387,553)	(399,149)	(411,101)	(423,421)	(436,120)	(449,209)	(462,701)
Debt Service	(205,137)	(222,268)	(240,497)	(257,460)	(271,238)	(286,756)	(299,489)	(315,321)	(332,807)	(348,316)
Cash Financed Capital Improvement	\$ (28,556)	\$ (30,355)	\$ (37,830)	\$ (46,889)	\$ (50,656)	\$ (60,178)	\$ (71,279)	\$ (75,015)	\$ (79,165)	\$ (83,531)
Net Revenues After Debt Service	\$ 117,405	\$ 115,456	\$ 111,668	\$ 109,005	\$ 139,161	\$ 138,101	\$ 147,535	\$ 159,912	\$ 176,202	\$ 195,183
Operating Reserve-Beg Balance	186,764	180,000	185,000	194,000	201,000	205,000	215,000	220,000	230,000	240,000
Other Misc (Disbursements)/Receipts	(5,372)	(3,184)	(5,490)	-	-	-	-	-	-	-
Wholesale/Federal True Up	(4,000)	(4,000)	-	-	-	-	-	-	-	-
Project Billing Refunds	(13,000)	-	-	-	-	-	-	-	-	-
Transfers To RSF	(101,797)	(103,272)	(97,178)	(102,005)	(135,161)	(128,101)	(142,535)	(149,912)	(166,202)	(185,183)
Pay-Go Financing	-	-	-	-	-	-	-	-	-	-
Operating Reserve - Ending Balance	\$ 180,000	\$ 185,000	\$ 194,000	\$ 201,000	\$ 205,000	\$ 215,000	\$ 220,000	\$ 230,000	\$ 240,000	\$ 250,000
Rate Stabilization Fund Balance RSF ⁽²⁾	\$ (74,450)	\$ (71,950)	\$ (61,450)	\$ (61,450)	\$ (61,450)	\$ (61,450)	\$ (61,450)	\$ (61,450)	\$ (61,450)	\$ (61,450)
Senior Debt Service Coverage	459%	502%	533%	513%	616%	647%	632%	618%	660%	769%
Combined Debt Service Coverage	171%	172%	169%	170%	179%	177%	181%	182%	184%	187%
Actual/Projected Water/Sewer Rate Increases	11.5%	9.9%	7.8%	8.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
*Operating Receipts \$ Increase/Decrease										
Retail	7,460	35,441	23,388	39,353	53,809	28,567	39,764	41,514	46,113	48,507
Wholesale	423	(554)	2,460	2,533	2,609	2,688	2,768	2,851	2,937	3,025
*Operating Receipts % Increase/Decrease										
Retail	1.3%	6.2%	3.9%	6.2%	8.0%	3.9%	5.3%	5.2%	5.5%	5.5%
Wholesale	0.5%	-0.7%	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 2021 planned transfers of \$0.0 million to Rate Stabilization Fund and \$2.5 million utilization will bring the total fund balance to \$71.95 million



Operating Expenditures

\$ in thousands

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 \$5.45 billion capital improvement program, growing at an average annual rate of 6.1 percent. All other operating expenses are projected to grow at an average annual rate of 3.3 percent. The following chart provides detailed comparison of the FY 2020 and FY 2021 operating budgets.

Comparative Operating Budgets FY 2020 – FY 2021

	FY 2020 APPROVED	FY 2021 APPROVED	Increase (Decrease)	Percentage Change
Personnel Services	\$170,680	\$177,863	\$7,183	4.2%
Contractual Services	81,886	88,532	6,646	8.1%
Water Purchases	34,929	36,250	1,321	3.8%
Chemicals and Supplies	33,158	36,081	2,923	8.8%
Utilities	26,953	27,911	958	3.6%
Small Equipment	989	1,030	41	4.1%
Subtotal Operations & Maintenance	\$348,594	\$367,668	\$19,074	5.5%
Debt Service	215,340	222,268	6,928	3.2%
Cash Financed Capital Improvements	28,556	30,355	1,799	6.3%
Payment in Lieu of Taxes	16,934	17,272	338	2.0%
Right of Way Fees	5,100	5,100	-	0.0%
Subtotal Debt Service, CFCI & PILOT/ROW	265,930	274,995	9,065	3.4%
Total Operating Expenditures	\$614,523	\$642,663	\$28,140	4.6%
Personnel Services charged to Capital Projects	(22,748)	(24,382)	(1,634)	7.2%
Total Net Operating Expenditures	\$591,775	\$618,281	\$26,506	4.5%

The approved FY 2021 budget total of \$642.7 million is approximately 4.6 percent higher than the approved FY 2020 budget. The net increase is primarily due to increase in debt service costs associated with DC Water’s capital improvement program, as well as increase in the operations and maintenance budget. The FY 2021 operations and maintenance budget net increase of 5.5 percent is primarily due to increase in personnel services, various maintenance and professional services, escalating unit price for major chemicals, and utilities. 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 \$7.2 million or 4.2 percent above the approved FY 2020 budget. The increase is primarily attributable to salary adjustments, combined with 5 additional positions for the DC Water Consumer Protection Amendment Act of 2018, higher overtime, and increase in health insurance premiums.

Utilities – increase of approximately \$1.0 million or 3.6 percent above the approved FY 2020 budget is due to electricity budget increase of \$0.8 million resulting from increase in flows from the Wet Weather Facility and Filtrate Treatment Facility (FTF) activities that became fully operational in 2019. DC Water’s thermal hydrolysis process and anaerobic digesters continues to generate approximately 6MW electricity to offset the Authority-wide energy consumption of 33MW. Additional reduction of \$0.2 million resulted from changes/upgrade to telephone services.

Chemicals – increase of \$2.6 million or 10.3 percent above the approved FY 2020 budget is due to escalating unit prices for major chemicals (methanol, ferric chloride and sodium bisulfite) and high chemical usage from increased effluent from the Tunnel Dewatering Pump Station during rain events.

Water Purchase – increase of approximately \$1.3 million or 3.8 percent above the approved FY 2020 budget. This represents DC Water’s share of the Washington Aqueduct’s FY 2021 O&M budget.

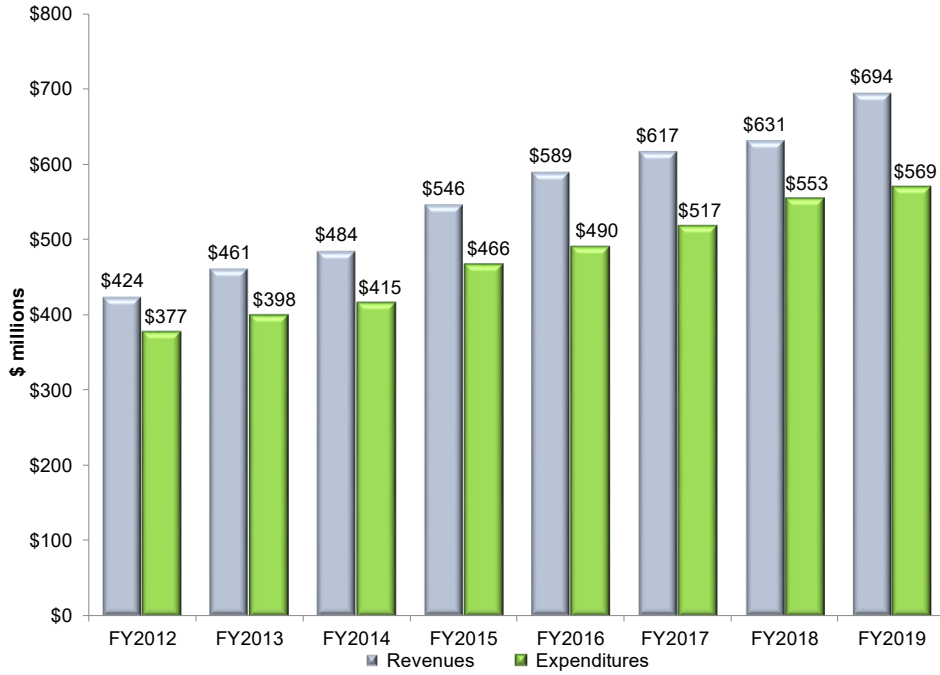
Biosolids Hauling – slightly lower compared to FY 2020 budget, due to continued increased marketing efforts of BLOOM, and the materialized savings from reduced transportation costs attributable to production of Class A biosolids, estimated at 450 wet tons/day from the Combined Heat and Power (CHP) facility. Previously, the Blue Plains Plant produced 1,200 wet tons per/day of Class B biosolids.

\$ in thousands

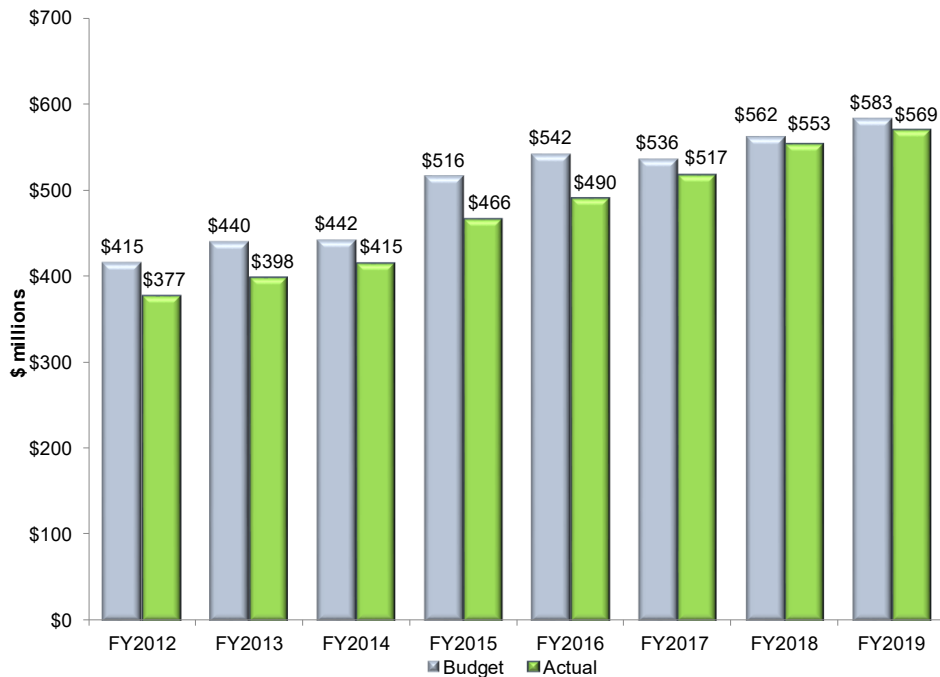
Solid Financial Performance with Revenues Consistently Exceeding Expenses

- FY 2019 Actual Operating cash receipts increased by 63.2 million to \$694.4 million or 10.0 percent
- FY 2019 Actual Operating expenses increased by \$16.0 million to \$569.3 million, or 2.9 percent
- FY 2019 Budget to actual results showed revenues exceeding and expenses below budget

Comparative Operating Receipts



Expenditure Budget to Actual



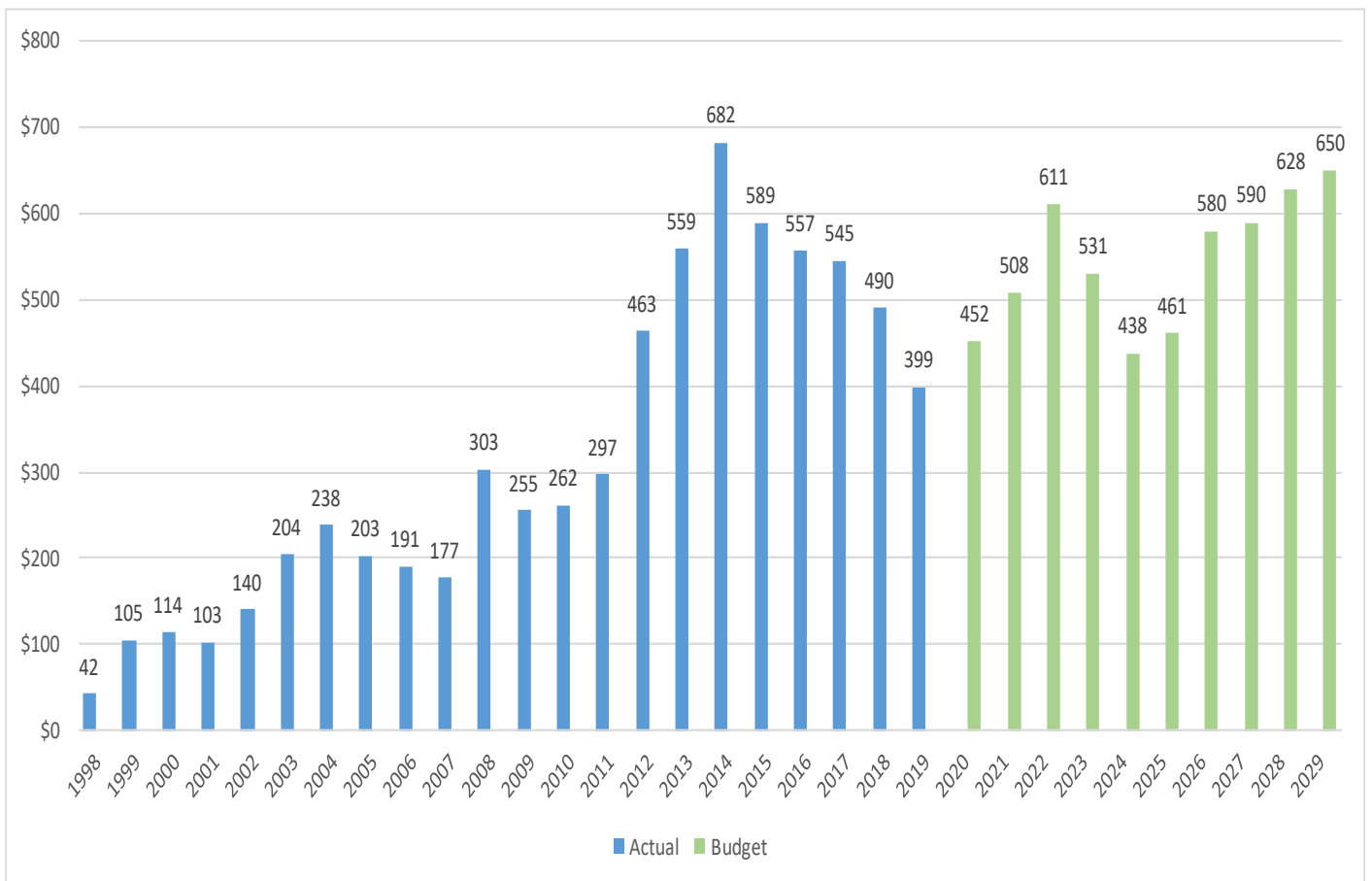
\$ in thousands

The 5.45 Billion Ten-Year CIP Protects Our Assets While Leveraging Long-Term Debt

The FY 2020 – FY 2029 financial plan anticipates capital disbursements of \$5.45 billion. Over the last 22 years, \$6.9 billion has been invested on DC Water’s system averaging approximately \$314 million per year. Projected annual spending ranges from \$438 million to nearly \$650 million as shown in the chart below (or approximately \$545 million per year from FY 2020 – FY 2029). 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.

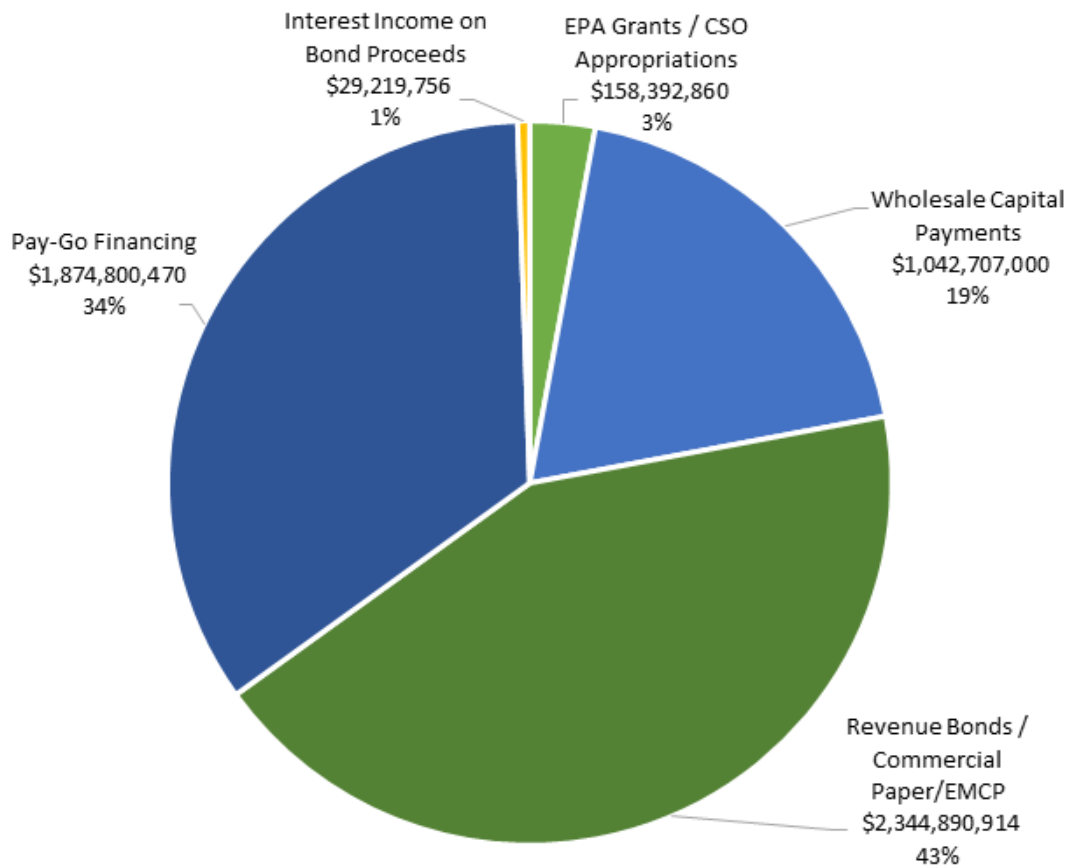
As noted earlier in this section, DC Water developed a comprehensive financing plan in FY 1999 with the dual goals of 1) securing the lowest cost of capital possible, and 2) maximizing administrative and operating flexibility. The plan includes the following components: Grants; wholesale capital payments;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

**Historical and Projected Capital Spending
FY 1998 – FY 2029**



FY 2020 – FY 2029 Capital Improvement Program Sources of Funds

	FY2020 - 2029 PLAN TOTAL	Percent of Total
EPA Grants / CSO Appropriations	\$ 158,392,860	2.91%
Wholesale Capital Payments	1,042,707,000	19.13%
Revenue Bonds / Commercial Paper/EMCP	2,344,890,914	43.02%
Pay-Go Financing	1,874,800,470	34.40%
Interest Income on Bond Proceeds	29,219,756	0.54%
TOTAL SOURCES	\$ 5,450,011,000	100.00%



- **EPA and CSO Grants** – For FY 2020 – FY 2029, EPA and CSO grants represent only 2.91 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 \$260.8. million in Congressional appropriations for the Clean Rivers Project (aka CSO LTCP) as of September 30, 2019.
- **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 19.1 percent of its capital funding will come from wholesale customers.
- **Revenue Bonds/Commercial Paper/EMCP** - Currently debt financing represents only 43.03 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 2020 – FY 2029 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 2020 and FY 2021 Debt Issuance Plans & Debt Service Assumptions

DC Water issued \$300 million in new bonds for Series 2019 A, B, C, and D, additionally refunding \$343 million of Series 2013A bonds in the first quarter of FY 2020.

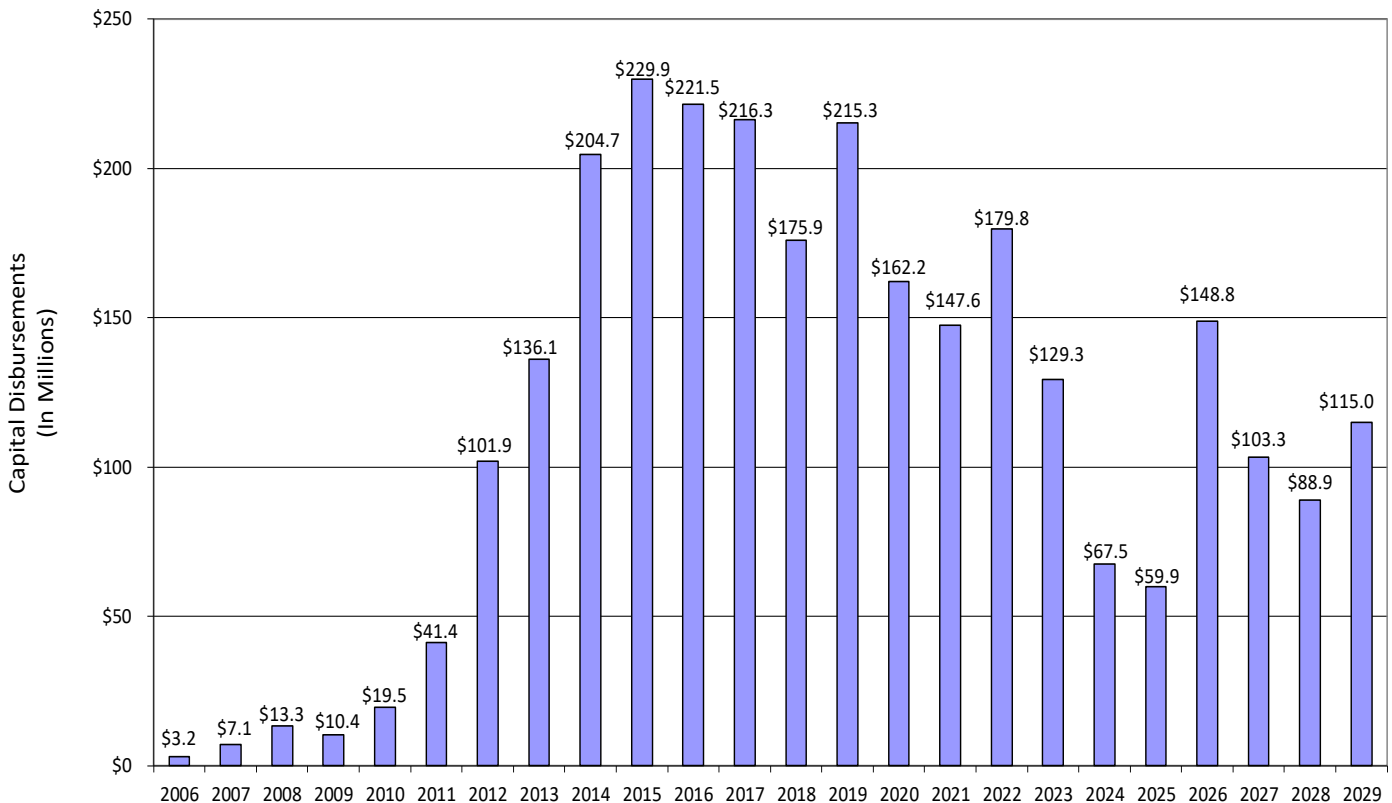
Based on current capital project spending, DC Water plans to: 1) issue approximately \$300 million in new bonds between the second and third quarters of FY 2021. For the purpose of financial planning, we have assumed fixed rate, tax-exempt bonds at 5.50 percent for FY 2020. Similarly, for the remainder of the ten-year plan we have assumed issuing long term bonds at 5.00 percent for FY 2021 and FY 2022, 5.50 percent for FY 2023 and FY 2024, and 6.00 percent for FY 2025 – FY 2029, and 2) issue commercial paper/EMCP for interim financing. The ten-year plan assumes a variable interest rate of 2.50 percent in FY 2020 – FY 2029. 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 \$2.8 billion and this year’s approved 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 2019, DC Water received federal funding of \$8.0 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 Surface Area Charge (CRIAC) fee. 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 \$249.2 million at the end of FY 2019. As detailed below, this includes \$61.45 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 2019 Year - End Cash (\$ in thousands)

Board-Adopted Operating Reserves (120 Days of O&M)		
60 Day Operating Reserve (Indenture Required)	\$	51,694
Renewal & Replacement Reserve (Indenture Required)		35,000
Undesignated Reserve		38,806
Total Operating Revenue	\$	125,500
 Other Reserves		
Rate Stabilization Fund Reserve	\$	61,450
DC Insurance Reserve		1,000
Total Other Reserve	\$	62,450
 Total Reserves		
Cash in Excess of Reserves ⁽¹⁾	\$	61,264
Total Cash Position ⁽¹⁾	\$	249,214

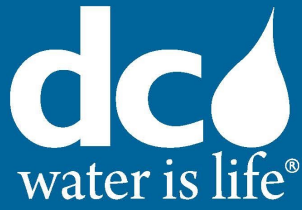
(1) Excludes Debt Service Reserve Funds

- **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 \$51.7 million in FY 2019.
- **Renewal & Replacement Reserve** - In FY 2018 the Board reaffirmed the amount of \$35 million in the financing policy. In 2018, Independent Financial Consultant reviewed R&R Reserves and recommended to maintain it at \$35 million. The recommendations were presented to the Board for review and approval. 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 \$38.8 million for FY 2019) 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 \$61.45 million as of September 2019. 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 \$61.45 million available at the end of FY 2020 – 2029.
- **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 days 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 FY 2021 Budgets

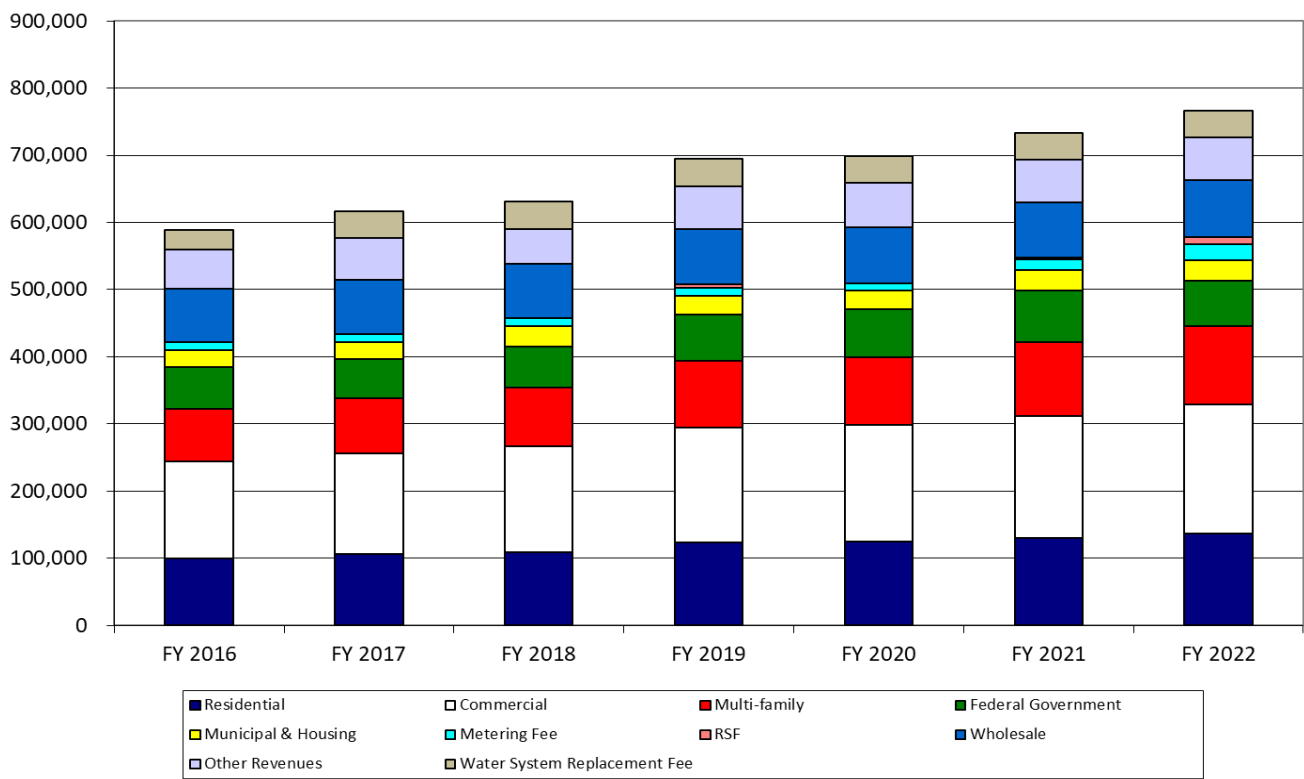
Section IV: RATES AND REVENUES



Leading Blue Ceremony with David Gadis

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 and Projected Cash Receipts



Historical and Projected Operating Cash Receipts (\$000's)

	FY 2016 Actual	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Revised	FY 2021 Proposed	FY 2022 Proposed
Residential	\$100,032	\$106,417	\$109,135	\$123,866	\$124,353	\$130,803	\$137,229
Commercial	144,355	149,991	158,021	170,764	173,826	180,589	191,375
Multi-family	77,566	82,238	86,431	99,573	100,884	110,241	116,768
Sub-Total Residential, Commercial and Multi-family	\$321,953	\$338,646	\$353,587	\$394,203	\$399,063	\$421,633	\$445,372
Federal Government (1)	62,989	57,540	62,100	68,163	71,887	77,571	67,220
District Government	15,988	17,628	21,362	17,356	17,585	18,377	18,668
D.C. Housing Authority	8,772	8,560	8,704	11,136	10,524	11,941	12,592
Transfer from Rate Stabilization Fund	-	-	-	6,000	-	2,500	10,500
Water System Replacement Fee (WSRF)	30,287	40,522	40,896	40,660	39,717	39,717	39,717
Metering Fee	11,479	11,566	11,745	11,613	10,776	15,405	24,083
Total Retail	\$451,467	\$474,462	\$498,394	\$549,130	\$549,553	\$587,144	\$618,152
IMA Wastewater Charges	71,970	72,931	71,080	72,029	72,066	70,791	72,915
Potomac Interceptor Wastewater Charges	7,814	8,205	9,942	10,087	10,473	11,194	11,530
Total Wholesale	\$79,784	\$81,136	\$81,022	\$82,116	\$82,539	\$81,986	\$84,445
District Stormwater Revenue (2)	944	1,025	1,247	1,503	1,000	1,000	1,000
Misc. Rev. (e.g. water tap installation, fire hydrant usage, etc.)	33,703	37,748	26,881	35,020	33,840	29,824	28,238
Washington Aqueduct Debt Service Revenue for Falls Church & Arlington	193	193	193	193	193	193	193
Interest Income (including interest on Bond Debt Service Reserve Fund)	1,253	1,676	2,200	3,392	3,966	3,428	3,726
System Availability Fee (SAF)	-	-	-	2,006	5,775	7,700	7,700
Transfer from DC PILOT/ROW Fund	-	-	-	-	-	-	-
DC Contribution of 50% PILOT Fund to DCW	-	-	-	-	-	-	-
Right-of-Way Fee	5,100	5,100	5,100	5,100	5,100	5,100	5,100
PILOT Fee	16,885	15,677	16,136	15,976	17,013	17,363	17,744
Total Other	\$58,078	\$61,419	\$51,757	\$63,191	\$66,887	\$64,608	\$63,701
Total Operating Cash Receipts	\$589,329	\$617,017	\$631,173	\$694,437	\$698,979	\$733,738	\$766,298

- (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 III 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 III for further explanation.

CUSTOMER CATEGORIES AND ACCOUNTS

As of September 30, 2019, DC Water had 125,603 active, metered water and wastewater accounts. In addition, there are 6,973 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 2019 revenue receipts are actual as of September 30, 2019.

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 customer whose premises is a single-family dwelling unit used for domestic purposes, whether as a row, detached or semi-detached structure, or as a single dwelling unit within an apartment building, or as a single dwelling unit within a condominium, or as a single dwelling unit within a cooperative housing association, where each unit is served by a separate service line and is individually metered and used for domestic purposes; or a multi-family structure or development of less than four (4) single-family, apartment, condominium, or cooperative housing association dwelling units where all the units are used for domestic purposes and served by a single service line that is master metered; excluding a premises operated as a nursing home, dormitory or transient housing business, including, but not limited to a bed and breakfast, hotel, motel, inn, boarding house or rooming house.

Multi-Family – a customer whose premises is a multi-family structure or development (such as an apartment, condominium, or cooperative housing association) used for domestic purposes, with four or more single-family, apartment, condominium, or cooperative housing association residential dwelling units served by the same service line that is master metered; excluding a premises operated as a nursing home, dormitory or transient housing business, including, but not limited to a bed and breakfast, hotel, motel, inn, boarding house or rooming house.

Non-residential – all customers not within either the residential or multifamily class including customers whose premises is comprised of one or more units that is not used for domestic purposes and all units are served by the same service line that is master metered.

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

In FY 2018, a COS was conducted by Independent Financial Consultants, which provided several recommendations that were incorporated in the FY 2019 rate proposal, and were approved by the Board.

- A reallocation of the costs associated with the Clean Rivers Impervious Area Charge (CRIAC) to the sewer utility results in a reduction in the CRIAC and an increase in the sewer volumetric charge.
- The revenue collected from the Water System Replacement Fee (WSRF), originally designed to fund the annual costs of 1 percent of DC Water’s water service line renewal and replacement program, has been used in its entirety to offset the water utility’s revenue requirements, resulting in a decrease to all water volumetric charges.
- Although these two reallocations cause shifts in the cost structure, and subsequent rates, DC Water customers will see only minimal changes to their bills.

In FY 2020, DC Water conducted a Cost of Service Study (COS) to align the COS with the multi-year rate proposals, therefore both will be done every two years going forward. Previously, Cost of Service study was conducted every three years. The COS consist of three components: i) revenue sufficiency analysis – to ensure that the revenues cover the costs that DC Water incurs; ii) cost of service analysis/rate equity – to ensure that the rates are equitably recovering the costs of service provided to customers; and iii) alternative rate structure analysis – to ensure that DC Water meets its priority pricing objectives. The results of the COS support the multi-year rate, charges and fee proposals for FY 2021 and FY 2022.

In FY 2020, an Independent Review of Rate Structure and Customer Assistance Programs was conducted to review and benchmark DC Water’s rates, rate structure and Customer Assistance Programs (CAP) to peer utilities. The findings of the study concurred that DC Water’s current customer class structure, monthly water lifeline threshold of 4 Ccf, ERU basis for recovering the CRIAC charge, CAP bill discount and temporary assistance programs are consistent with industry standards for ratemaking.

Residential, commercial and multi-family receipts are projected to increase in FY 2020 by approximately \$4.9 million, or 1.2 percent, over the FY 2019 level due to:

- Board-approved volumetric retail rate (water and sewer) increase of 11.5 percent, effective October 1, 2019
- Board-approved Clean Rivers Project CRIAC rate decreased from \$23.00 in FY 2019 to \$20.94 per ERU in FY 2020
- 1.5 percent decrease in consumption due to conservation from actual 2019 consumption
- In FY 2019, DC Water’s collections on its retail receivables was strong, with accounts receivable over 90 days at \$10.6 million as of September 30, 2019. DC Water will continue its aggressive collection efforts
- The customer assistance program reduces projected revenues by approximately \$3.3 million

Residential, commercial and multi-family customers:

- In FY 2020, residential customers include 106,097 accounts that comprise 17.8 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 2020, there are 8,372 accounts that comprise 14.4 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 8,994 accounts and will comprise of 24.9 percent of the projected FY 2020 operating revenues. In FY 2021, they will comprise 24.6 percent of the fiscal year operating revenue.

FY 2021 projections for Residential, Multi-Family and Commercial customers reflect an increase of \$22.6 million, or 5.7 percent from FY 2020 revised due primarily to proposed retail rate increase of 9.90 percent (combined water and sewer volumetric rates), and a decrease of \$1.42 monthly ERU fee for the Clean Rivers IAC. For FY 2022, the revenue increase is projected at \$23.7 million or 5.6 percent over FY 2021 due to the projected rate increase of 7.8 percent and a decrease of \$1.12 monthly ERU for CRIAC. In FY 2021, 1.5 percent and in FY 2022 and onwards, one percent decrease in consumption has been assumed due to conservation.

The Federal customers’ revised FY 2020 receipts are projected to total \$71.9 million; an increase of \$3.7 million, or 5.5 percent over FY 2019. In FY 2021, Federal revenues are projected to be \$77.6 million or 10.6 percent of the total operating revenues. The projected federal revenues will be higher by \$5.7 million or 7.9 percent in FY 2021 due to estimated rate and consumption assumptions provided under the federal billing policies. It may be noted that in order to reduce costs, the federal government issued 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 2022 Federal receipts are projected to decrease by \$10.4 million or 13.3 percent.

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 2020 billing was prepared in April 2018), 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 2020 estimated vs. actual consumption and rate increases will be included in the FY 2023 billing, to be prepared in April 2021.) 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 2020 federal revenues reflect the final billing sent to the federal government in April 2018 net of the adjustment for the prior year (FY 2017) 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 2020 receipts from the District of Columbia government and the District of Columbia Housing Authority are projected at \$28.1 million, a decrease of \$0.4 million or 1.3 percent below FY 2019. In 2021, receipts from these organizations are projected to total \$30.3 million, an increase of \$2.2 million, or 7.9 percent, mainly due to increases in retail volumetric rates. In FY 2022, the projected increase is \$0.9 million or 3.1 percent over FY 2021.

- The municipal customer group includes 523 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 2.5 percent of the FY 2020 operating budget, and 2.5 percent of the proposed FY 2021 budget and 2.4 percent of the proposed FY 2022 budget.
- The D.C. Housing Authority has multiple accounts that include public housing at various facilities throughout the District of Columbia. They have 1,124 accounts. Their annual billings make up only 1.5 percent of the FY 2020 cash receipts and 1.6 percent each of the proposed FY 2021 and FY 2022 cash receipts.

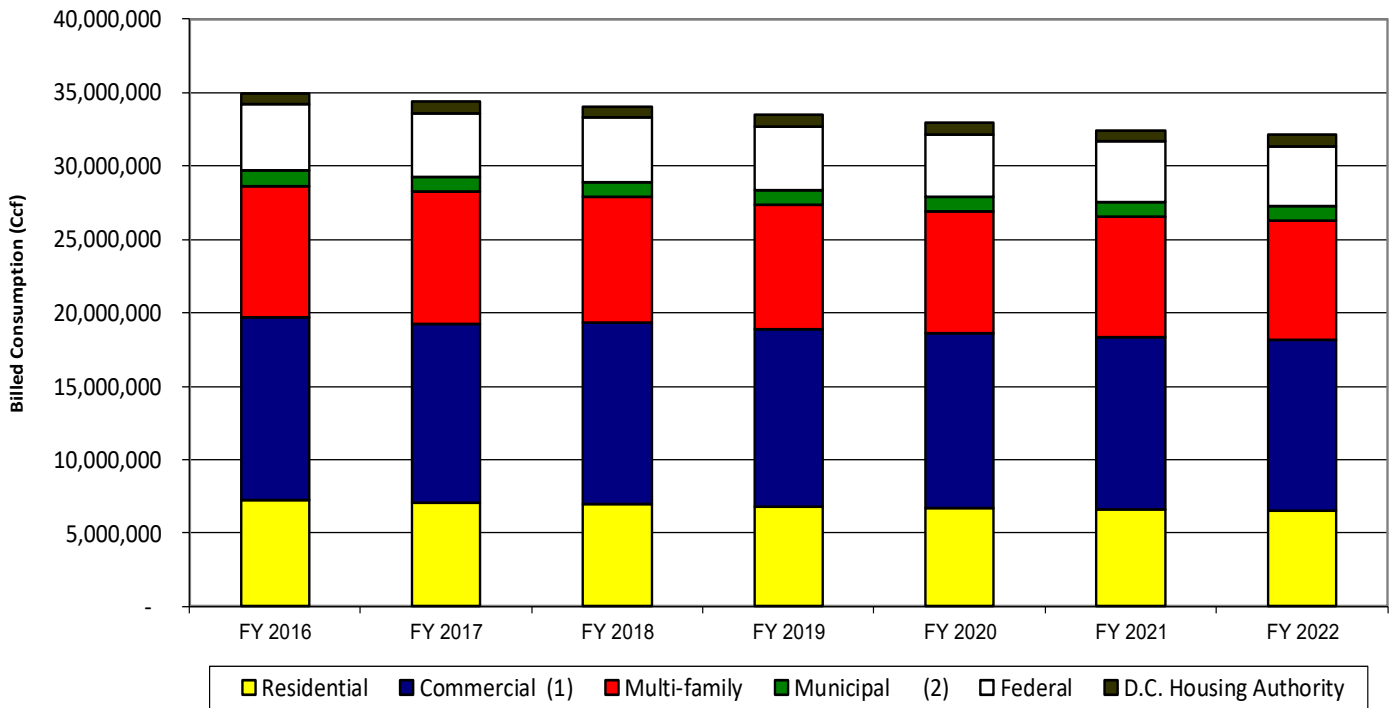
Wholesale customer revenue - FY 2020 revenues are projected at \$82.5 million, an increase of \$0.4 million or 0.5 percent over FY 2019. In FY 2021, wholesale revenues are projected to decrease by \$0.5 million or 0.7 percent to \$82.0 million. In FY 2022, the Wholesale revenues are projected to increase by \$2.5 million or 3.0 percent to \$84.4 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 and other multi-jurisdictional use facilities (MJUFs) 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 11.8 percent, 11.2 percent and 11.0 percent of total receipts in FY 2020, FY 2021 and FY 2022 respectively. In FY 2017, DC Water began billing our wholesale customers for the operating and maintenance costs of MJUFs, which include twelve interceptors and four pumping stations that carry suburban wastewater to the Blue Plains Plant. 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 1.8 percent in FY 2019. 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 1.5 percent decline in FY 2020 over FY 2019 actual, 1.5 percent decline in FY 2021 and 1 percent decline in FY 2022 and beyond.

Historical and Projected Billed Consumption (Ccf)



Historical and Projected Billed Consumption (Ccf)

	FY 2016 Actual	FY 2017 Actual	FY 2018 Actual	FY 2019 Actual	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected
Residential	7,262,184	7,108,543	6,961,844	6,793,773	6,692,000	6,592,000	6,526,000
Commercial (1)	12,440,516	12,144,071	12,353,040	12,073,263	11,892,000	11,714,000	11,597,000
Multi-family	8,889,754	9,013,474	8,574,676	8,461,956	8,335,000	8,210,000	8,128,000
Municipal (2)	1,110,717	993,799	1,024,775	1,002,306	987,000	973,000	964,000
Federal	4,493,362	4,335,937	4,339,051	4,287,024	4,223,000	4,160,000	4,118,000
D.C. Housing Authority	761,401	765,900	800,225	811,671	799,000	787,000	779,000
Total Retail	34,957,934	34,361,724	34,053,611	33,429,993	32,928,000	32,436,000	32,112,000

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

In FY 2018, a Cost of Service Study (COS) was conducted by Independent Financial Consultants, which provided several recommendations that were incorporated in the FY 2019 rate proposal, and were approved by the Board.

- A reallocation of the costs associated with the Clean Rivers Impervious Area Charge (CRIAC) to the sewer utility results in a reduction in the CRIAC and an increase in the sewer volumetric charge.
- The revenue collected from the Water System Replacement Fee (WSRF), originally designed to fund the annual costs of 1 percent of DC Water’s water service line renewal and replacement program, has been used in its entirety to offset the water utility’s revenue requirements, resulting in a decrease to all water volumetric charges.

- Although these two reallocations cause shifts in the cost structure, and subsequent rates, DC Water customers will see only minimal changes to their bills.

In FY 2020, DC Water conducted a Cost of Service Study (COS) to align the COS with the multi-year rate proposals, therefore both will be done every two years going forward. Previously, Cost of Service study was conducted every three years. The COS consist of three components: i) revenue sufficiency analysis – to ensure that the revenues cover the costs that DC Water incurs; ii) cost of service analysis/rate equity – to ensure that the rates are equitably recovering the costs of service provided to customers; and iii) alternative rate structure analysis – to ensure that DC Water meets its priority pricing objectives. The results of the COS support the multi-year rate, charges and fee proposals for FY 2021 and FY 2022.

In FY 2020, an Independent Review of Rate Structure and Customer Assistance Programs was conducted to review and benchmark DC Water’s rates, rate structure and Customer Assistance Programs (CAP) to peer utilities. The findings of the study concurred that DC Water’s current customer class structure, monthly water lifeline threshold of 4 Ccf, ERU basis for recovering the CRIAC charge, CAP bill discount and temporary assistance programs are consistent with industry standards for ratemaking.

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). The class-based water volumetric rates for FY 2020 to FY 2022 are listed below:

Water Volumetric	Class-Based (w/ lifeline)		
	FY 2020	FY 2021	FY 2022
Residential - 0-4 Ccf	\$3.06	\$3.49	\$3.63
Residential - >4 Ccf	\$4.10	\$4.50	\$4.74
Multi-Family / DC Housing	\$3.54	\$3.96	\$4.15
Non-Residential	\$4.25	\$4.65	\$4.91

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 percent renewal and replacement program for water service lines. It is anticipated that the Water System Replacement Fee (WSRF) will generate approximately \$39.7 million per year from fiscal years 2020 through 2029. 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.

Effective October 1, 2017 (FY 2018), DC Water amended the Water System Replacement Fee (WSRF) regulations to add rules and procedures for a Multi-family WSRF adjustment; amend the Customer Classifications to clarify the definitions for Residential, Multi-family and Non-Residential customers to include cooperative housing associations and other clarifications; and amend the definitions set forth in Chapter 41 to define the terms Condominium, Cooperative Housing Association, and Dwelling Unit used in the Customer Classification regulations.

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

The following terms are defined:

Condominium – means real estate, portions of which are designated for separate ownership and the remainder of which is designated for common ownership solely by the owners of the portions designated for separate ownership, provided the undivided interests in the common elements are vested in the unit owners.

Cooperative Housing Association – means an association, whether incorporated or unincorporated, organized for the purpose of owning and operating residential real property, the shareholders or members of which, by reason of their ownership of a stock or membership certificate, a proprietary lease or other evidence of membership, are entitled to occupy a dwelling unit pursuant to the terms of a proprietary lease or occupancy agreement.

Dwelling Unit – any habitable room or group of rooms with kitchen and bathroom facilities forming a single unit located within a building or structure, which is wholly or partially used or intended to be used for living, sleeping and the preparation and consumption of meals by human occupants, and is under the control of and for the use of the occupant.

Multi-Year Rates

DC Water moved to a multi-year rate proposal in FY 2016 covering the period FY 2017 and FY 2018. The second time that DC Water had adopted a multi-year rate proposal was in FY 2018 covering the period FY 2019 and FY 2020. The FY 2019 rates became effective from October 1, 2018. On March 5, 2020, DC Water’s Board adopted a multi-year rate proposal for a third time covering the period FY 2021 and FY 2022.

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 is 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.

DC Water has determined that implementing the System Availability Fee (SAF) regulations on the effective date of January 1, 2018 could present significant fiscal impacts to the District's New Communities Initiative, which includes redevelopment, one for one replacement and/or augmentation, of affordable housing units. On March 1, 2018, the DC Water Board considered comments received during the SAF public comment period and agreed to; 1) Extend the System Availability Fee (SAF) effective date from January 1, 2018 to June 1, 2018 for DCRA Construction Permit Applicants and federal facilities 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; 2) Revised the DC Water guidance document used to determine the SAF meter size from DC Water Standard Details and Guideline Masters to DC Water's Sizing Instructions and Worksheets; 3) Added procedures and requirements to receive credits for Affordable Housing Units (AHU) development and redevelopment; 4) Clarified the requirements for projects submitted prior to the effective date of June 1, 2018 and approved by June 1, 2019; 5) Added formulas to clarify how the SAF is calculated with the SAF credit, AHU credit and Net AHU credit; 6) Clarified requirements for Payment Plan Agreement; 7) Properties under redevelopment shall not receive a credit for accounts that are inactive for more than 24 months.

Effective June 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.

Affordable Housing Unit (AHU) – A housing unit that is offered for rent or sale for residential occupancy and as a result of a federal or District subsidy, incentive or benefit, and is made available and affordable to households whose income limit requirements are established by the federal or District program or agency or the Council for the District of Columbia.

Force Majeure Event – an event arising from causes beyond the control of DC Water or the control of any entity controlled by DC Water, which results in the closure of DC Water facilities.

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 March 2, 2017, the Board approved the expansion of 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 became effective May 1, 2017. On March 5, 2020, DC Water’s Board adopted a proposal to increase the maximum CRIAC IAC credit from 50% to 75%, effective October 1, 2020.

Clean Rivers Impervious Area Charge (CRIAC)

In September 2018, DC Water formed the 19-member Stakeholder Alliance (DCWSA) to provide independent advice and a diversity of viewpoints to DC Water Management on a variety of programs and policies; increase customer education by providing DC Water with new opportunities for outreach; and propose to DC Water ways to continue effective and efficient long-term public involvement with improved communication tools.

DCWSA conducted several meetings to discuss the Clean Rivers Impervious Area Charge (CRIAC) and options to mitigate the rapidly increasing CRIAC. Some of the possible criteria included: 1) equitableness; 2) administrative feasibility; 3) revenue neutrality; 4) legal challenges and defensibility, 5) executable; and 6) adheres to industry practice.

The DC Water’s Department of Engineering and Technical Services (DETS) proposed two methodologies for shifting cost from the CRIAC to sewer volumetric rate. The two methodologies that were calculated: 1) 18 percent Shift – calculated based on an average of pollutants concentrations in sanitary wastewater, stormwater runoff and Combined Sewer Overflow (CSO); and 2) 37 percent Shift – calculated based on volume of sanitary wastewater, stormwater runoff and CSO. The 18 percent shift calculation and methodology has a lot more variation in the pollutant concentrations depending on the data used and the time of year. Management determined that the 37 percent Shift volumetric methodology has a greater justification, more easily defended and could be phased-in.

However, based on meetings with the Stakeholders Alliance (SA) and discussions with the customer groups, an 18 percent CRIAC shift to sewer volumetric rate was proposed for FY 2020 in order for the rates and charges to be fair and equitable for all customers.

After considering all possible criteria and customer impacts, the Board agreed to a proposal shifting 37 percent cost from the CRIAC to sewer volumetric rate to be phased-in 18 percent in FY 2020, 28 percent in FY 2021 and 37 percent in FY 2022, effective October 1, 2019.

Clean Rivers Impervious Area Charge Incentive Program Discount

On October 1, 2013, DC Water’s Board established the Clean Rivers Area Incentive Program Discount for stormwater best management practices, which provided a 4 percent maximum incentive discount off the chargeable CRIAC for customers that installed certain eligible stormwater best management practices that reduce the amount of stormwater runoff generated from a property.

The general public and Stakeholder Alliance (DCWSA) voiced concerns that the Clean Rivers Area Program Discount 4 percent maximum incentive for stormwater was too low and did not incentivize customers to install best management practices.

DC Water’s management analyzed and evaluated the Clean Rivers Area Program Discount historical data and determined that it was feasible to increase the CRIAC incentive discount for customers that installed certain eligible stormwater best management practices.

On April 4, 2019, DC Water’s Board adopted a proposal to increase the maximum CRIAC incentive discount from 4 percent to 20 percent, effective October 1, 2019.

The Board has approved the following changes in the rates and fees for rate making to be effective from October 1, 2019:

- 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 \$2.91 per Ccf to \$3.06 per Ccf, {\$4.09 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 \$3.90 per Ccf to \$4.10 per Ccf, {\$5.48 per 1,000 gallons}
 - Multi-family customers: water rate increase of \$0.17 per Ccf, {\$0.22 per 1,000 gallons} from \$3.37 per Ccf to \$3.54 per Ccf, {\$4.73 per 1,000 gallons}
 - Non-Residential customers: water rate increase of \$0.20 per Ccf, {\$0.26 per 1,000 gallons} from \$4.05 per Ccf to \$4.25 per Ccf, {\$5.68 per 1,000 gallons}
- Sewer rate increase of \$1.14 per Ccf, {\$1.53 per 1,000 gallons} for all classes of customers from \$7.75 per Ccf to \$8.89 per Ccf, {\$11.89 per 1,000 gallons}
- Monthly Clean Rivers Impervious Area Charge (CRIAC) decrease of \$2.06 from \$23.00 per ERU to \$20.94 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 cost of 1 percent renewal and replacement program for water service lines. There will be no increase in WSRF. The WSRF varies with meter size. WSRF for 5/8” meter size is \$6.30.
- 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 \$0.51 per Ccf, {\$0.68 per 1,000 gallons}
 - Increase of \$0.01 in the ROW fee, {\$0.01 per 1,000 gallons} to \$0.19 per Ccf, {\$0.25 per 1,000 gallons}
- These changes increased the typical residential customer’s total monthly bill by \$6.17 or 5.7 percent

The Board has proposed the following changes in the rates and fees for rate making to be effective from October 1, 2020:

- Water volumetric rates:
 - Residential customers: “Consumption of 0 – 4 Ccf” - water rate increase of \$0.43 per Ccf, {\$0.58 per 1,000 gallons} from \$3.06 per Ccf to \$3.49 per Ccf, {\$4.67 per 1,000 gallons}
 - Residential customers: “Consumption greater than 4 Ccf” - water rate increase of \$0.40 per Ccf, {\$0.54 per 1,000 gallons} from \$4.10 per Ccf to \$4.50 per Ccf, {\$6.02 per 1,000 gallons}
 - Multi-family customers: water rate increase of \$0.42 per Ccf, {\$0.56 per 1,000 gallons} from \$3.54 per Ccf to \$3.96 per Ccf, {\$5.29 per 1,000 gallons}
 - Non-Residential customers: water rate increase of \$0.40 per Ccf, {\$0.54 per 1,000 gallons} from \$4.25 per Ccf to \$4.65 per Ccf, {\$6.22 per 1,000 gallons}
- Sewer rate increase of \$0.88 per Ccf, {\$1.17 per 1,000 gallons} for all classes of customers from \$8.89 per Ccf to \$9.77 per Ccf, {\$13.06 per 1,000 gallons}
- Monthly Clean Rivers Impervious Area Charge (CRIAC) decrease of \$1.42 from \$20.94 per ERU to \$19.52 per ERU
- Monthly Customer Metering Fee increase of \$1.10 from \$3.86 to \$4.96 for a 5/8” meter size. The Customer Metering fee varies by size
- The WSRF recovers the cost of 1 percent renewal and replacement program for water service lines. There will be no increase in WSRF. The WSRF varies with meter size. 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 \$0.03 in the PILOT fee, {\$0.04 per 1,000 gallons} to \$0.54 per Ccf, {\$0.72 per 1,000 gallons}
 - There is no increase in the Right-of-Way (ROW) fee, which remains same at \$0.19 per Ccf, {\$0.25 per 1,000 gallons}
- These changes increased the typical residential customer’s total monthly bill by \$6.90 or 6.6 percent

The Board has proposed the following changes in the rates and fees for rate making to be effective from October 1, 2021:

- Water volumetric rates:
 - Residential customers: “Consumption of 0 – 4 Ccf” - water rate increase of \$0.14 per Ccf, {\$0.18 per 1,000 gallons} from \$3.49 per Ccf to \$3.63 per Ccf, {\$4.85 per 1,000 gallons}
 - Residential customers: “Consumption greater than 4 Ccf” - water rate increase of \$0.24 per Ccf, {\$0.32 per 1,000 gallons} from \$4.50 per Ccf to \$4.74 per Ccf, {\$6.34 per 1,000 gallons}
 - Multi-family customers: water rate increase of \$0.19 per Ccf, {\$0.26 per 1,000 gallons} from \$3.96 per Ccf to \$4.15 per Ccf, {\$5.55 per 1,000 gallons}
 - Non-Residential customers: water rate increase of \$0.26 per Ccf, {\$0.34 per 1,000 gallons} from \$4.65 per Ccf to \$4.91 per Ccf, {\$6.56 per 1,000 gallons}
- Sewer rate increase of \$0.87 per Ccf, {\$1.16 per 1,000 gallons} for all classes of customers from \$9.77 per Ccf to \$10.64 per Ccf, {\$14.22 per 1,000 gallons}
- Monthly Customer Metering Fee increase of \$2.79 from \$4.96 to \$7.75 for a 5/8” meter size. The Customer Metering fee varies by size
- Monthly Clean Rivers Impervious Area Charge (CRIAC) decrease of \$1.12 from \$19.52 per ERU to \$18.40 per ERU
- The WSRF recovers the cost of 1 percent renewal and replacement program for water service lines. There will be no increase in WSRF. The WSRF varies with meter size. 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 \$0.02 in the PILOT fee, {\$0.03 per 1,000 gallons} to \$0.56 per Ccf, {\$0.75 per 1,000 gallons}
 - There is no increase in the Right-of-Way (ROW) fee, which remains same at \$0.19 per Ccf, {\$0.25 per 1,000 gallons}
- These changes increased the typical residential customer’s total monthly bill by \$7.40 or 6.7 percent

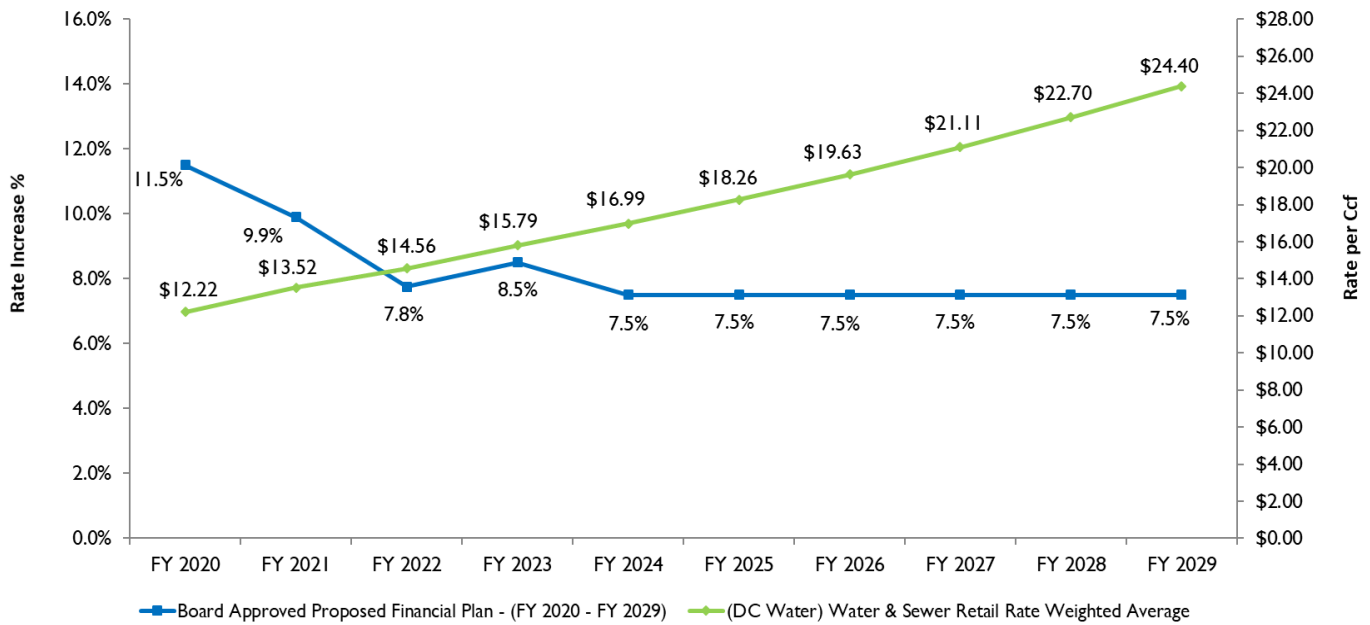
The ten-year projected water and sewer rate increases under this year’s plan (FY 2020 – FY 2029) total 82.7 percent driven primarily by capital spending for DC Water’s \$5.45 billion capital improvement program.

Primary spending in the ten-year capital plan includes: DC Clean Rivers Project (CSO LTCP), Effluent Filter Upgrade, Nitrification Reactor/Sedimentation Rebuild and various on-going water and sewer infrastructure improvements.

Based on feedback from the new Stakeholder Alliance and discussions with customers about the Clean Rivers Impervious Area Charge (CRIAC) that funds the Clean Rivers Program, there was a proposal for FY 2020 to shift 18 percent of the costs for the Clean Rivers program from the CRIAC to the sewer volumetric rate. This would increase to 28 percent in FY 2021 and 37 percent in FY 2022. This was based on an assessment that, on average, 37 percent of the volume in the new tunnels is from wastewater. The proposal to shift CRIAC to volumetric was adopted by the Board.

The public outreach and comment process for the rate proposal for FY 2021 and FY 2022 will occur between March and August 2020. With the approval of the rates by DC Water Board, these changes will increase the typical residential customer’s monthly bill by \$6.90 or 6.6 percent in FY 2021 and \$7.40 or 6.7 percent in FY 2022 as shown on page IV–26.

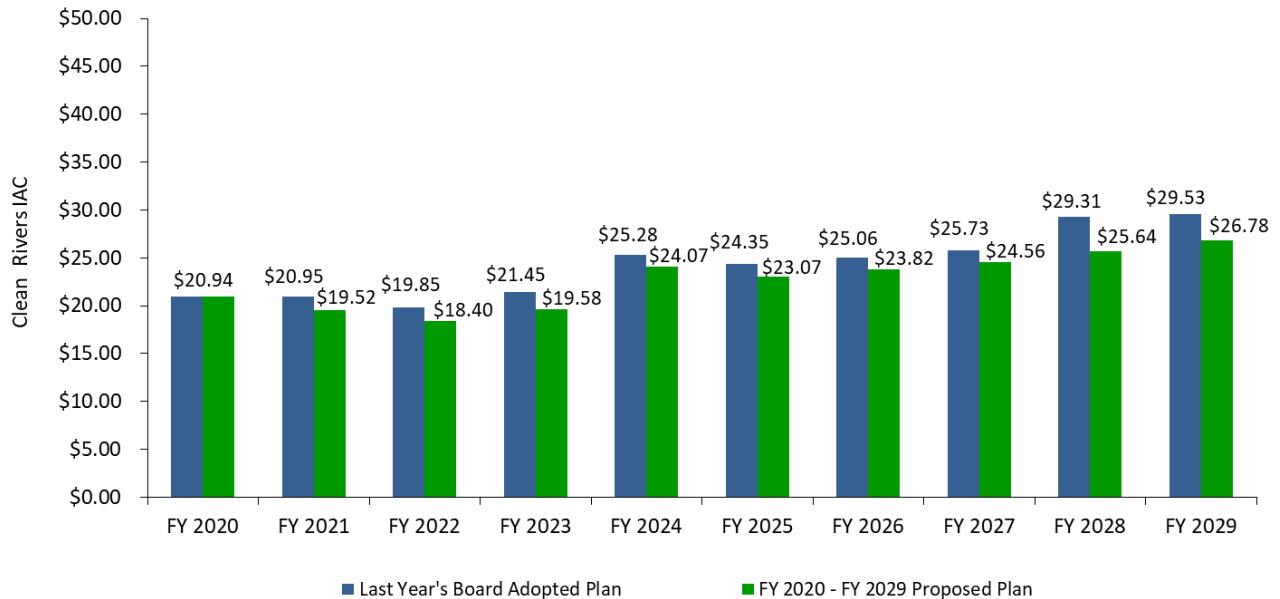
PROJECTED RETAIL WATER & SEWER RATE CHANGES FY 2020 – FY 2029



- 1) Rates shown above reflect weighted water and sewer rates for Residential customer category
- 2) In FY 2021 approved water and sewer rate increase of \$1.30 per Ccf, (\$1.74 per 1,000 gallons)
— Combined water and sewer rate increases from \$12.22 to \$13.52 per Ccf
- 3) In FY 2022 approved water and sewer rate increase of \$1.04 per Ccf, (\$1.39 per 1,000 gallons)
— Combined water and sewer rate increases from \$13.52 to \$14.56 per Ccf
- 4) Rate increase of 9.9 percent for FY 2021 and 7.8 percent for FY 2022

PROJECTED MONTHLY CLEAN RIVERS IMPERVIOUS SURFACE AREA CHARGE (CRIAC) CHANGES

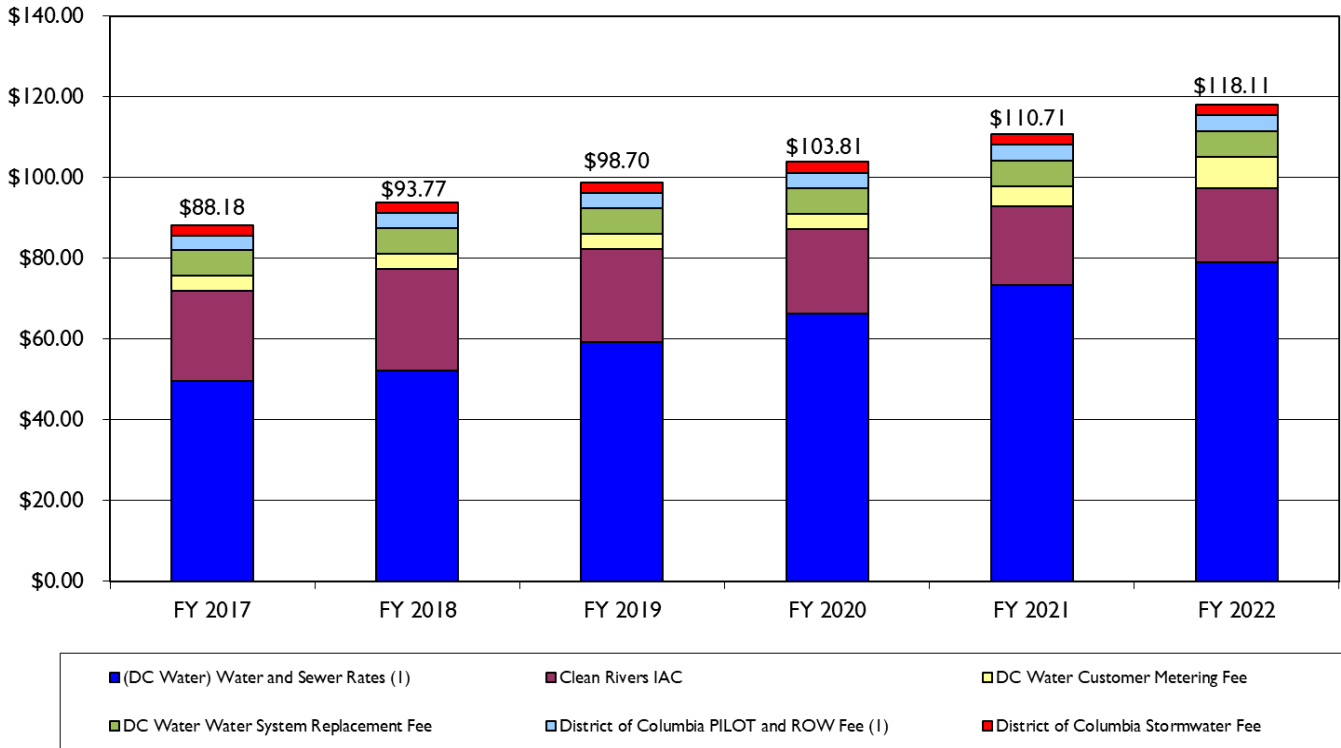
FY 2020 – FY 2029



- The projected charges displayed in the chart above are primarily driven by anticipated debt service costs necessary to support the twenty-five year \$2.8 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 \$234.24 in FY 2021 to \$321.36 in FY 2029
- The proposed CRIAC shift to sewer volumetric with 18 percent in FY 2020, 28 percent in FY 2021 and 37 percent in FY 2022 and beyond was recommended because it balances infrastructure investment with growth in rates. The shift is based on an assessment that on average 37 percent of volume in the tunnels is from wastewater. With the proposed shift the overall household charges increase by 6.6 percent in FY 2021 and 6.7 percent in FY 2022. The gradual shift helps avoid rate shock to customers. The CRIAC for FY 2021 is projected to decrease from \$20.94 to \$19.52 per ERU, per month and to \$18.40 per ERU per month for FY 2022

AVERAGE RESIDENTIAL CUSTOMER MONTHLY BILL

FY 2017 – FY 2022



- (1) Assumes average monthly consumption of 5.42 Ccf, or 4,054 gallons
- FY 2021 cost per gallon is a little over \$0.01 (water and sewer rates only)

AVERAGE RESIDENTIAL CUSTOMER MONTHLY BILL

	Units	FY 2017	FY 2018	FY 2019	Current FY 2020	Proposed FY 2021	Proposed FY 2022
DC Water Water and Sewer Retail Rates ⁽¹⁾	Ccf	\$ 49.63	\$ 52.13	\$ 59.18	\$ 66.25	\$ 73.30	\$ 78.92
DC Water Clean Rivers IAC ⁽²⁾	ERU	22.24	25.18	23.00	20.94	19.52	18.40
DC Water Customer Metering Fee	5/8"	3.86	3.86	3.86	3.86	4.96	7.75
DC Water Water System Replacement Fee ⁽⁴⁾	5/8"	6.30	6.30	6.30	6.30	6.30	6.30
Subtotal DC Water Rates & Charges		\$ 82.03	\$ 87.47	\$ 92.34	\$ 97.35	\$ 104.08	\$ 111.37
Increase / Decrease		\$ 4.26	\$ 5.44	\$ 4.87	\$ 5.01	\$ 6.73	\$ 7.29
District of Columbia PILOT Fee ⁽¹⁾	Ccf	\$ 2.61	\$ 2.66	\$ 2.71	\$ 2.76	\$ 2.93	\$ 3.04
District of Columbia Right-of-Way Fee ⁽¹⁾	Ccf	0.87	0.97	0.98	1.03	1.03	1.03
District of Columbia Stormwater Fee ⁽³⁾	ERU	2.67	2.67	2.67	2.67	2.67	2.67
Subtotal District of Columbia Charges		\$ 6.15	\$ 6.30	\$ 6.36	\$ 6.46	\$ 6.63	\$ 6.74
Total Amount Appearing on DC Water Bill		\$ 88.18	\$ 93.77	\$ 98.70	\$ 103.81	\$ 110.71	\$ 118.11
Increase / Decrease Over Prior Year		\$ 4.33	\$ 5.59	\$ 4.93	\$ 5.11	\$ 6.90	\$ 7.40
Percent Increase in Total Bill		5.2%	6.3%	5.3%	5.2%	6.6%	6.7%

(1) Assumes average monthly consumption of 5.42 Ccf, or (4,054 gallons)

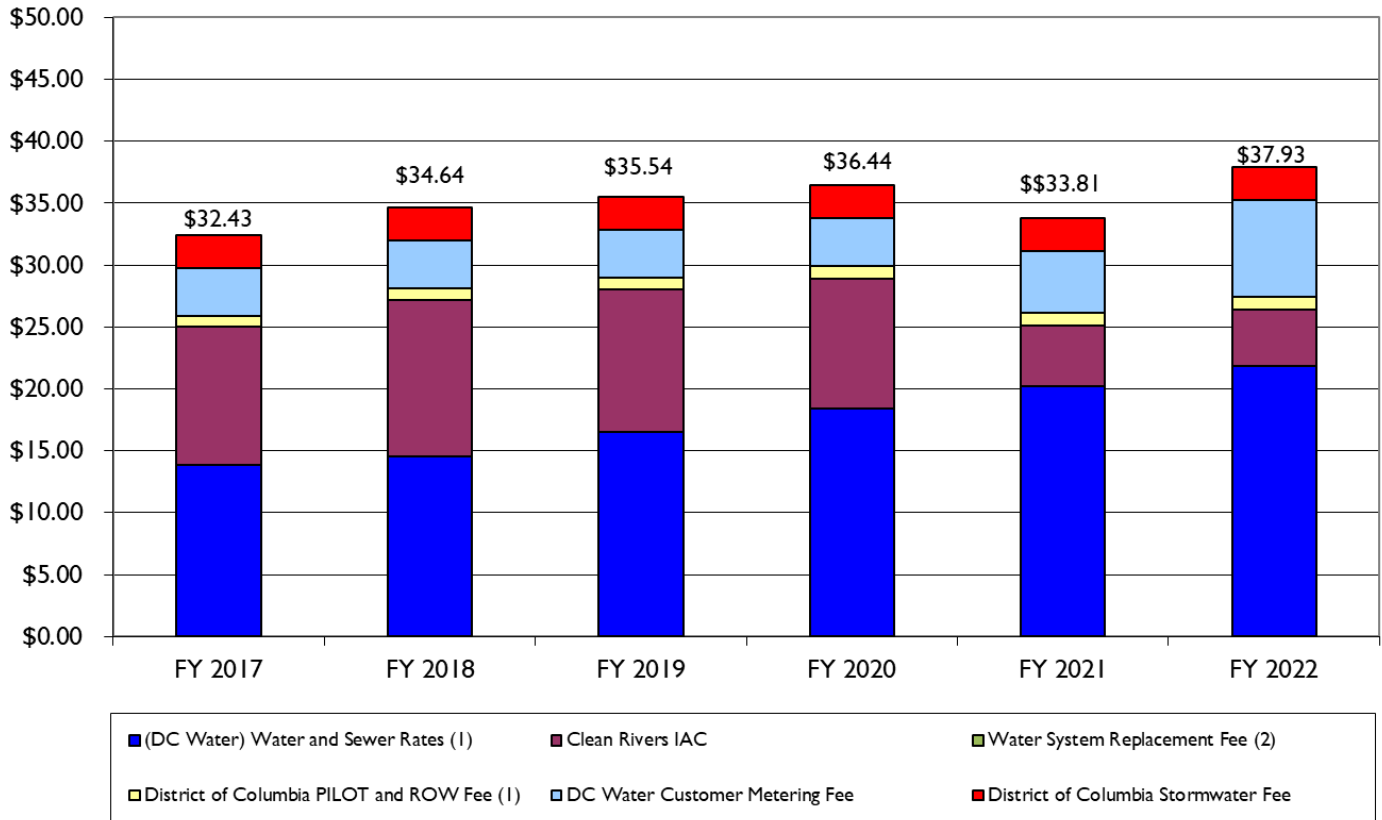
(2) Assumes average 1 Equivalent Residential Unit (ERU)

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

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

AVERAGE CAP CUSTOMER MONTHLY BILL

FY 2017 – FY 2022



- 1) Assumes average monthly consumption of 5.42 Ccf, or 4,054 gallons
 - FY 2021 & FY 2022 cost per gallon is a little over \$0.01 (water and sewer rates only)
- 2) Assumes 100 percent discount for Water System Replacement Fee (WSRF) to CAP customers, therefore, WSRF is not shown in the above graph
- 3) Assumes 75 percent credit for Clean Rivers Impervious Area Charge (CRIAC) to CAP customers

AVERAGE CAP CUSTOMER MONTHLY BILL

FY 2017 – FY 2022

	Units	FY 2017	FY 2018	FY 2019	Current FY 2020	Proposed FY 2021	Proposed FY 2022
DC Water Water and Sewer Retail Rates ⁽¹⁾	Ccf	\$ 49.63	\$ 52.13	\$ 59.18	\$ 66.25	\$ 73.30	\$ 78.92
DC Water Clean Rivers IAC	ERU	22.24	25.18	23.00	20.94	19.52	18.40
DC Water Customer Metering Fee	5/8"	3.86	3.86	3.86	3.86	4.96	7.75
DC Water Water System Replacement Fee	5/8"	6.30	6.30	6.30	6.30	6.30	6.30
Subtotal DC Water Rates & Charges		\$ 82.03	\$ 87.47	\$ 92.34	\$ 97.35	\$ 104.08	\$ 111.37
Increase / Decrease		\$ 4.26	\$ 5.44	\$ 4.87	\$ 5.01	\$ 6.73	\$ 7.29
District of Columbia PILOT Fee ⁽¹⁾	Ccf	\$ 2.61	\$ 2.66	\$ 2.71	\$ 2.76	\$ 2.93	\$ 3.04
District of Columbia Right-of-Way Fee ⁽¹⁾	Ccf	0.87	0.97	0.98	1.03	1.03	1.03
District of Columbia Stormwater Fee ⁽⁴⁾	ERU	\$ 2.67	2.67	2.67	2.67	2.67	2.67
Subtotal District of Columbia Charges		\$ 6.15	\$ 6.30	\$ 6.36	\$ 6.46	\$ 6.63	\$ 6.74
Total Amount		\$ 88.18	\$ 93.77	\$ 98.70	\$ 103.81	\$ 110.71	\$ 118.11
Less: CAP Discount (4 Ccf per month) ^{(1), (2)}		(38.33)	(40.24)	(45.36)	(50.60)	(55.96)	(60.08)
Water System Replacement Fee (WSRF) ⁽³⁾		(6.30)	(6.30)	(6.30)	(6.30)	(6.30)	(6.30)
Clean Rivers IAC ⁽⁵⁾		(11.12)	(12.59)	(11.50)	(10.47)	(14.64)	(13.80)
Total Amount Appearing on DC Water Bill		\$ 32.43	\$ 34.64	\$ 35.54	\$ 36.44	\$ 33.81	\$ 37.93
Increase / Decrease Over Prior Year		\$ (8.50)	\$ 2.21	\$ 0.90	\$ 0.90	\$ (2.63)	\$ 4.12
CAP Customer Discount as a Percent of Total Bill		-63.2%	-63.0%	-64.0%	-64.9%	-69.5%	-67.9%

(1) Assumes average monthly consumption of 5.42 Ccf, or (4,054 gallons)

(2) Expansion of CAP program in FY 2009 assumes discount to first 4 Ccf of Water and Sewer and to first 4 Ccf of PILOT and ROW in FY 2011

(3) Assumes 100 percent discount for Water System Replacement Fee (WSRF) to CAP customers effective October 1, 2015

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

(5) Assumes 50 percent discount for FY 2020 and 75% discount for FY 2021 and FY 2022 for the Clean Rivers IAC



Recent and Proposed Rate & Fee Changes

AVERAGE CAP2 CUSTOMER MONTHLY BILL FY 2019 – FY 2022

	Units	FY 2019	Current FY 2020	Proposed FY 2021	Proposed FY 2022
DC Water Water and Sewer Retail Rates ⁽¹⁾	Ccf	\$ 59.18	\$ 66.25	\$ 73.30	\$ 78.92
DC Water Clean Rivers IAC	ERU	23.00	20.94	19.52	18.40
DC Water Customer Metering Fee	5/8"	3.86	3.86	4.96	7.75
DC Water Water System Replacement Fee	5/8"	6.30	6.30	6.30	6.30
Subtotal DC Water Rates & Charges		\$ 92.34	\$ 97.35	\$ 104.08	\$ 111.37
Increase / Decrease		\$ 4.87	\$ 5.01	\$ 6.73	\$ 7.29
District of Columbia PILOT Fee	Ccf	\$ 2.71	\$ 2.76	\$ 2.93	\$ 3.04
District of Columbia Right-of-Way Fee	Ccf	0.98	1.03	1.03	1.03
District of Columbia Stormwater Fee	ERU	2.67	2.67	2.67	2.67
Subtotal District of Columbia Charges		\$ 6.36	\$ 6.46	\$ 6.63	\$ 6.74
Total Amount		\$ 98.70	\$ 103.81	\$ 110.71	\$ 118.11
Less: CAP2 Discount (3 Ccf per month) ⁽²⁾		(31.98)	(35.85)	(39.78)	(42.81)
Clean Rivers IAC ⁽³⁾		(11.50)	(10.47)	(9.76)	(9.20)
Total Amount Appearing on DC Water Bill		55.22	57.49	61.17	66.10
Increase / Decrease Over Prior Year		\$	\$ 2.27	\$ 3.68	\$ 4.93
CAP Customer Discount as a Percent of Total Bill		-44.0%	-44.6%	-44.7%	-44.0%

(1) Assumes average monthly consumption of 5.42 Ccf, or (4,054 gallons)

(2) Expansion of CAP2 program in FY 2019 assumes discount to first 3 Ccf of Water and Sewer

(3) Expansion of CAP2 program in FY 2019 assumes 50 percent discount for the Clean Rivers IAC

AVERAGE CAP3 CUSTOMER MONTHLY BILL FY 2019 – FY 2022

	Units	FY 2019	Current FY 2020	Proposed FY 2021	Proposed FY 2022
DC Water Water and Sewer Retail Rates ⁽¹⁾	Ccf	\$ 59.18	\$ 66.25	\$ 73.30	\$ 78.92
DC Water Clean Rivers IAC	ERU	23.00	20.94	19.52	18.40
DC Water Customer Metering Fee	5/8"	3.86	3.86	4.96	7.75
DC Water Water System Replacement Fee	5/8"	6.30	6.30	6.30	6.30
Subtotal DC Water Rates & Charges		\$ 92.34	\$ 97.35	\$ 104.08	\$ 111.37
Increase / Decrease		\$ 4.87	\$ 5.01	\$ 6.73	\$ 7.29
District of Columbia PILOT Fee	Ccf	\$ 2.71	\$ 2.76	\$ 2.93	\$ 3.04
District of Columbia Right-of-Way Fee	Ccf	0.98	1.03	1.03	1.03
District of Columbia Stormwater Fee	ERU	2.67	2.67	2.67	2.67
Subtotal District of Columbia Charges		\$ 6.36	\$ 6.46	\$ 6.63	\$ 6.74
Total Amount		\$ 98.70	\$ 103.81	\$ 110.71	\$ 118.11
Less: CAP3 Discount Clean Rivers IAC ⁽²⁾		(17.25)	(15.71)	(14.64)	(13.80)
Total Amount Appearing on DC Water Bill		81.45	88.10	96.07	104.31
Increase / Decrease Over Prior Year		\$ -	\$ 6.65	\$ 7.97	\$ 8.24
CAP Customer Discount as a Percent of Total Bill		-17.5%	-15.1%	-13.2%	-11.7%

(1) Assumes average monthly consumption of 5.42 Ccf, or (4,054 gallons)

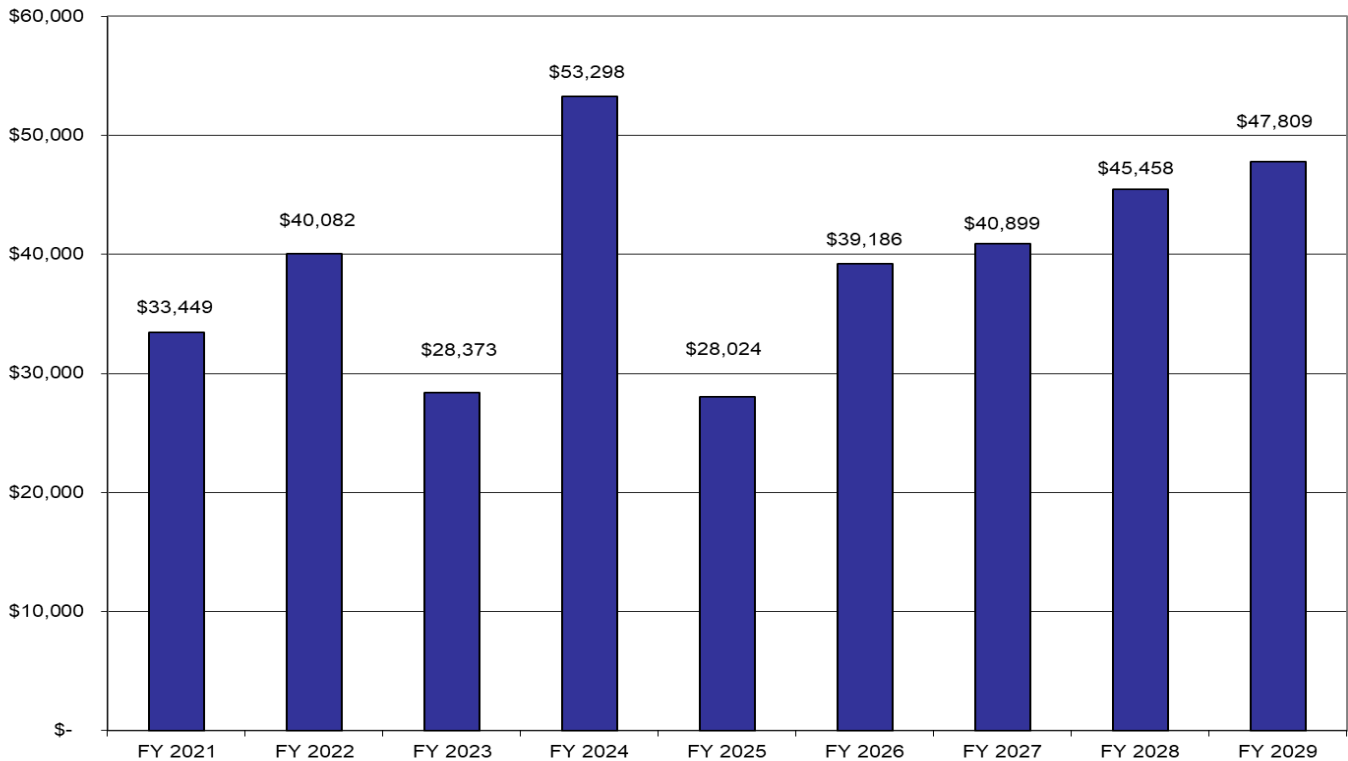
(2) Expansion of CAP3 program in FY 2019 assumes 75 percent discount for the Clean Rivers IAC

FY 2020 – FY 2029 FINANCIAL PLAN

As shown in the chart below, incremental increases in retail revenues are projected to range from \$28.0 million to \$53.3 million in FY 2021 – FY 2029, due to:

- Average annual debt service increase of 6.1 percent
- Average annual O&M increase of 3.3 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 plan reflects increases in operating and maintenance and increases in debt service cost associated with DC Water’s Capital Improvement Program (CIP).

INCREMENTAL INCREASE IN REVENUES
FY 2021 – FY 2029
(\$000's)

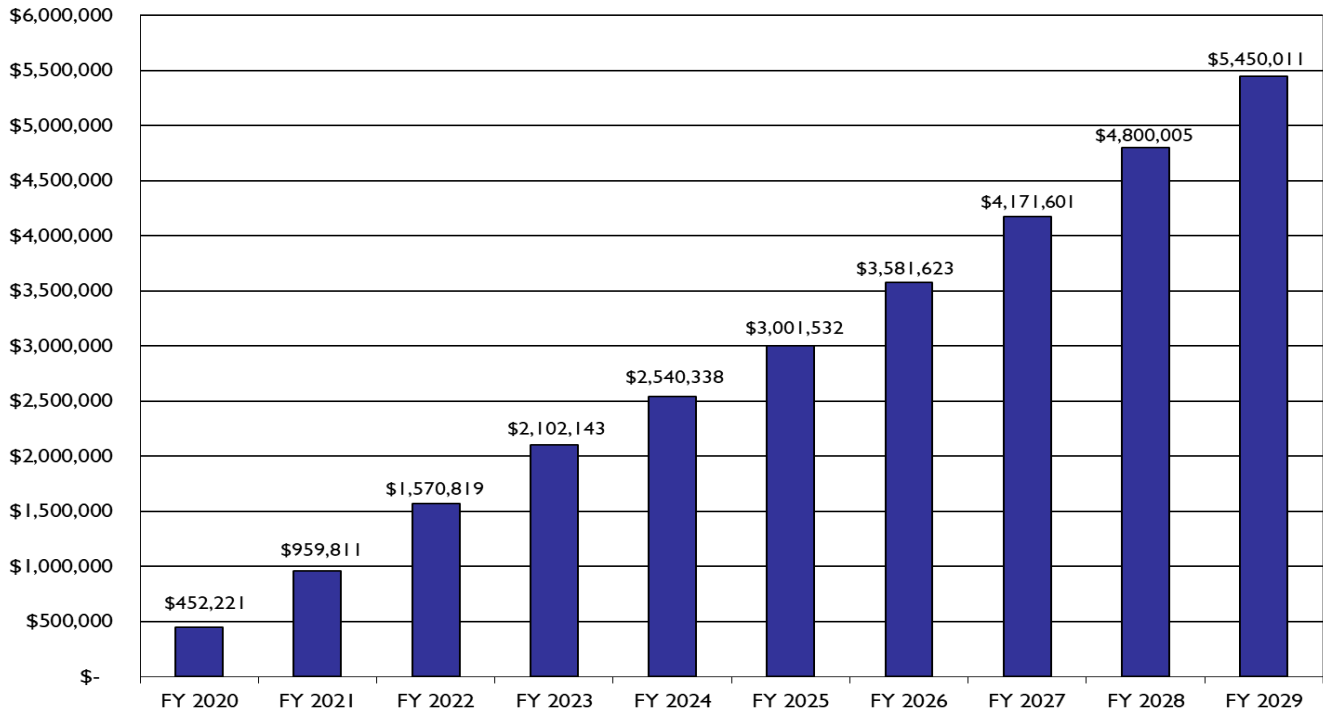


These costs would be recovered through:

- Proposed water and sewer rate increases of 9.9 percent in FY 2021 and 7.5 percent to 8.5 percent from FY 2022 to FY 2029
- Proposed Clean Rivers Impervious Surface Area Charge (CRIAC) revenues ranging from \$19.52 to \$26.78 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

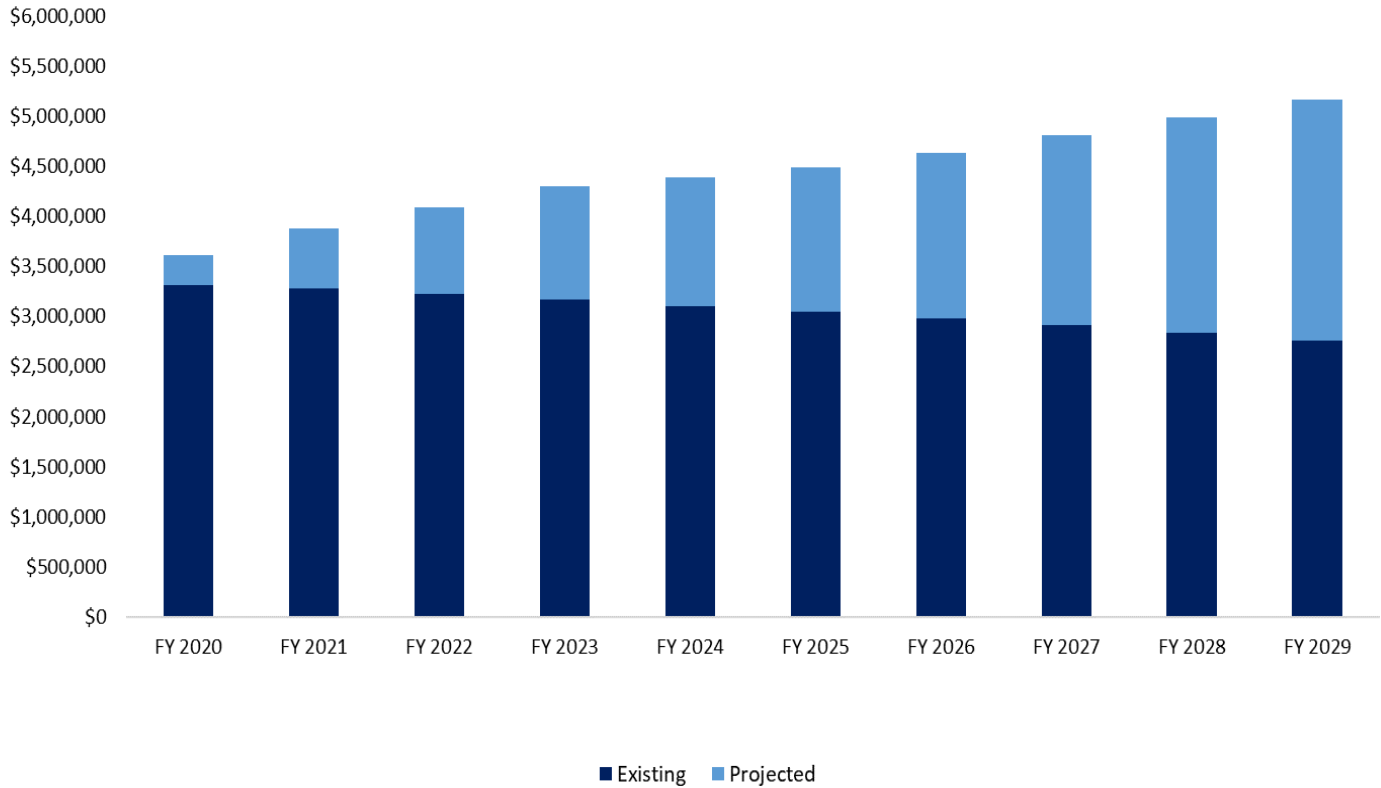
DC Water’s proposed rate increases are primarily required to fund increasing debt service costs from increased capital spending.

**CUMULATIVE CAPITAL SPENDING
FY 2020 – FY 2029
(\$000’s)**



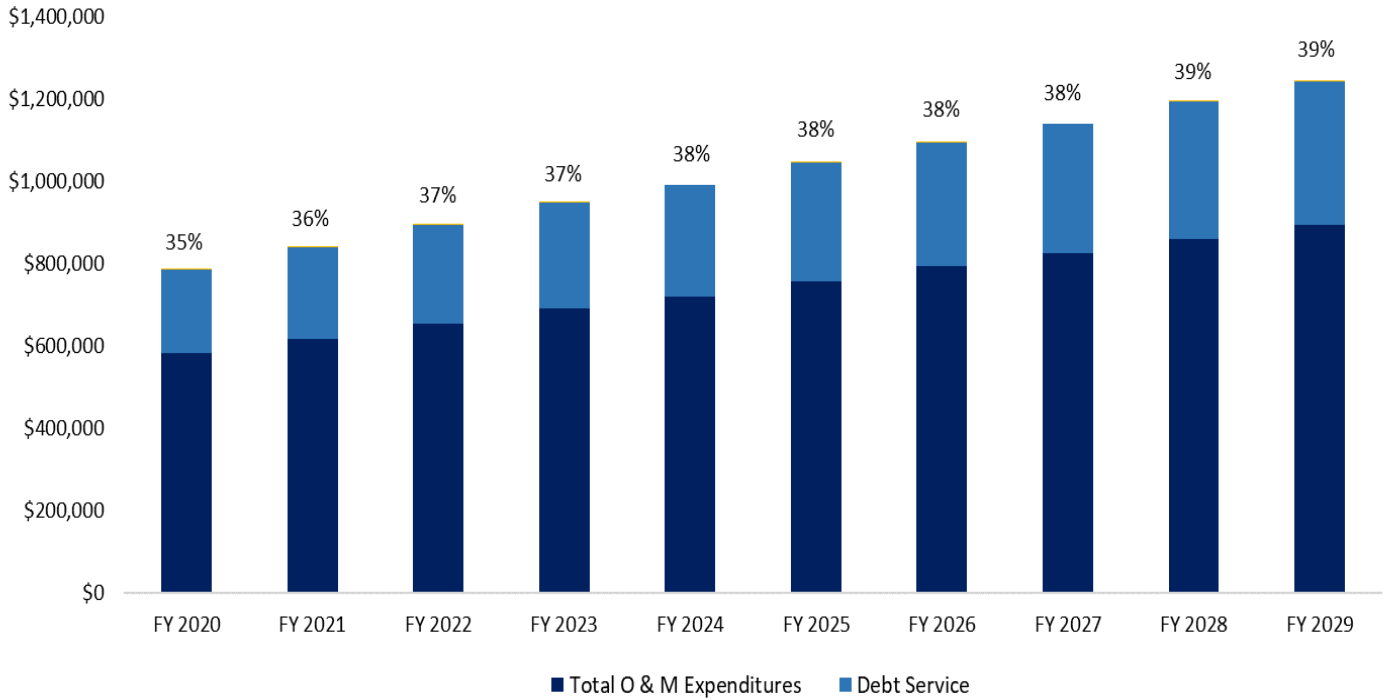
- DC Water’s ten-year capital improvement program totals \$5.45 billion, with annual spending ranging from \$438.2 million to \$650.0 million
- Once completed, the ten-year capital improvement project will double the book value of DC Water’s infrastructure
- The ten-year plan includes disbursements of the Clean Rivers Project (CSO LTCP), totaling nearly \$1.20 billion exclusive of nine minimum controls
- Water and sewer infrastructure continues to drive the ten-year Capital Improvement Plan from FY 2020 through FY 2029

NEW & EXISTING DEBT OUTSTANDING FY 2020 – FY 2029 (\$000's)

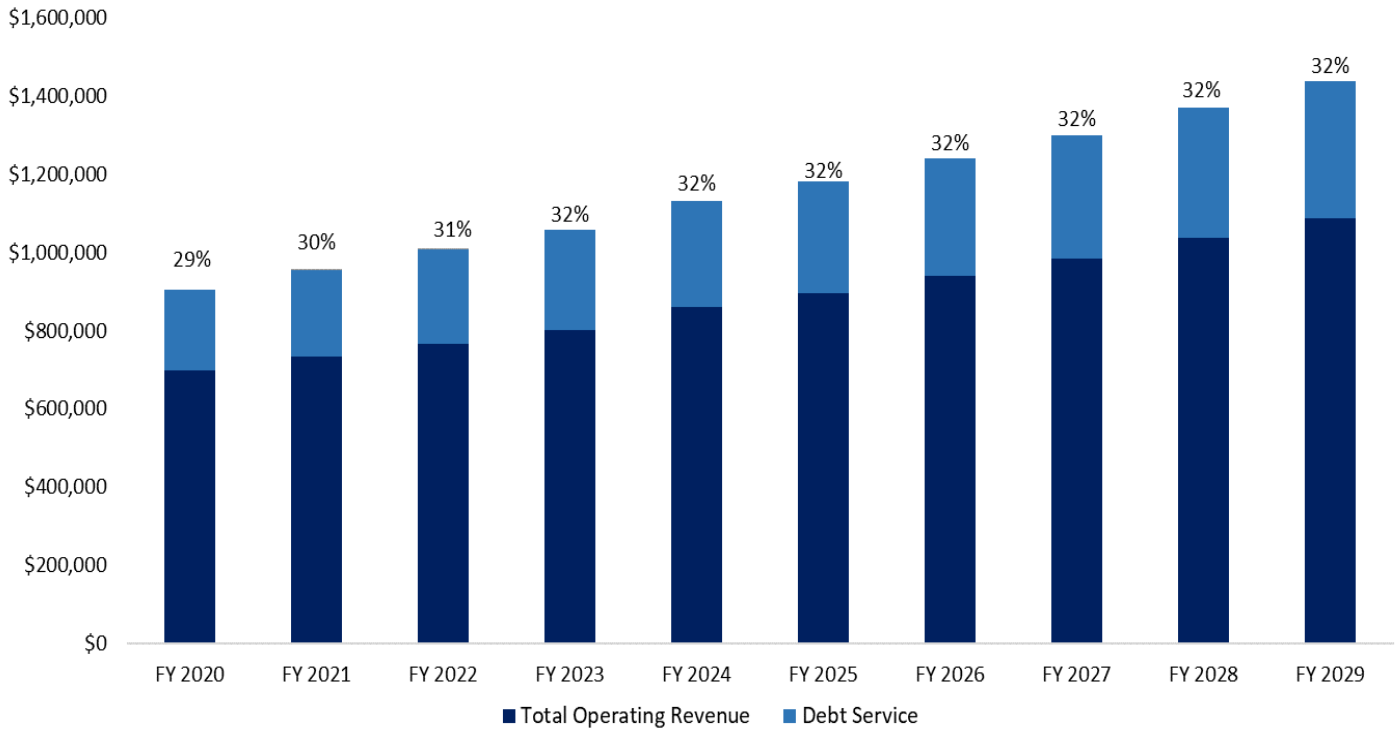


- The largest source of funding for DC Water’s capital program is debt
- Over the next ten years, DC Water will issue approximately \$2.4 billion in new debt (which includes the funding of reserves and costs of issuance), increasing total debt outstanding to \$5.2 billion at the end of FY 2029

DEBT SERVICE AS PERCENT OF TOTAL OPERATING & MAINTENANCE EXPENDITURES FY 2020 – FY 2029 (\$000's)



DEBT SERVICE AS PERCENT OF TOTAL OPERATING REVENUES FY 2020 – FY 2029 (\$000's)



OPERATING & DEBT SERVICE EXPENDITURES

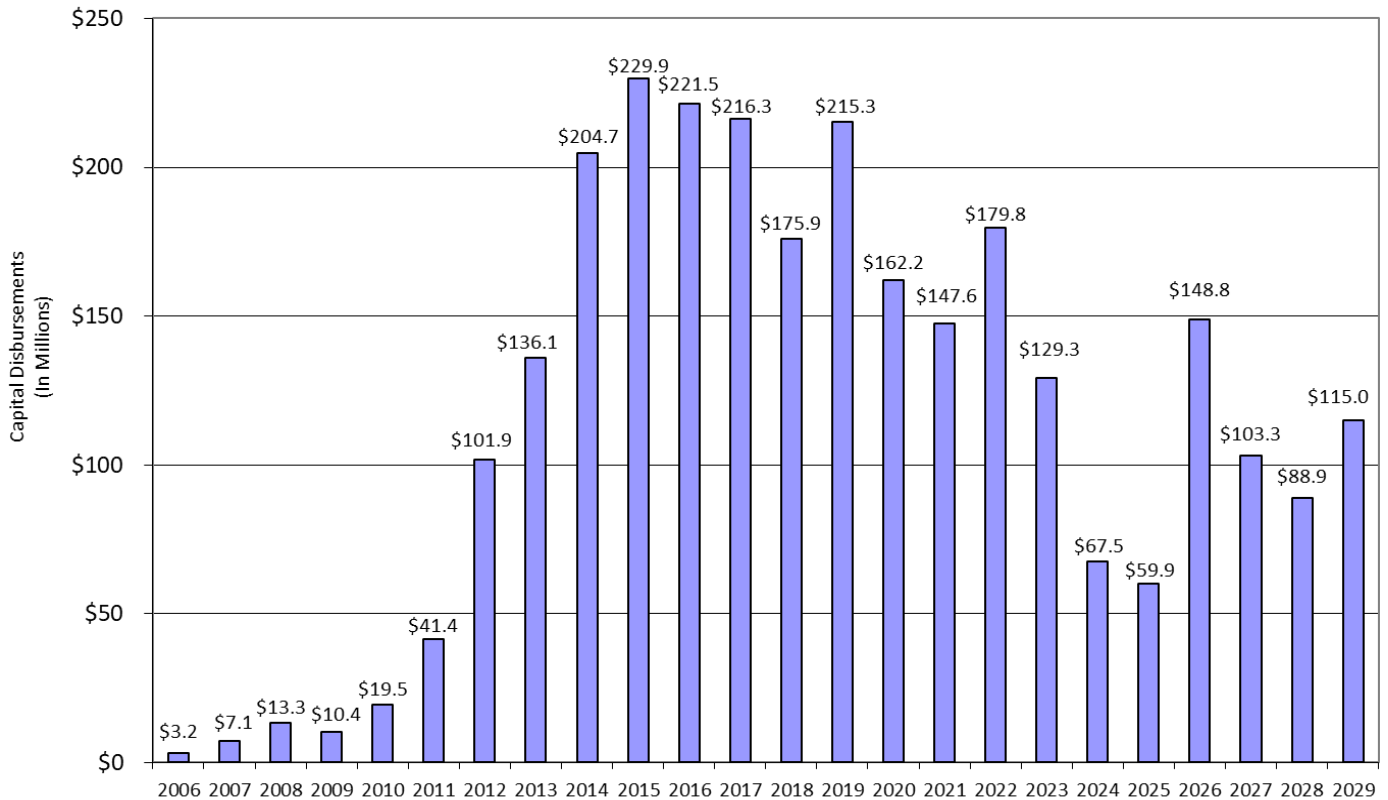
FY 2020 – FY 2029

Over the ten-year period, total expenditures increase on average by 4.5 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 3.3 percent annually
- Debt service expenditures grow at an annual average rate of 6.1 percent
- This year’s ten-year plan reflects increases in operating and maintenance and increases in debt service costs associated with DC Water’s Capital Improvement Program (CIP)

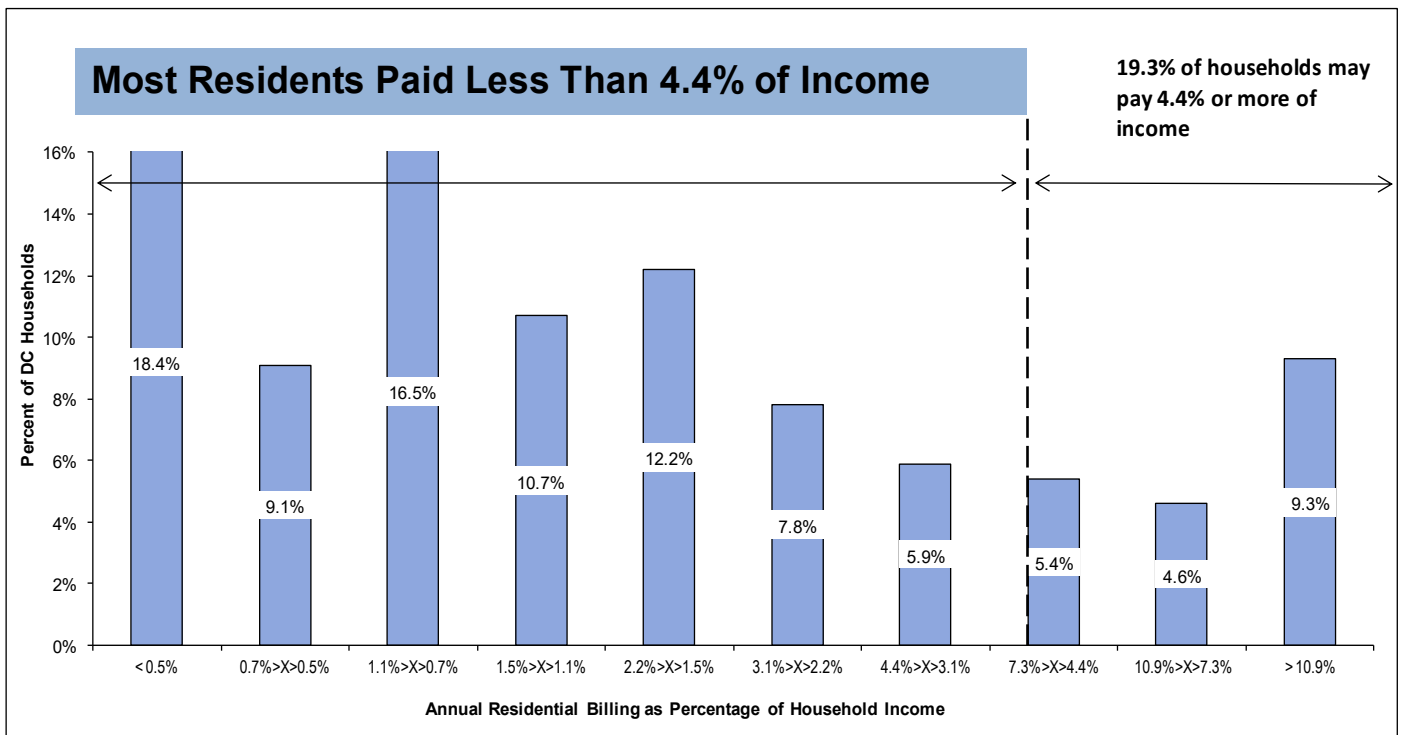
POTENTIAL IMPACT OF CSO LONG-TERM CONTROL PLAN ON RATES

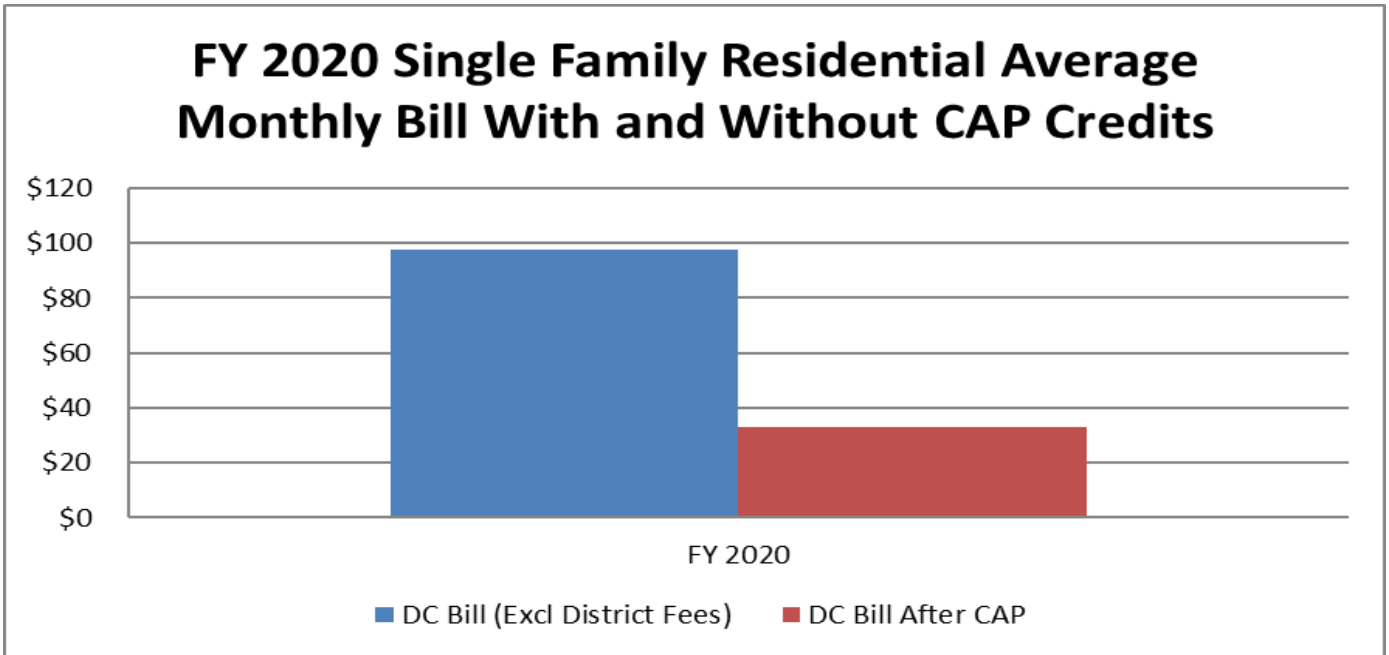


In December 2004, the Board reached an agreement with the federal government on the Clean Rivers Project (CSO-LTCP) and entered into a related consent decree. Actual and projected disbursements by fiscal year for the Clean Rivers Project are shown in the chart above and are the drivers for changes in 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, 2019, \$260.8 million has been received through federal appropriations. Lifetime capital costs for the plan (exclusive of the nine – minimum controls program) total approximately \$2.8 billion, and this year’s proposed ten-year plan includes \$1.20 billion of projected Clean Rivers Project disbursements.

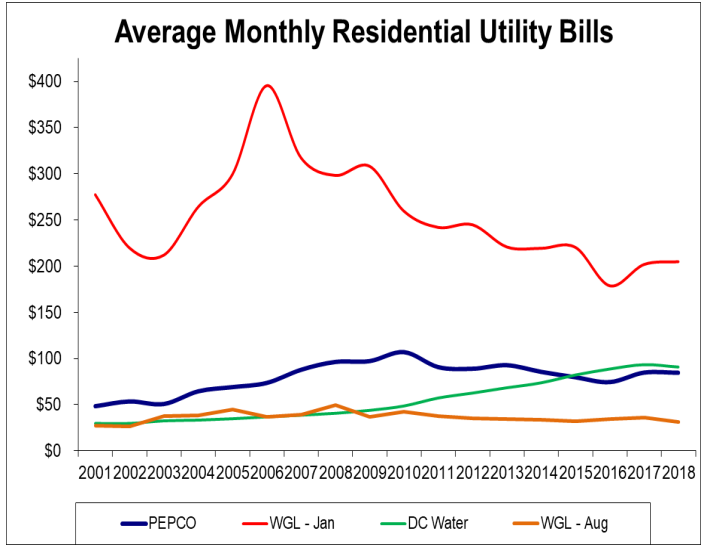
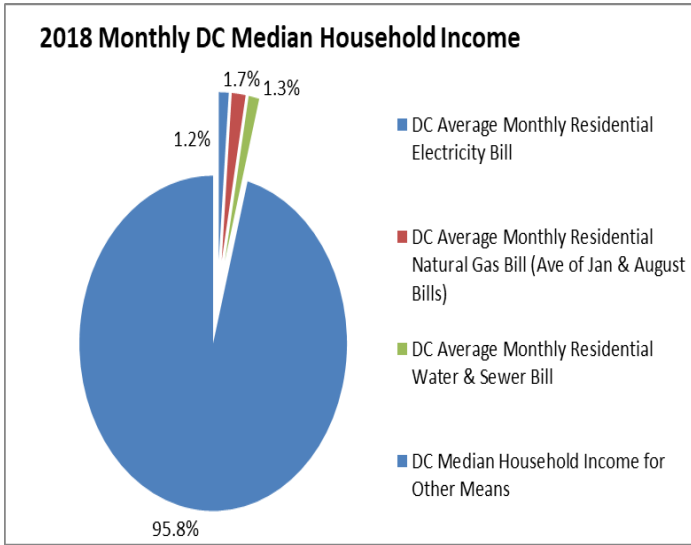
DC WATER CHARGES ARE STILL AFFORDABLE AND COMPETITIVE WITH OTHER MAJOR CITIES

- Median household income:** The average DC Water charges are less than 4.4% of income for 80.7% 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)
- Customer Assistance Programs** are in place to help eligible low income customers with their water/sewer bills





- After CAP credits, a family of 4 at the 2019 Federal Poverty level spends 1.5 percent of income on DC Water Bills



Observation:

- DC Water’s average monthly residential water & sewer bill is about 1.3 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 natural gas is higher than water & sewer bills

Assumption:

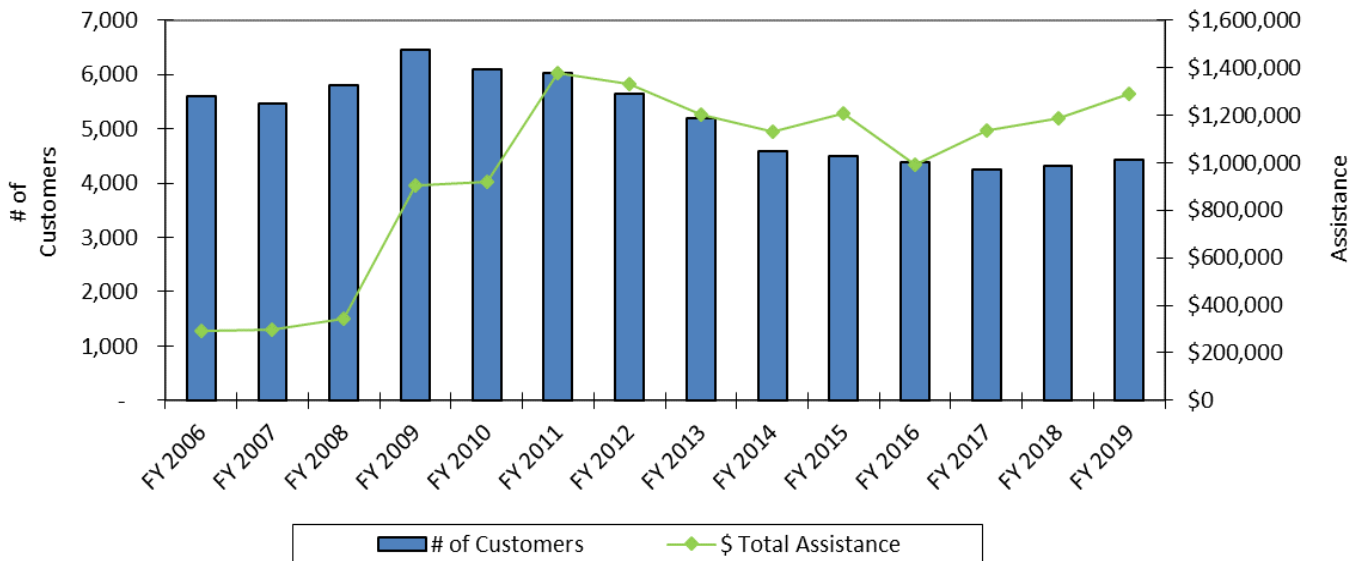
- Average DC customer is assumed to use 5.42 Ccf of water in 2018, 200 Therms of natural gas and 700 kWh of electricity per month in 2017

Source
 Electricity and Gas: DC Public Service Commission
 Water and Sewer: DC Water Assuming 5.42 Ccf, or 4,054 gallons consumption
 Median HH Income: US Census Bureau, American Community Survey 2017 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 (WSRF). In FY 2017, the Authority further expanded the CAP to include 50 percent discount for CRIAC. In FY 2018, the District of Columbia’s Budget Support Act authorized the Mayor to establish a financial assistance program to assist residential customers with incomes “not exceeding 100 percent of the area median income” with payment of CRIAC and to supplement the financial assistance programs implemented by DC Water. In FY 2020, the Board approved the increase in CRIAC discount for CAP customers from 50 percent to 75 percent effective from FY 2021. In FY 2019, CAP assisted over 4,436 customers and provided \$1,290,797 in discounts to low-income customers.

Customer Assistance Program

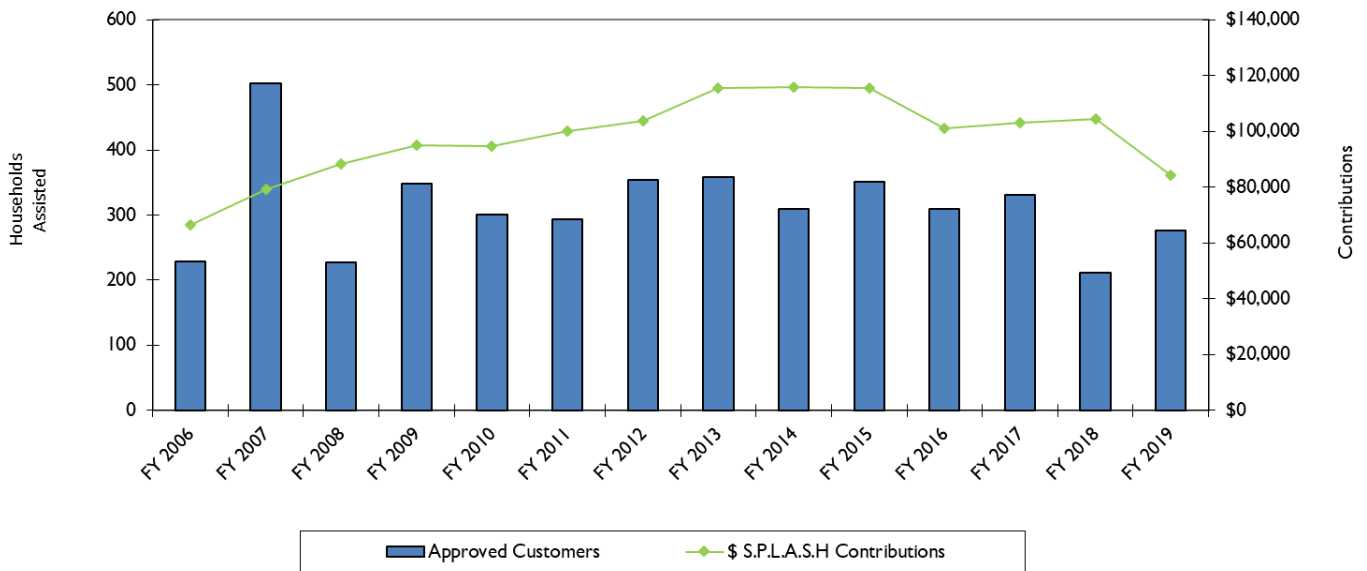


The following terms are defined:

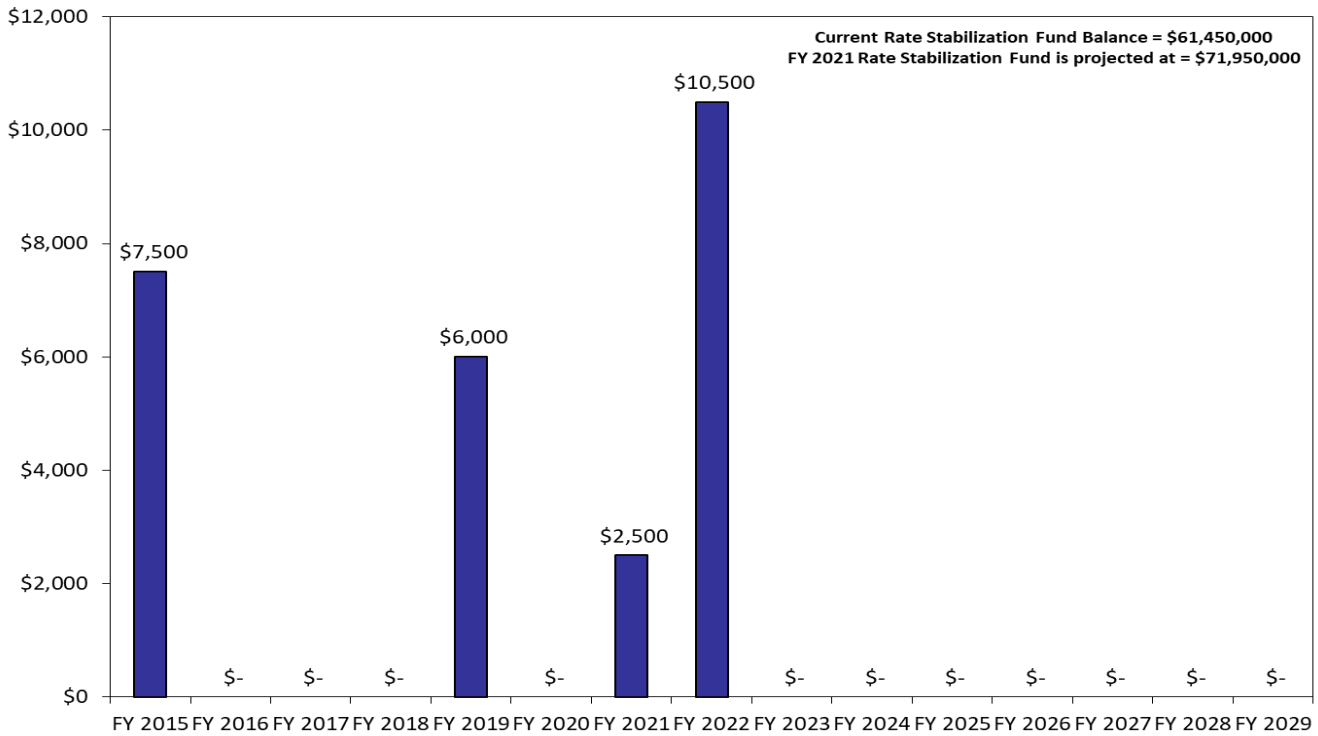
- **Customer Assistance Program (CAP)** – Existing program that uses LIHEAP (Low Income Home Energy Assistance Program) criteria to provide DC Water-funded discounts to low-income residential customers with incomes up to 60 percent of the State Median Income (SMI from Health and Human Services (HHS)). Eligible customers receive the first 4 Ccf of water and sewer services, PILOT and ROW, 100 percent discount for the Water System Replacement Fee (WSRF) and 50 percent discount for the CRIAC. On March 5, 2020, DC Water’s Board adopted a proposal to increase the maximum CRIAC IAC credit from 50 percent to 75 percent, effective October 1, 2020 (FY 2021).
- **Customer Assistance Program II (CAP2)** – In FY 2019, DC Water expanded the CAP program for low-income residential customers who do not qualify for CAP with household income up to 80 percent Area Median Income (AMI). Eligible customers receive a discount of up to 3 Ccf per month for water and sewer services and a 50 percent discount for CRIAC. On March 5, 2020, DC Water’s Board adopted a proposal to amend regulations to make the CAP2 program permanent.
- **Customer Assistance Program III (CAP3)** – New District-funded program to provide benefits to DC Water customers with household income greater than 80 percent and up to 100 percent Area Median Income (AMI) who do not qualify for CAP or CAP2. Eligible customers receive a 75 percent discount for CRIAC.
- **CRIAC (Clean Rivers Impervious Area Charge) Nonprofit Relief Program** – New District-funded program to provide CRIAC credits to nonprofit organizations as determined by the District Department of the Environment (DOEE). Eligible customers receive up to 90 percent discount for CRIAC.

- 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 2019, SPLASH assisted 276 households and provided \$84,427 in contributions to low-income customers.

S.P.L.A.S.H Program



RATE STABILIZATION FUND USAGE FY 2020 - FY 2029 (\$000's)



- At the end of FY 2019, DC Water’s rate stabilization fund (RSF) balance was \$61.45 million. As recommended to the Board, \$2.5 and \$10.5 million RSF will be utilized in FY 2021 and FY 2022 respectively to mitigate rate increases. No RSF is proposed to be utilized from FY 2023 to FY 2029. RSF will have a balance of \$61.45 million at the end of FY 2029.

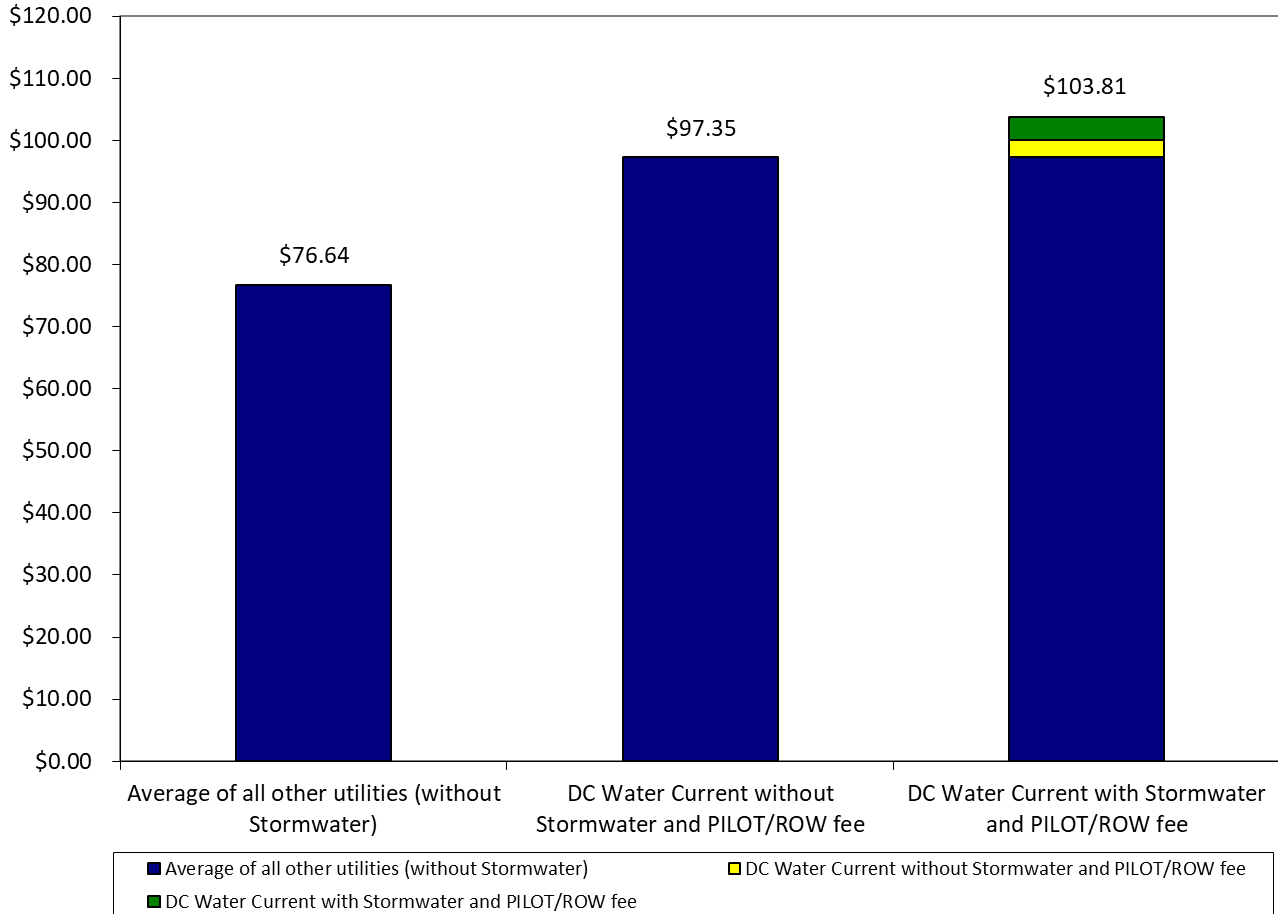
One method of assessing the affordability of residential rates is to calculate the portion of the Median Household Income that would be spent on typical water, wastewater, and stormwater bills and compare the results with the same calculation for other utilities. While no utilities are exactly alike, in the most recent rate survey conducted for DC Water in November 2019, DC Water’s charges for a single family residential customer as a percentage of median income, excluding District fees, were comparable to 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:

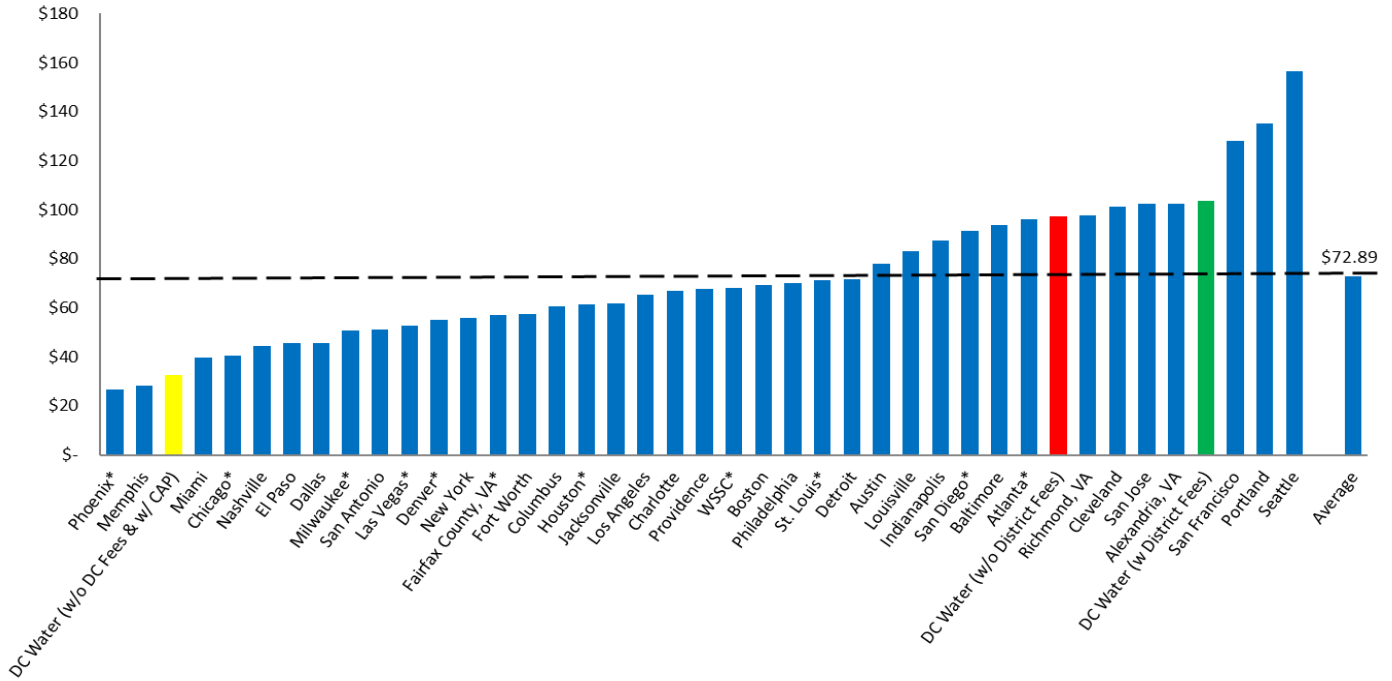
- Different patterns of water use (e.g., suburban jurisdictions can have different demands from urban centers)
- Revenues from taxes that reduce the revenues to be raised from water, sewer and stormwater rates (e.g., Arlington, Milwaukee, St. Louis, Atlanta, Chicago, etc.)
- Available undeveloped areas 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 2020 Monthly Residential Bill vs. Average Monthly Bill of Other Utilities in Effect Fall 2019



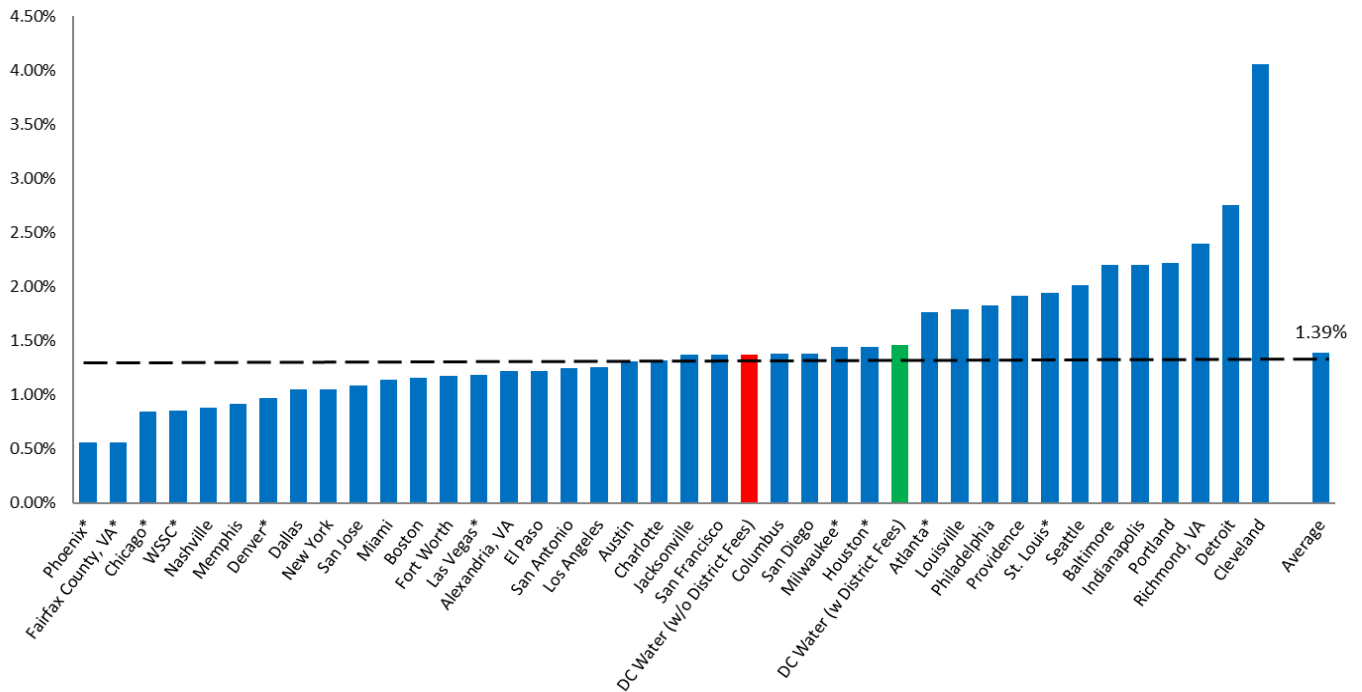
DC Water Retail Rates Compared to Other Large Utilities (Based on Rates in effect Fall 2019)



- (1) Assumes average residential consumption of 5,42 Ccf, or 4,054 gallons, per month. Ccf = hundred cubic feet, or 748 gallons
- (2) Reflects rates and fees in place as of November 1, 2019. The Authority's rate includes the PILOT/ROW fee totaling \$0.70 per Ccf (effective October 1, 2019) 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.

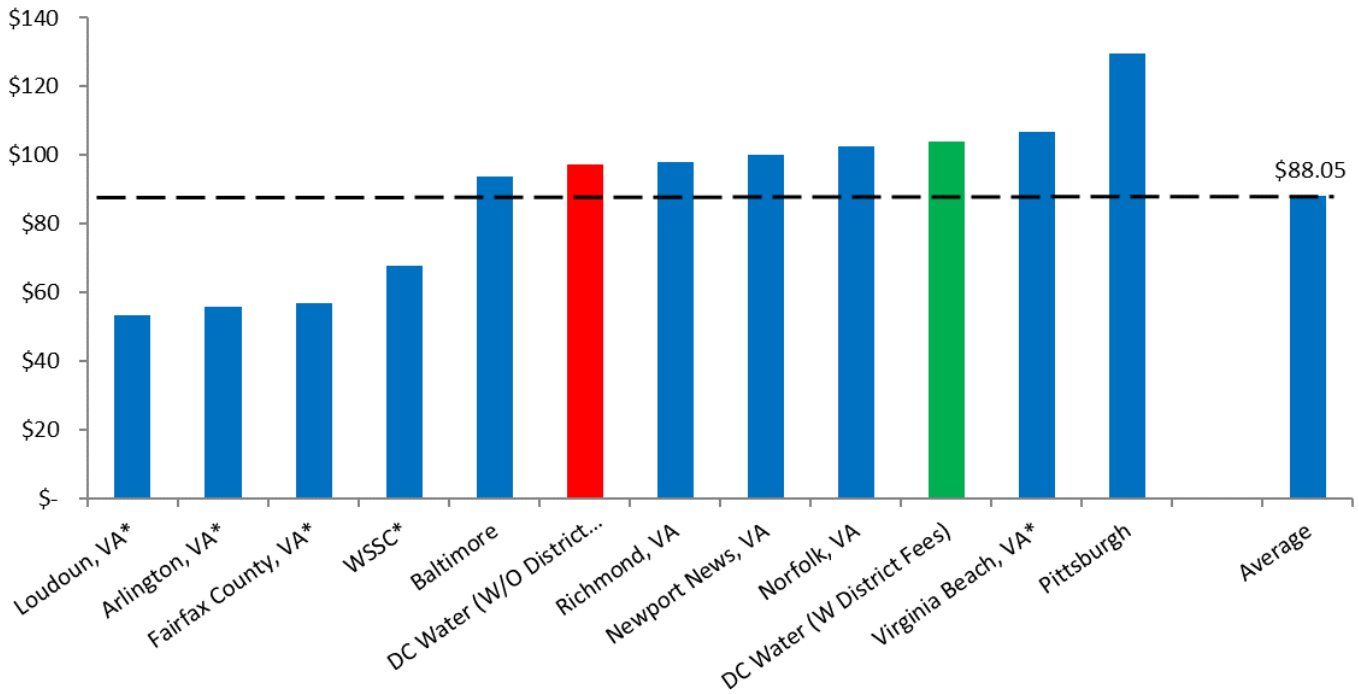
In the chart below, DC Water current charges rank at the median for bill comparison purposes for water and wastewater services compared to a select group of large, regional and CSO utilities, but well within US EPA guidance of 4 percent.

Single Family Residential (SFR) Monthly Bill as % of Median Household Income - Large National Utilities (Based on Rates in effect Fall 2019)



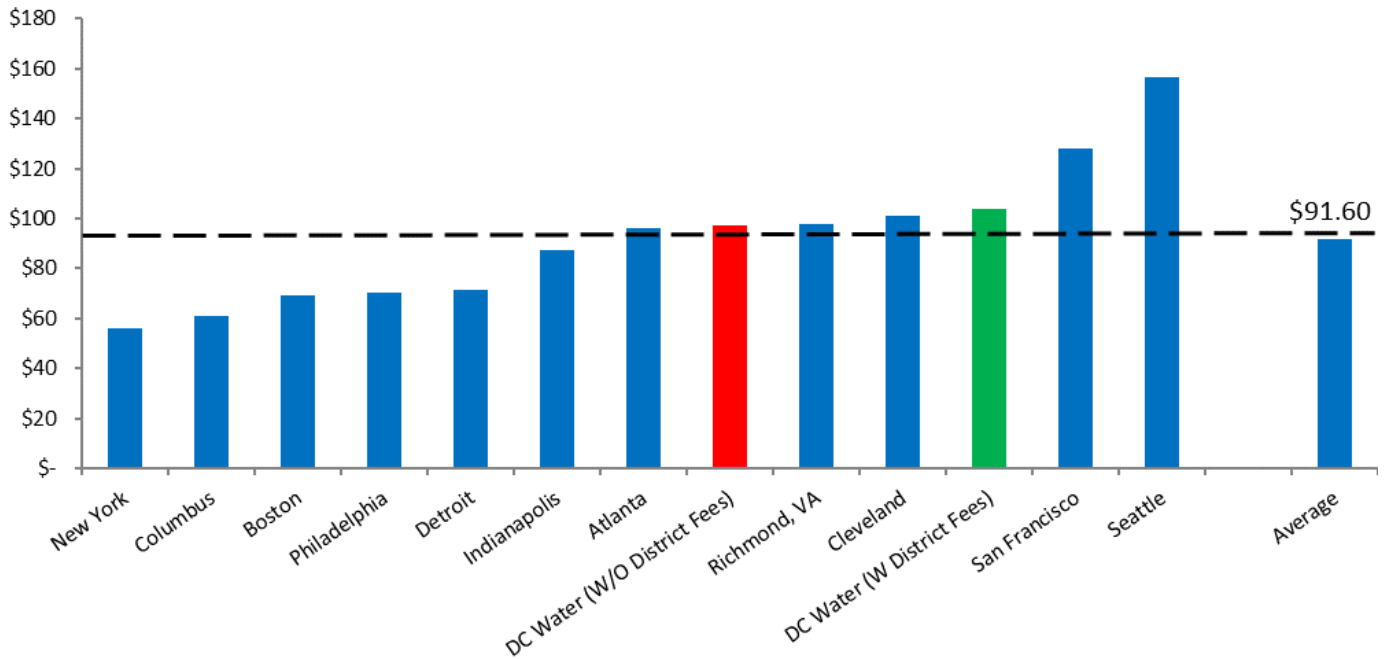
- 1) Assumes average residential consumption of 5.42 Ccf, or 4,054 gallons, per month. Ccf = hundred cubic feet, or 748 gallons
- 2) Reflects rates and fees in place as of November 1, 2019. The Authority's rate includes the PILOT/ROW fee totaling \$0.70 per Ccf (effective October 1, 2019) and the DOEE residential stormwater rate of \$2.67 per ERU per month. 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 Fall 2019)



- 1) Assumes average residential consumption of 5.42 Ccf, or 4,054 gallons, per month. Ccf = hundred cubic feet, or 748 gallons
- 2) Reflects rates and fees in place as of November 1, 2019. 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.

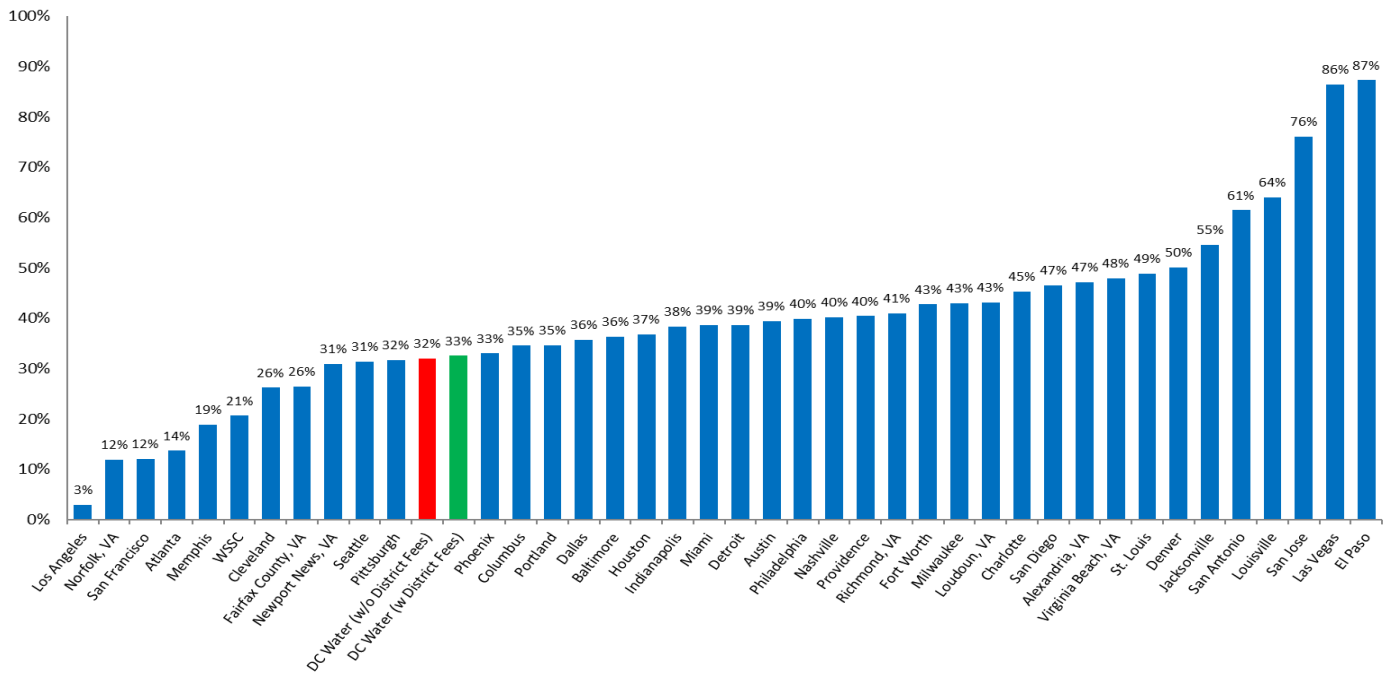
DC Water Compared to CSO Communities (Based on Rates in effect Fall 2019)



- 1) Assumes average residential consumption of 5.42 Ccf, or 4,054 gallons, per month. Ccf = hundred cubic feet, or 748 gallons.
- 2) Reflects rates and fees in place as of November 1, 2019. The Authority's rate includes the PILOT/ROW fee totaling \$0.70 per Ccf (effective October 1, 2019) and the DOEE 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

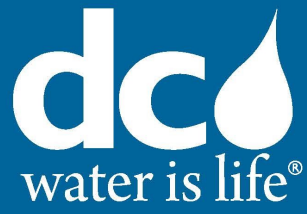
Fixed charges are a small component of the DC Water monthly bill and is less than median for large utilities. This provides the customer more opportunities to impact monthly bills through water conservation.

Fixed Charge as % of Total Single-Family Residential Bills in Large Cities (Based on Rates in effect Fall 2019)



- 1) User Charges are based upon information provided by the identified cities and standardized assumptions regarding water consumption, wastewater discharge, stormwater drainage area and other factors. Actual charges in each city will vary in accordance with local usage patterns. Some cities bill for sewer use on the basis of winter consumption which could affect sewer billings if a customer’s use was not uniform throughout the year. 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. In such situations, the user charges will not reflect the full cost of water, wastewater or stormwater services.
- 2) DC Water rate schedule was effective October 1, 2019. Whereas, charges for all cities reflect rate schedules in effect November 1, 2019
- 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

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Approved FY 2021 Budgets
Section V: CAPITAL PROGRAMS



Northeast Boundary
Tunnel Community Tour

(\$ in thousands)

FY 2019 Actual	FY 2020 - FY 2029 Disbursement Plan											Lifetime
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Budget
\$399,366	\$452,223	\$507,590	\$611,008	\$531,323	\$438,195	\$461,193	\$580,092	\$589,978	\$628,404	\$650,006	\$5,450,013	\$12,390,598



DC Water Headquarters



Bryant Street Pump Station



Blue Plains

Overview

DC Water’s Capital Improvement Program (CIP) supports the continuation of major capital asset investment in programs and projects that will upgrade the water distribution and sewer system as well as maintain compliance with federal mandates, and improve the efficiency of operations. The CIP includes all mandated projects, rehabilitation of assets required to meet permit and other regulatory requirements, and projects to meet the immediate needs necessary to maintain existing service levels.

The CIP is presented on two different basis; the ten-year disbursement plan and lifetime budget.

- Ten-Year Disbursement Plan** – This category represents the actual cash disbursements “cash out of the door” for each project, excluding contingencies. It provides a more realistic approach and basis for forecasting the anticipated level of rate increases, as well as, timing for pursuing capital financing. In addition, the ten-year disbursement plan includes projected completion dates, program management, and in-house labor costs.
- Lifetime Budget** – The “lifetime” budget, reflects historical spending prior to, during, and beyond the current ten-year period, including in-house labor. Lifetime budgets represent projects active during the ten-year period, and are the primary area of focus in budget development and day-to-day monitoring. In addition to “active” projects, the lifetime budget includes projects for which all activities have been completed during the previous fiscal year and are listed as “closed” in the CIP. Closed projects are dropped from the CIP in the next fiscal year, and new projects are continuously added, as needed, each 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. The Department of Engineering & Technical Services conducts a review of major accomplishments, priorities, status of major projects, and emerging regulatory and related issues impacting the capital program. The review process is a collaborative effort, and involves departments with responsibility for managing the operations of DC Water services and capital projects; staff from the department of Finance; and members of the Executive Team. The CIP is integrated into DC Water’s ten-year financial plan; and is the primary driver of DC Water’s projected rate increases over the ten-year planning period.

This review process spans over several months and culminates with the presentation of the CIP to DC Water’s Board of Directors’ Environmental Quality and Operations; Finance and Budget; and DC Retail Water and Sewer Rates Committees in January. The operating budgets, capital improvement program, and ten-year financial plan were adopted by the full Board on March 5, 2020.

After adoption by the Board of Directors, DC Water is required to submit its annual operating and ten-year capital budgets 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 service areas may vary up or down for a particular year. However, they are “not to exceed the total” FY 2020 – FY 2029 capital authority request in the amount of \$5.0 billion.

It should be noted that the execution of contracts require the approval of the CEO and 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 its projected useful life and the policy determines how projects will be financed.

DEFINITION:

- Capital Project – an average life of 30 years and is financed with long-term debt
- Capital Equipment – has a life of at least three years, is financed with short-term debt or cash, an individual component cost of \$5,000 or more. The cost of capital equipment purchases that are part of a clearly identified capital program can be aggregated. In which case, capitalize all cost relating to the capital program at the project level regardless of the individual component amount.

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

Expenditure Type	Financial Treatment	Definition
Rehabilitation		
Enhancement	Capitalize	Addition/replacement of a sub-component of an asset, to improve the “attributes” of the asset. This will include all such work as valve replacement or replacement of a section of a pipe.
Refurbishment	Capitalize	Expenditure on an asset that creates a material extension to the Estimated Operating Life (EOL) of the asset. 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. An example of refurbishment would be pipe lining and pipe grouting.
Rebuild	Capitalize	Expenditures to reconstruct, renovate, remodel, remake or reassemble an asset or infrastructure after it has been damaged or destroyed. An example of a rebuild is a valve rehabilitation, reconstruction of the valve elements
Replacement	Capitalize	Expenditure to replace substantially all of an asset. An example is replacement and installation of a new pipe including the ensuing disinfection applications and all associated activities relating to the replacement
Repair	Expense	Expenditure on an asset that maintains or restores the design functionality or attributes of an asset, enabling the asset to perform its intended function during its EOL. Examples of these will include service line repairs such as clamp application on service pipes, bolt application/replacement/adjustment, small scale chemical applications such as use of dechlorinating tablets, meter shut off valve, curb stop, small service line repairs that does not involve replacement nor meter housing, high pressure jet vacuum or any other obstruction removal methodology
Maintenance	Expense	Scheduled and recurring costs for the continued performance of an asset



Capital Improvement Program

summary overview financial plan rates&rev

capital

departmental

glossary

(\$ in thousands)

	FY 2019 Actual	FY 2020 - FY 2029 Disbursement Plan											Lifetime Budget			
		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total				
NON PROCESS FACILITIES																
Facility Land Use	\$8,529	\$42,066	\$31,849	\$20,665	\$6,831	\$11,058	\$10,396	\$3,901	\$3,553	\$3,600	\$3,600	\$137,479	\$221,841			
Subtotal	\$8,529	\$42,066	\$31,849	\$20,665	\$6,831	\$11,058	\$10,396	\$3,901	\$3,553	\$3,600	\$3,600	\$137,479	\$221,841			
WASTEWATER TREATMENT																
Liquid Processing	\$18,101	\$24,516	\$42,496	\$43,069	\$48,748	\$44,909	\$31,792	\$66,989	\$68,544	\$103,740	\$103,740	\$574,216	\$1,266,857			
Plantwide	\$10,357	\$17,387	\$32,784	\$42,213	\$30,735	\$37,879	\$23,127	\$18,231	\$25,062	\$9,902	\$9,902	\$257,826	\$525,997			
Solids Processing	\$5,493	\$19,847	\$27,314	\$27,424	\$25,852	\$22,754	\$15,761	\$12,658	\$6,027	\$12,858	\$12,858	\$180,971	\$924,507			
Enhanced Nitrogen Removal Facilities	\$19,176	\$15,786	\$382	\$672	\$1,897	\$1,770	\$0	\$0	\$2,206	\$1,861	\$1,665	\$36,239	\$980,940			
Subtotal	\$53,127	\$77,536	\$102,976	\$113,378	\$107,232	\$107,312	\$70,680	\$97,878	\$101,839	\$138,165	\$138,165	\$1,049,252	\$3,698,301			
COMBINED SEWER OVERFLOW																
DC Clean Rivers Program	\$215,335	\$162,197	\$147,565	\$179,833	\$129,272	\$67,536	\$59,909	\$148,771	\$103,265	\$88,890	\$115,049	\$1,202,288	\$2,764,255			
Combined Sewer Program Management	\$2,062	\$1,287	\$1,792	\$2,237	\$2,972	\$3,028	\$2,050	\$2,629	\$2,515	\$3,125	\$2,519	\$24,154	\$77,756			
Combined Sewer Overflow Program	\$4,355	\$7,952	\$7,701	\$10,579	\$13,581	\$13,703	\$6,518	\$4,070	\$5,057	\$5,847	\$9,916	\$84,924	\$199,729			
Subtotal	\$221,752	\$171,436	\$157,058	\$192,649	\$145,824	\$84,267	\$68,476	\$155,470	\$110,837	\$97,863	\$127,484	\$1,311,366	\$3,041,740			
STORMWATER																
Storm Local Drainage Program	\$0	\$12	\$22	\$688	\$594	\$1,267	\$1,948	\$1,164	\$1,792	\$1,970	\$1,709	\$11,166	\$18,025			
Storm On-Going Program	\$893	\$1,011	\$631	\$1,109	\$837	\$866	\$526	\$875	\$843	\$1,084	\$1,287	\$9,069	\$11,540			
Storm Pumping Facilities	\$1,283	\$5,310	\$8,392	\$4,923	\$2,259	\$2,854	\$1,865	\$1,698	\$1,353	\$3,430	\$1,755	\$33,839	\$61,204			
Storm DDOT Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,237			
Stormwater Program Management	\$0	\$410	\$445	\$582	\$367	\$405	\$321	\$464	\$318	\$385	\$306	\$4,003	\$12,889			
Stormwater Trunk/Force Sewers	\$33	\$126	\$141	\$233	\$113	\$0	\$0	\$0	\$0	\$0	\$0	\$613	\$15,510			
Subtotal	\$2,210	\$6,869	\$9,631	\$7,535	\$4,170	\$5,392	\$4,660	\$4,201	\$4,306	\$6,869	\$5,057	\$58,690	\$122,404			
SANITARY SEWER																
Sanitary Collection System	\$4,584	\$4,613	\$8,134	\$33,564	\$18,009	\$24,312	\$33,040	\$52,923	\$68,745	\$65,771	\$61,043	\$370,154	\$569,040			
Sanitary On-Going Projects	\$11,385	\$12,099	\$12,327	\$13,711	\$13,667	\$14,185	\$15,019	\$15,253	\$15,111	\$15,312	\$14,842	\$141,529	\$217,969			
Sanitary Pumping Facilities	\$926	\$2,570	\$5,995	\$6,924	\$8,240	\$5,068	\$10,468	\$11,639	\$11,933	\$27,732	\$33,628	\$124,196	\$270,778			
Sanitary Program Management	\$2,614	\$4,150	\$5,464	\$7,014	\$5,132	\$3,913	\$3,103	\$3,174	\$3,900	\$4,064	\$4,335	\$44,250	\$119,050			
Interceptor/Trunk Force Sewers	\$16,715	\$21,501	\$32,006	\$54,327	\$43,062	\$44,084	\$76,710	\$76,826	\$77,100	\$62,993	\$60,184	\$548,794	\$918,096			
Subtotal	\$36,224	\$44,933	\$63,926	\$115,541	\$88,110	\$91,562	\$138,341	\$159,814	\$176,789	\$175,873	\$174,032	\$1,228,922	\$2,094,934			
WATER																
Water Distribution Systems	\$22,378	\$33,872	\$60,464	\$62,606	\$65,093	\$58,654	\$64,372	\$65,350	\$99,075	\$117,595	\$121,131	\$748,211	\$1,446,953			
Water Lead Program	\$4,099	\$4,711	\$5,408	\$5,387	\$5,456	\$5,627	\$5,719	\$5,496	\$5,744	\$5,877	\$5,692	\$55,117	\$243,504			
Water On-Going Projects	\$8,293	\$10,532	\$11,075	\$12,297	\$13,351	\$15,199	\$16,789	\$18,583	\$20,447	\$22,981	\$23,506	\$164,761	\$217,972			
Water Pumping Facilities	\$473	\$1,525	\$2,650	\$12,169	\$6,284	\$2,567	\$4,218	\$7,446	\$4,163	\$2,328	\$0	\$43,350	\$85,344			
DDOT Water Projects	\$324	\$1,721	\$10	\$8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,739	\$33,933			
Water Storage Facilities	\$5,298	\$6,216	\$4,318	\$10,399	\$13,963	\$5,610	\$4,783	\$11,334	\$8,985	\$694	\$1,360	\$67,662	\$155,164			
Water Service Program Management	\$4,445	\$3,587	\$4,752	\$6,012	\$4,854	\$5,248	\$5,884	\$8,110	\$8,376	\$5,441	\$3,008	\$55,272	\$90,944			
Subtotal	\$45,310	\$62,163	\$88,677	\$108,878	\$109,000	\$92,905	\$101,765	\$116,319	\$146,791	\$154,697	\$154,697	\$1,136,112	\$2,273,813			
CAPITAL PROJECTS	\$367,152	\$405,004	\$454,118	\$558,645	\$461,168	\$392,496	\$394,318	\$537,584	\$544,115	\$571,337	\$603,035	\$4,921,821	\$11,453,035			
CAPITAL EQUIPMENT	\$21,367	\$31,703	\$37,207	\$33,790	\$32,315	\$33,000	\$33,000	\$33,000	\$33,000	\$33,000	\$33,000	\$333,015	\$333,015			
WASHINGTON AQUEDUCT	\$10,847	\$15,515	\$16,266	\$18,572	\$37,841	\$12,699	\$33,875	\$9,508	\$12,863	\$24,068	\$13,971	\$195,178	\$195,178			
ADDITIONAL CAPITAL PROGRAMS	\$32,215	\$47,218	\$53,473	\$52,362	\$70,156	\$45,699	\$66,875	\$42,508	\$45,863	\$57,068	\$46,971	\$528,193	\$528,193			
LABOR																
TOTAL CAPITAL BUDGETS	\$399,366	\$452,223	\$507,590	\$611,008	\$531,323	\$438,195	\$461,193	\$580,092	\$589,978	\$628,404	\$650,006	\$5,450,013	\$12,390,598			



Capital Improvement Program

(\$ in thousands)

Prioritization Schedule

The Authority evaluates and prioritizes capital projects based on a specific criteria. These criterias are fundamental in developing a CIP based on demonstrated needs and are set forth in the following table and described below.

Approximately 22 percent of the current CIP ten-year disbursements are for large regulatory mandates which includes the Clean Rivers Project. As we progress closer to the completion of the mandated projects, DC Water is able to increase investments in upgrading its aging water and sewer infrastructure, starting FY 2022 and beyond.

		MEASURE OF PRIORITY								
		1A	2A	2B	2C	2D	3A		3B	
		Mandates	Health & Safety	Board Policy	Potential Failure	High Profile Good Neighbor	Good Engineering High Payback	Good Engineering Lower Payback		
		Agreements, Regulatory standards, Court orders, Issues and Permits requirements, Stipulated Agreements, Etc.	Required to address Public Safety	Undertaken as a result of the Board's commitment to outside agencies	Related to Facilities in danger of failing, or critical to meeting permit requirements	Address Public concerns	Need to fulfill Mission and upgrade Facilities	Lower priority Projects		
FY 2020	\$174,384	39%	\$4,332	\$63,844	\$46,024	\$2,280	\$93,140	21%	\$68,219	\$452,223
FY 2021	\$147,209	29%	\$5,490	\$72,762	\$36,214	\$821	\$142,529	28%	\$102,565	\$507,590
FY 2022	\$179,572	29%	\$12,019	\$59,755	\$51,167	\$5,403	\$190,052	31%	\$113,041	\$611,008
FY 2023	\$129,073	24%	\$9,469	\$53,835	\$62,807	\$2,504	\$149,979	28%	\$123,655	\$531,323
FY 2024	\$67,830	15%	\$18,917	\$41,514	\$26,156	\$603	\$147,226	34%	\$135,949	\$438,195
FY 2025	\$60,177	13%	\$19,230	\$46,213	\$29,409	\$1,509	\$197,153	43%	\$107,503	\$461,193
FY 2026	\$148,771	26%	\$13,180	\$49,037	\$28,074	\$3,131	\$194,990	34%	\$142,909	\$580,092
FY 2027	\$103,265	18%	\$6,062	\$83,507	\$28,766	\$105	\$215,227	36%	\$153,045	\$589,978
FY 2028	\$88,890	14%	\$717	\$99,437	\$37,312	\$0	\$214,960	34%	\$187,088	\$628,405
FY 2029	\$115,049	18%	\$1,803	\$104,227	\$24,027	\$0	\$214,327	33%	\$190,574	\$650,007
Total	\$1,214,221		\$91,219	\$674,131	\$369,956	\$16,356	\$1,759,583		\$1,324,547	\$5,450,013
% of Total	22.3%		1.7%	12.4%	6.8%	0.3%	32.3%		24.3%	

(\$ in thousands)

FY 2019 Actual	FY 2020 - FY 2029 Disbursement Plan											Lifetime Budget
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	
\$8,529	\$42,066	\$31,849	\$20,665	\$6,831	\$11,058	\$10,396	\$3,901	\$3,553	\$3,560	\$3,600	\$137,479	\$221,841



DC Water Headquarters



Main Pumping Station



Fleet Maintenance Facility

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, storage, distribution, and transportation
- 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 AREAS

Facility Land Use – The primary objective of this service area is to implement the NPFMP, and to ensure that we are meeting the health & hygiene needs of our workforce while efficiently maintaining facilities for our operations. Projects that generally improve DC Water’s facilities do not represent a core process area within DC Water’s mission, but they directly contribute to the health and well-being of our employees and visitors. Some of the projects included in this program are:

- **Headquarters Building** – The DC Water Administrative Headquarters Building, located next to the historic Main Pumping Station, is DC Water’s most sustainable construction project ever. The Headquarters anchor DC Water’s new publicly-accessible campus along the Anacostia River. By relocating non-operational departments to the new headquarters in FY 2019 from the Blue Plains industrial campus, DC Water preserved what little remaining space exists – an irreplaceable commodity – for future process improvements if required by permit or desired for innovation.
- **Floatable Debris Dock Replacement** – 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. Costs associated with the acquisition of new land and construction of new facilities will be paid by the District of Columbia, with a completion target of 2022 for both facilities.
- **Renovations to Blue Plains Central Operations Facility** – The 2013 NPFMP called for utilizing the Central Operations Facility as the operations center for Blue Plains as originally intended, consolidating all Engineering staff except Clean Rivers. In addition to efficiently organizing the space vacated by Administrative personnel now located at Headquarters Building, this project consists of identifying a range of potential tasks, such as structural/building envelope analysis, energy efficiency and resiliency upgrades, and improved space planning and document storage that will modernize and improve operations at the facility.
- **Renovations to Bryant Street Campus** – The 2013 NPFMP required the development of improved spaces for our Water Operations and expanding critical functions through the development of a proper Emergency Operations Center (EOC), while maintaining the Bryant Street Pump Station’s historic character. In addition to efficiently organizing the space vacated by personnel now located at HQO, this project consists of identifying a range of potential tasks, such as structural/building envelope analysis, energy efficiency and resiliency upgrades, and improved space planning and document storage that will modernize and improve operations at the Bryant Street campus.

- **Non-Process Heating, Ventilation, and Air Conditioning (HVAC) and Roofing Projects** – This project is meant to holistically address some of the HVAC and roofing/building envelope challenges that exist throughout DC Water facilities. This will include undertaking proper analysis of our needs given the characterization of the space (occupied versus non-occupied for example) and then developing remediation and renovation plans as identified by the assessment. The initial analysis is coming from the BluePrint Health & Hygiene initiative, and then we will look to implement a proactive plan moving forward taking into account the proper lifecycle costs of these assets to ensure that our facilities meet the needs of our operations and workforce.

ACCOMPLISHMENTS

- The Headquarters Building is now complete and occupied, and it has received the following awards:
 - American Institute of Architects (AIA) – Northern Virginia Chapter – Juror’s Citation in Conceptual/Unbuilt Architecture
 - American Institute of Architects (AIA) – Maryland Chapter – Jury Citation Award
 - Fast Company Innovation by Design – Spaces, Places and Cities – Honorable Mention
- The design stage for the new Fleet Service Facility and Sewer Services Field Operations Center has been completed and is undergoing permitting reviews
- DC Water is in the schematic design / program development phase for the renovations of Central Operations Facility and Bryant Street
- Facilities is working in coordination with Procurement on a new A/E basic ordering agreement contract for program management, design and construction management services to support land use and non-process capital projects.

OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS

Headquarters Building – This new building is LEED® Platinum Class A certified, and incorporated environmentally sustainable features used to capture onsite rainfall 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.

Non Process Facilities

FACILITY LAND USE		Start	Status	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
DS	New Headquarters Building	2008	Ongoing	\$4,656	\$3,255	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,255	\$76,100	2022
DU	Water System Laboratory Facilities	2006	Ongoing	\$19	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$646	2022
HE	Bryant Street Pump Station Building Mod.	2018	Ongoing	\$1	\$2,477	\$3,334	\$7,527	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,338	\$14,370	2022
HF	Fort Reno Pump Station	2020	Ongoing	\$0	\$0	\$667	\$1,679	\$28	\$0	\$0	\$0	\$0	\$0	\$0	\$2,374	\$2,950	2022
HH	Main & O Redevelopment Efforts	2015	Ongoing	\$3,842	\$30,598	\$12,195	\$219	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$43,012	\$50,040	2023
HJ	Central Operations Facility Renovation	2019	Ongoing	\$11	\$2,500	\$3,295	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,795	\$12,904	2021
HK	CMF Renovations And Consolidation	2020	Ongoing	\$0	\$1,700	\$1,002	\$1,100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,802	\$3,500	2023
NZ	Floatable Debris Dock Replacement	2020	Ongoing	\$0	\$1,036	\$1,850	\$2,140	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,026	\$1,332	2022
RV	Non-Process Area - HVAC And Roofing Projects	2020	Ongoing	\$0	\$500	\$2,006	\$2,000	\$1,803	\$2,058	\$3,896	\$3,401	\$3,553	\$3,560	\$3,600	\$26,377	\$28,000	2027
SA	Anacostia Pump Station - Field Ops East	2025	New	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500	\$500	\$0	\$0	\$0	\$2,000	\$2,000	2028
SB	Bryant Street Parking Modifications	2024	New	\$0	\$0	\$0	\$0	\$0	\$1,000	\$3,000	\$0	\$0	\$0	\$0	\$4,000	\$4,000	2027
SC	Main & O Seawall Restoration (Phase 2, HQO)	2020	New	\$0	\$0	\$6,000	\$3,000	\$3,000	\$0	\$0	\$0	\$0	\$0	\$0	\$12,000	\$12,000	2023
SD	Main PS Building Modifications - Historic Restoration	2021	New	\$0	\$0	\$1,500	\$3,000	\$2,000	\$8,000	\$2,000	\$0	\$0	\$0	\$0	\$16,500	\$15,000	2024
TOTAL FACILITY LAND USE BUDGETS				\$8,529	\$42,066	\$31,849	\$20,665	\$6,831	\$11,058	\$10,396	\$3,901	\$3,553	\$3,560	\$3,600	\$137,479	\$221,841	
TOTAL NON PROCESS FACILITIES BUDGETS				\$8,529	\$42,066	\$31,849	\$20,665	\$6,831	\$11,058	\$10,396	\$3,901	\$3,553	\$3,560	\$3,600	\$137,479	\$221,841	

(\$ in thousands)

FY 2019 Actual	FY 2020 - FY 2029 Disbursement Plan											Lifetime Budget
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	
\$53,127	\$77,536	\$102,976	\$113,378	\$107,232	\$107,312	\$70,680	\$97,878	\$101,839	\$132,256	\$138,165	\$1,049,252	\$3,698,301



Blue Plains Advanced Wastewater Treatment Plant



Secondary Sedimentation



Nitrification Reactors

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 biosolids product. DC Water’s current NPDES permit is effective from August 26, 2018 through August 25, 2023. This permit requires wastewater treatment to a level that meets one of the most stringent NPDES discharge permits in the United States.

Blue Plains Advanced Wastewater Treatment Plant treats an annual average flow of 320 million gallons per day (MGD) and has a design capacity of 384 MGD, with a peak wet weather design capacity to treat more than one billion gallons per day. Wastewater flows in from the District of Columbia, Montgomery and Prince George’s Counties in Maryland, and Fairfax and Loudoun counties in Virginia.

PROGRAM AREAS

Liquids 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 beneficial reuse of biosolids. 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 nitrogen removal processes, pre-dewatering of blended thickened solids by centrifuge, pretreatment of solids by thermal hydrolysis, anaerobic digestion, and final dewatering of Class A biosolids by belt filter press.

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. In addition to expansion of existing nitrification and denitrification processes, this program includes a new wet weather treatment facility that simultaneously treats combined stored sewage and reduces the peak flow through the biological treatment system. The necessary facilities to meet the current NPDES permit are in operation. However, close out activities continued into fiscal year 2020 and an expansion will be required in the future to treat future increases in influent load to the Plant.

ACCOMPLISHMENTS

- Completed construction of a hot water system for use in cleaning influent screens at East Screen Facility at Blue Plains. The existing system utilizes cold water, which is not as effective for cleaning scum off of the screens as hot water is.
- Ongoing construction of Raw Wastewater Pumping Station 2 – The pump 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. Several replaced pumps have been placed in service.
- Executed a design-build contract for Floodwall Segment C at Blue Plains. This is one of five segments that once completed, will protect the wastewater treatment plant from river levels up to the 500-year flood elevation with sufficient freeboard to protect against storm surge as well.
- Executed a construction contract for replacement of Filter Influent Pumps 1-10. These pumps deliver nitrified and denitrified effluent to the filtration process at Blue Plains, which removes solids and phosphorus to meet permit limits.
- Executed a construction contract for Gravity Thickener Upgrades. This project includes upgrading 10 gravity thickeners as well as the primary sludge de-gritting systems and associated electrical and instrumentation and control systems.
- Continued design of Final Reclaimed Effluent Pump Station Upgrade. The Reclaimed Final Effluent (RFE) pump system is the source of water for the Process Service Water system (PSW) at Blue Plains. The project upgrades equipment for reliability as well as increasing capacity to meet the demand of facilities that have been added to the wastewater treatment plant in recent years.

OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS

Raw Wastewater Pumping Station 2 – This facility delivers sixty percent of the wastewater from the wastewater collection system into Blue Plains. The project will improve safety and reliability and reduce corrective maintenance effort at this facility. A reliable pump station 2 is critical to continuing to meet the NPDES permit requirements.

Plantwide Hot Water System – As part of this project, a hot water system was installed at the East Screening Facility that will improve the effectiveness of the influent screens, extend the useful life of the screens, and reduce demand for operator attention to the screens.

Wastewater Treatment

summary overview financial plan rates&rev financing departmental glossary

capital

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
LIQUID PROCESSING														
A2 Liquid Processing Program Management	\$1,094	\$1,100	\$2,346	\$3,040	\$3,829	\$3,224	\$5,122	\$6,952	\$6,928	\$5,192	\$1,797	\$39,530	\$54,828	2035
B6 Primary Sedimentation Tank Covers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$646	\$1,017	\$150	\$2,388	\$4,201	\$43,598	2032
B7 Primary Sedimentation Tank Odor-Scrubblers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$753	\$116	\$2,041	\$1,006	\$3,916	\$45,870	2032
BC Headworks Influent Structures	\$0	\$980	\$2,728	\$3,165	\$5,930	\$3,028	\$0	\$0	\$0	\$0	\$0	\$15,831	\$16,960	2024
BG Dual Purpose Rehabilitation	\$1,552	\$167	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$32,250	2020
BP Grit Chamber Facilities Phase II	-\$108	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$530	2021
BQ Grit and Screenings and Primary	\$1,388	\$515	\$1,720	\$2,010	\$12,783	\$21,702	\$6,062	\$0	\$0	\$0	\$0	\$44,792	\$48,660	2025
BR Nitrification/Denitrification Facility	\$564	\$660	\$892	\$2,122	\$152	\$185	\$93	\$20	\$0	\$0	\$0	\$4,124	\$54,568	2026
BT Filtration/Disinfection Facility Phase II	\$7,759	\$224	\$0	\$128	\$88	\$952	\$1,295	\$122	\$0	\$0	\$0	\$2,809	\$24,018	2026
BV Raw Wastewater Pump Station No. 2 Upgrades	\$0	\$5,930	\$752	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,682	\$46,870	2021
I4 Grit Removal Facilities - 20 Year Rebuild	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,314	\$7,450	\$9,764	\$52,500	2033
I5 Raw Water Pump Stations 1 & 2 - 20 Year Rebuild	\$0	\$0	\$0	\$0	\$26	\$879	\$768	\$9,569	\$10,766	\$1,706	\$0	\$23,714	\$29,000	2028
I7 Primary Treatment - 20 Year Rebuild	\$0	\$0	\$0	\$0	\$0	\$647	\$8,281	\$19,923	\$15,416	\$7,733	\$0	\$52,000	\$54,600	2028
IY Effluent Filter Upgrade	\$2,475	\$1,728	\$7,228	\$14,020	\$15,993	\$10,179	\$4,159	\$3,793	\$3,288	\$14,022	\$37,380	\$111,790	\$167,099	2031
IZ Replace/Upgrade Influent Screens	\$3	\$4,765	\$6,160	\$4,043	\$0	\$0	\$0	\$0	\$260	\$2,723	\$1,811	\$19,762	\$81,476	2033
J2 Replace/Upgrade Primary Treatment Mechanisms	\$5	\$195	\$2,243	\$4,496	\$4,288	\$1,873	\$620	\$20	\$35	\$1,191	\$2,282	\$17,244	\$22,752	2031
J6 Deammonification Project	\$0	\$0	\$0	\$34	\$404	\$276	\$1,618	\$931	\$0	\$0	\$0	\$3,263	\$3,503	2026
JC Secondary East and West - 20 Year Rebuild	\$0	\$0	\$0	\$0	\$1	\$769	\$79	\$481	\$4301	\$1,538	\$0	\$20,159	\$96,000	2034
LC Effluent Disinfection Upgrades	\$0	\$0	\$0	\$0	\$0	\$0	\$562	\$1,422	\$5,733	\$11,815	\$14,614	\$34,146	\$138,000	2035
LF Nitrification Reactor/Sedimentation - 20 Year Rebuild	\$0	\$247	\$51	\$0	\$1	\$463	\$620	\$5,036	\$3,913	\$0	\$0	\$10,331	\$15,129	2027
OZ Grit Chambers 1 & 2 Upgrades	\$155	\$58	\$0	\$0	\$0	\$0	\$367	\$507	\$4,032	\$3,222	\$0	\$8,186	\$9,685	2028
PD Secondary East & West Upgrades	\$52	\$821	\$1,730	\$1,954	\$1,938	\$605	\$0	\$0	\$0	\$0	\$0	\$7,048	\$9,711	2024
PE Nitrification Reactor/Sedimentation Upgrades	\$0	\$0	\$732	\$268	\$0	\$127	\$2,146	\$13,908	\$4,215	\$346	\$0	\$21,742	\$23,321	2028
RN Liquids Processing Rehabilitation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,906	\$7965	\$38,958	\$21,874	\$71,703	\$82,820	2030
RW Long-term Concrete Rehabilitation Projects	\$0	\$7,127	\$15,914	\$7,789	\$3,315	\$0	\$0	\$0	\$0	\$0	\$0	\$34,145	\$105,100	2023
UC Filtration/Disinfection Facility	\$257	\$24,516	\$42,496	\$43,069	\$48,748	\$44,909	\$31,792	\$66,989	\$68,544	\$99,413	\$103,740	\$574,216	\$1,266,857	2023
TOTAL LIQUID PROCESSING BUDGETS	\$18,101	\$24,516	\$42,496	\$43,069	\$48,748	\$44,909	\$31,792	\$66,989	\$68,544	\$99,413	\$103,740	\$574,216	\$1,266,857	

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
PLANTWIDE														
AL Plantwide Project Program Management	\$1,304	\$1,540	\$4,436	\$3,745	\$4,013	\$3,626	\$2,662	\$1,693	\$1,285	\$4	\$0	\$23,004	\$48,777	2030
AZ Central Operations Facility Renovation	\$292	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,885	2019
BY Additional Chemical Systems Phase III	\$0	\$0	\$0	\$0	\$0	\$120	\$443	\$874	\$934	\$563	\$465	\$3,399	\$3,822	2029
CH Miscellaneous Facility Projects	\$121	\$5	\$5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10	\$8,039	2022
CV Laboratory Upgrades	\$0	\$121	\$88	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$209	\$8,768	2021
CW Security at Blue Plains	\$386	\$884	\$535	\$148	\$72	\$72	\$48	\$0	\$0	\$0	\$0	\$1,759	\$6,568	2025
DQ Non-OEM PLC Interfaces/Replacements	\$8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,185	2020
EI Plantwide Painting of Steel Pipes	\$0	\$0	\$0	\$0	\$271	\$1,624	\$1,619	\$1,366	\$0	\$0	\$0	\$4,880	\$4,960	2026
EW Instrumentation & Control & Electric Program Management	\$1,065	\$1,349	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,349	\$5,691	2020
GW Control Systems Replacement	\$0	\$0	\$420	\$490	\$618	\$932	\$2,266	\$7,835	\$12,423	\$6,630	\$0	\$31,614	\$37,000	2031
HL DWT - Process and Operations Jobs	\$704	\$1,240	\$1,008	\$1,254	\$1,461	\$291	\$0	\$0	\$0	\$0	\$0	\$5,254	\$10,022	2024
IC Electrical Monitoring Systems	\$0	\$2	\$478	\$770	\$2,387	\$6,608	\$1,554	\$0	\$0	\$0	\$0	\$11,799	\$13,611	2025
IT Hauled Waste Receiving Facility	\$0	\$0	\$0	\$0	\$722	\$1,429	\$1,425	\$1,425	\$0	\$0	\$0	\$5,001	\$5,000	2026
IU Solar Photovoltaic System	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$960	2021
IV Blue Plains IT Backbone Fibre-Optic Cables Tubes	\$0	\$3	\$699	\$1,462	\$581	\$329	\$64	\$0	\$0	\$0	\$0	\$3,138	\$5,899	2025
JF Construction of Flood Seawall	\$0	\$3,357	\$2,485	\$3,425	\$3,201	\$546	\$418	\$0	\$0	\$0	\$0	\$13,432	\$15,053	2025
LP Wastewater Asset Management Technical Support	\$20	\$268	\$248	\$204	\$330	\$0	\$0	\$0	\$0	\$0	\$0	\$1,050	\$10,000	2023
LS Miscellaneous Facility Projects FY 2013	\$713	\$2,404	\$358	\$304	\$304	\$681	\$748	\$450	\$450	\$451	\$450	\$6,600	\$16,864	2030
LX Process Control System Upgrade	\$0	\$0	\$1,846	\$1,777	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$3,625	\$4,000	2023
OD Plantwide Paving	\$392	\$42	\$240	\$483	\$2,014	\$1,784	\$1,535	\$387	\$0	\$0	\$0	\$6,485	\$8,240	2026
OE Plantwide Drainage & Runoff	\$81	\$90	\$587	\$4,437	\$2,622	\$2,099	\$2,960	\$1,909	\$0	\$0	\$0	\$14,704	\$17,289	2026
OG City Water & Sewer Upgrades at Wastewater Treatment Plant	\$0	\$0	\$0	\$22	\$554	\$453	\$0	\$0	\$0	\$0	\$0	\$1,029	\$1,250	2024
OH Plantwide Demolition	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40	\$1,460	\$3,574	\$2,008	\$7,002	\$11,100	2032
OI Plantwide Painting & Signage	\$0	\$0	\$0	\$0	\$0	\$116	\$283	\$51	\$0	\$0	\$0	\$450	\$450	2026
OM Plantwide Hot Water System/ Loop Rehabilitation	\$1,378	\$2,222	\$1,180	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,402	\$6,654	2021
ON Plantwide Grounding Upgrades	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,500	2028
OP Plantwide Sump Pump Rehabilitation	\$0	\$0	\$0	\$0	\$0	\$115	\$344	\$345	\$194	\$2	\$0	\$1,000	\$1,000	2028
OQ Plantwide Roofing Upgrades	\$0	\$0	\$0	\$114	\$494	\$764	\$407	\$3,919	\$4,301	\$0	\$0	\$9,999	\$10,000	2027
OS Plantwide Lighting Upgrades	\$274	\$507	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,507	\$3,015	2021
PF Chemical System/Building Upgrades	\$1,797	\$421	\$183	\$761	\$2,447	\$7,141	\$2,912	\$71	\$0	\$0	\$0	\$13,936	\$23,482	2026
TA Process Computer Control System	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$65,498	2019
TZ Electric Power System - Power Gear	\$1,172	\$1,662	\$3,838	\$10,087	\$7,516	\$8,427	\$4,356	\$3,085	\$8,253	\$3,138	\$0	\$50,362	\$71,332	2028
YD Miscellaneous Projects	\$649	\$1,270	\$70	\$300	\$1,254	\$1,036	\$417	\$350	\$350	\$351	\$349	\$5,747	\$51,084	2029
XP Efficiency Improvements	\$0	\$0	\$12,500	\$12,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$25,000	2024
TOTAL PLANTWIDE BUDGETS	\$10,357	\$17,387	\$32,784	\$42,213	\$30,735	\$37,879	\$23,127	\$18,231	\$25,062	\$20,506	\$9,902	\$257,826	\$525,997	

SOLIDS PROCESSING

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
AM Solids Processing Program Management	\$385	\$672	\$1,353	\$1,844	\$1,541	\$1,650	\$1,505	\$1,609	\$1,540	\$1,198	\$168	\$13,080	\$18,205	2029
BX Gravity Thickener Upgrades Phase II	\$360	\$17,977	\$19,087	\$15,295	\$11,454	\$8,473	\$0	\$0	\$0	\$0	\$0	\$72,286	\$82,866	2024
EV Area Substation No. 6	\$158	\$59	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$59	\$22,104	2020
I3 Biosolids Blending Development Center	\$50	\$370	\$5,879	\$1,001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,250	\$8,348	2022
LD Pre-Dewatering Additional Centrifuges	\$0	\$6	\$509	\$642	\$4,032	\$4,020	\$142	\$0	\$0	\$0	\$0	\$9,351	\$10,118	2025
LE High Strength Waste Receiving Facility (Includes Fats, Oils & Grease)	\$0	\$0	\$0	\$0	\$0	\$271	\$726	\$3,804	\$481	\$0	\$0	\$5,282	\$6,008	2027
RM Biosolids Rehabilitation	\$0	\$0	\$20	\$5,469	\$5,417	\$3,477	\$10,191	\$4,666	\$3,450	\$332	\$345	\$33,367	\$79,996	2033
XA New Digestion Facilities	\$4,498	\$723	\$463	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,186	\$52,896	2021
XB Centrifuge Thickener Facility	\$28	\$7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7	\$48,726	2020
XZ Solids Processing Building / Dewatered Sludge Loading Facility	\$12	\$33	\$3	\$3,173	\$3,408	\$4,863	\$3,197	\$2,579	\$556	\$1,147	\$1,956	\$20,915	\$41,240	2032
XY Process Control & Computer Sys	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,799	\$10,389	\$18,188	\$54,000	2033
TOTAL SOLIDS PROCESSING BUDGETS	\$5,493	\$19,847	\$27,314	\$27,424	\$25,852	\$22,754	\$15,761	\$12,658	\$6,027	\$10,476	\$12,858	\$180,971	\$924,507	

ENHANCED NITROGEN REMOVAL

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
BI Enhanced Nitrogen Removal (ENR) North	\$1,088	\$103	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$103	\$77,076	2020
E8 Enhanced Clarification Facilities	\$7,635	\$6,857	\$127	\$672	\$1,897	\$1,770	\$0	\$0	\$0	\$0	\$0	\$11,323	\$176,628	2024
E9 Nitrogen Removal Facilities	\$215	\$154	\$29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$183	\$274,930	2021
EE Filtrate Treatment Facilities	\$887	\$1,405	\$226	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,631	\$107,951	2021
EG Blue Plains Tunnel	\$24	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$177,532	2021
FG Secondary Treatment Upgrades for Total Nitrogen	\$20	\$378	\$0	\$0	\$0	\$0	\$0	\$0	\$2,206	\$1,861	\$11,665	\$16,110	\$57,168	2032
FR Blue Plains Tunnel Dewatering Pumping Station	\$675	\$1,211	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,211	\$35,617	2021
FS Boiling Overflow & Diversion	\$1,671	\$1,684	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,684	\$55,937	2020
LM Enhanced Nitrogen Removal Program Management	\$6,961	\$3,994	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,994	\$20,100	2025
TOTAL ENHANCED NITROGEN REMOVAL BUDGETS	\$19,176	\$15,786	\$382	\$672	\$1,897	\$1,770	\$0	\$0	\$2,206	\$1,861	\$11,665	\$36,239	\$980,940	

TOTAL WASTEWATER TREATMENT BUDGETS

\$53,127	\$77,536	\$102,976	\$113,378	\$107,232	\$107,312	\$70,680	\$97,878	\$101,839	\$132,256	\$138,165	\$1,049,252	\$3,698,301
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(\$ in thousands)

FY 2019 Actual	FY 2020 - FY 2029 Disbursement Plan										Lifetime Budget	
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029		10-Yr Total
\$221,752	\$171,436	\$157,058	\$192,649	\$145,824	\$84,267	\$68,476	\$155,470	\$110,837	\$97,863	\$127,484	\$1,311,366	\$3,041,740



Combined Sewer Overflow Outfall



Northeast Boundary Tunnel



Fort Reno Green Infrastructure

Overview

Similar to more than 700 older communities primarily 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. Combined sewers convey both stormwater runoff and sanitary sewage from homes and businesses in a single pipe. 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 to prevent surface flooding and basement backups. This discharge is called Combined Sewer Overflow (CSO). Approximately one-third of the system is combined, mostly in the downtown and older parts of the city. There are 48 potentially active CSO outfalls in the District.

DC Water has made substantial progress in the implementation of 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. The first phase of the Anacostia River tunnel system was completed and all structures south of RFK stadium placed into operation as of March 2018. DC Water continues to implement the remaining project for the Anacostia River (currently under construction), as well as future projects for the Potomac River and Rock Creek currently under design. When fully implemented, CSO's will be reduced by a projected 96 percent city-wide during an average year (98 percent on the Anacostia River), resulting in improved water quality and significantly reducing debris in our nations capital waterways.

PROGRAM AREAS

DC Clean Rivers – The plan includes a variety of improvements throughout portions of the District served by combined sewers. For the Anacostia River, the plan includes constructing a series of massive tunnels and diversion facilities to control CSO’s and to relieve surface flooding, and a tunnel dewatering pump station and increased wet weather flow treatment at Blue Plains, with system completion in 2023. In addition, the amended plan includes a combination of green infrastructure in large scale and a tunnel system to control Potomac River overflows with projected completion in 2030. Green infrastructure will also be constructed to control CSOs to Piney Branch/Rock Creek, with the first projects completed in 2019. Planning is underway for future projects.

Program Management – The CSO Program Manager is responsible for evaluation of combined sewer systems, as well as management for 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

- Continued construction of the Northeast Boundary Tunnel, the final segment of the Anacostia River Tunnel System
- Completed construction of the first Rock Creek Green Infrastructure project
- Post construction monitoring of the first Rock Creek Green Infrastructure Project is ongoing
- Completed the first Potomac Green Infrastructure project
- Post construction monitoring of the first Potomac Green Infrastructure project
- Substantially completed the Finding of No Significant Impact (FONSI) for the Potomac River Tunnel Environmental Assessment (EA) to conclude National Environmental Policy Act (NEPA) compliance
- Substantially completed a Programmatic Agreement for the Potomac River Tunnel to resolve compliance with Section 106 of the National Historic Preservation Act
- Began preparation of contract documents for the Potomac River Tunnel Project
- Completed 90% design of the CSO 025/026 Sewer Separation Project
- Began the procurement of CSO 025/026 Sewer Separation Project
- Completed upgrades to the Potomac Pumping Station
- Continued construction of Main Pump Station Flood Hardening Project

OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS

DC Clean Rivers – This project aims to control CSO’s to the Anacostia and Potomac Rivers and Rock Creek to meet the District’s water quality standards, while improving the health of the Chesapeake Bay. This ongoing project includes green infrastructure initiatives that will divert stormwater runoff prior to entering the sewer system. The first portion of Anacostia River Tunnel System, between Blue Plains and Overflow and Diversion Facilities (CSO-019) is complete. All structures south of RFK Stadium are in operation since March 20, 2018. As of February 12, 2020, the first portion of the Anacostia River Tunnel system had captured approximately 7.2 billion gallons of combined sewer overflows and nearly 3,300 tons of trash, debris, and other solids. The system is achieving a 90% CSO capture rate, exceeding the projected 80% capture rate at this stage of implementation. The tunnel system will improve operational flexibility by providing alternate means of transferring flow to Blue Plains, thereby allowing temporary diversion of flows to the tunnel to facilitate operation, maintenance and rehabilitation throughout the combined sewer system.

Potomac Pump Station Upgrades – Phase 3 upgrades to address health & safety improvements and increase the reliability of the pumping station completed.



Combined Sewer Overflow

summary overview financial plan rates&rev capital financing departmental glossary

(\$ in thousands)

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
DC CLEAN RIVERS														
CY Anacostia Long Term Control Plan Projects	\$193,996	\$142,825	\$134,050	\$133,775	\$60,538	\$0	\$0	\$0	\$0	\$0	\$0	\$471,188	\$1,943,834	2026
CZ Potomac Long Term Control Plan Projects	\$12,628	\$12,339	\$10,723	\$31,123	\$43,009	\$62,677	\$44,986	\$12,119	\$89,803	\$53,242	\$41,333	\$510,426	\$562,323	2029
DZ Rock Creek CSS LTCP Project	\$8,711	\$7,034	\$2,792	\$14,935	\$25,725	\$4,859	\$14,972	\$27,580	\$13,462	\$35,649	\$73,717	\$220,674	\$258,099	2031
TOTAL DC CLEAN RIVERS BUDGETS	\$215,335	\$162,197	\$147,565	\$179,833	\$129,272	\$67,536	\$59,909	\$148,771	\$103,265	\$88,890	\$115,049	\$1,202,288	\$2,764,255	
PROGRAM MANAGEMENT														
AV Combined Sewer Overflow Program Management	\$2,062	\$1,287	\$1,792	\$2,237	\$2,972	\$3,028	\$2,050	\$1,031	\$0	\$0	\$0	\$14,396	\$57,756	2027
RP CSO Program Management	\$0	\$0	\$0	\$0	\$0	\$0	\$1,598	\$2,515	\$3,125	\$2,519	\$2,519	\$9,757	\$20,000	2031
TOTAL PROGRAM MANAGEMENT BUDGETS	\$2,062	\$1,287	\$1,792	\$2,237	\$2,972	\$3,028	\$2,050	\$2,629	\$2,515	\$3,125	\$2,519	\$24,154	\$77,756	
COMBINED SEWER														
BA DC Water Low Impact Development Projects	\$45	\$420	\$116	\$21	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$557	\$2,870	2022
EJ Potomac Pumping Station - Phase III Rehabilitation	\$1,688	\$1,129	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,129	\$35,571	2020
EK Long Term Rehabilitation - Main & O Pump Station	\$0	\$0	\$27	\$58	\$1,592	\$5,568	\$4,850	\$4,014	\$5,000	\$5,793	\$9,873	\$36,775	\$55,644	2031
EQ Potomac Pumping Station-Phase IV Rehabilitation	\$0	\$114	\$1,290	\$410	\$226	\$0	\$0	\$0	\$0	\$0	\$0	\$2,041	\$2,325	2023
FQ Main & O Street PS Intermediate Upgrade	\$2,594	\$5,739	\$4,875	\$3,435	\$2,666	\$189	\$38	\$0	\$0	\$0	\$0	\$16,942	\$37,349	2025
FX Rehabilitation Northeast Boundary Sewer - Phase I	\$27	\$12	\$6	\$12	\$26	\$39	\$49	\$56	\$57	\$54	\$43	\$355	\$4,617	2032
FZ Tiber Creek Sewer Lining - Phase I	\$0	\$0	\$0	\$0	\$459	\$301	\$0	\$0	\$0	\$0	\$0	\$760	\$1,000	2027
G7 Combined Sewers Under Buildings	\$0	\$515	\$480	\$5,730	\$3,214	\$0	\$0	\$0	\$0	\$0	\$0	\$9,939	\$21,880	2023
IH Combined Sewer Rehabilitation 2	\$0	\$23	\$907	\$771	\$4,942	\$3,858	\$336	\$0	\$0	\$0	\$0	\$10,837	\$31,798	2025
IP Tiber Creek Trunk Sewer Rehabilitation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2026
OB FY 2024 - Inflatable Dams Replacement	\$0	\$0	\$0	\$141	\$454	\$3,749	\$1,245	\$0	\$0	\$0	\$0	\$5,589	\$6,675	2025
TOTAL COMBINED SEWER BUDGETS	\$4,355	\$7,952	\$7,701	\$10,579	\$13,581	\$13,703	\$6,518	\$4,070	\$5,057	\$5,847	\$9,916	\$84,924	\$199,729	
TOTAL COMBINED SEWER OVERFLOW BUDGETS	\$221,752	\$171,436	\$157,058	\$192,649	\$145,824	\$84,267	\$68,476	\$155,470	\$110,837	\$97,863	\$127,484	\$1,311,366	\$3,041,740	

(\$ in thousands)

FY 2019 Actual	FY 2020 - FY 2029 Disbursement Plan										Lifetime	
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Budget
\$2,210	\$6,869	\$9,631	\$7,535	\$4,170	\$5,392	\$4,660	\$4,201	\$4,306	\$6,869	\$5,057	\$58,690	\$122,404



City Street Catch Basin



Stormwater Overflow



Potomac River

Overview

Stormwater runoff occurs when rain or snowmelt flows over impervious surfaces or surfaces that do not allow water to soak into the ground such as roads, driveways, sidewalks, parking lots, and buildings. The District is required to meet certain regulatory requirements in managing its separate stormwater system under the District’s Municipal Separate Storm Sewer System (MS4) permit issued by the federal government.

The stormwater system has about 575 miles of storm sewer pipes and 16,000 manholes, about 15,000 catch basins and inlets, and other 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 – This category includes several projects for investigation, design and rehabilitation of local sewers to relieve local flooding and to address short term needs for improvements to storm sewers located in the separate and combined sewer areas.

On-Going – These include storm sewer rehabilitation projects carried out by DC Water’s Department of Sewer Services. These annual projects also provide funding to assist in immediate storm sewer construction to alleviate flooding.

Pumping Facilities – DC Water’s 16 stormwater pump stations serve critical areas of the District and are integral to the road network to maintain safe passage of vehicles through areas that do not drain without the assistance of mechanical means. DC Water has projects to upgrade all 16 of these stormwater pump stations to replace aging equipment and improve reliability, safety, and code compliance.

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

Research and Program Management – Provides engineering program management services for the stormwater service area capital projects and required technical assessments and hydraulic studies required to assess problems in the stormwater system. It also provides engineering services for condition assessment of the storm sewer system.

Trunk/Force Sewers – Provides for the design and construction services for stormwater 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 program area to remediate system problems.

ACCOMPLISHMENTS

- Construction continued for the rehabilitation and improvement of the Watts Branch Storm Sewer Phase 3
- Design is complete, and construction bidding is pending for rehabilitation of the Kenilworth and 1st and D Stormwater Pump Stations
- Construction was completed for full station re-build of 14th Street Bridge Stormwater Pump Station
- Design is underway for rehabilitation of the 12th and Maine Street SW, and Portland Street Stormwater Pump Stations
- An evaluation of hydraulic capacity requirements and pump sizing; redundant power needs, including utility power and backup generators, is underway for all 16 Stormwater Pump Stations
- Partial rehabilitation and emergency repairs have been completed at 1st and Canal, 9th and D, 1st and D, and 23rd and Virginia stormwater pump stations
- SCADA control system upgrades are planned for all 16 stormwater pumping stations. Recent upgrades have been completed at 14th Street Bridge, 23rd and Virginia, and 9th and D stormwater pumping stations. This work is partially funded by a grant from FEMA

OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS

Stormwater Pumping Stations Rehabilitation – This project implements the highest priority rehabilitation or upgrades, addresses issues related to health and safety and station reliability, and will reduce maintenance needs.

(\$ in thousands)

		Start	Status	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
LOCAL DRAINAGE																	
GY	Storm Sewer Rehabilitation at Various Locations	2013	Ongoing	\$0	\$12	\$22	\$667	\$411	\$15	\$0	\$0	\$0	\$0	\$0	\$1,127	\$5,908	2024
IE	Storm Sewer Rehabilitation 3	2020	Ongoing	\$0	\$0	\$21	\$183	\$1,252	\$1,868	\$770	\$0	\$0	\$0	\$0	\$4,094	\$4,817	2026
RR	Local Storm Sewer Rehabilitation	2025	Ongoing	\$0	\$0	\$0	\$0	\$0	\$80	\$394	\$1,792	\$1,970	\$1,709	\$5,945	\$7,300	2030	
TOTAL LOCAL DRAINAGE BUDGETS				\$0	\$12	\$22	\$688	\$594	\$1,267	\$1,948	\$1,164	\$1,792	\$1,970	\$1,709	\$11,166	\$18,025	

		Start	Status	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
ON-GOING																	
FN	FY2017 - DSS Stormwater Projects	2017	Closed	\$43	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000	2019
H5	FY2018 - DSS Stormwater Projects	2018	Closed	\$701	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$791	2021
HM	FY2019 - DSS Stormwater Projects	2019	Ongoing	\$150	\$608	\$52	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$660	\$794	2021
JH	FY2020 - DSS Stormwater Projects	2020	Ongoing	\$0	\$403	\$351	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$754	\$820	2021
LO	FY2021 - DSS Stormwater Projects	2021	Ongoing	\$0	\$0	\$228	\$572	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$750	\$845	2022
M8	FY2022 - DSS Stormwater Projects	2022	Ongoing	\$0	\$0	\$0	\$587	\$233	\$0	\$0	\$0	\$0	\$0	\$0	\$820	\$820	2023
MG	FY2023 - DSS Stormwater Projects	2023	Ongoing	\$0	\$0	\$0	\$604	\$0	\$240	\$0	\$0	\$0	\$0	\$0	\$844	\$845	2024
NV	FY2024 - DSS Stormwater Projects	2024	Ongoing	\$0	\$0	\$0	\$0	\$0	\$626	\$245	\$0	\$0	\$0	\$0	\$871	\$870	2025
PI	FY2025 - DSS Stormwater Projects	2025	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$281	\$615	\$0	\$0	\$0	\$896	\$896	2026
QA	FY2026 - DSS Stormwater Projects	2026	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$260	\$571	\$0	\$0	\$923	\$923	2027
T7	FY2028 - DSS Stormwater Projects	2028	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$501	\$380	\$881	\$979	2029
T9	FY2027 - DSS Stormwater Projects	2027	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$272	\$583	\$0	\$855	\$950	2028
U6	FY2029 DSS Stormwater Project	2029	New	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$907	\$907	\$1,008	2029
TOTAL ON-GOING BUDGETS				\$893	\$1,011	\$631	\$1,109	\$837	\$866	\$526	\$875	\$843	\$1,084	\$1,287	\$9,069	\$11,540	

		Start	Status	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
PUMPING FACILITIES																	
NG	Stormwater Pumping Station Rehabilitation	2017	Ongoing	\$1,283	\$5,310	\$8,392	\$4,923	\$2,259	\$2,854	\$1,865	\$1,698	\$1,353	\$3,430	\$1,755	\$33,839	\$61,204	2033
TOTAL PUMPING FACILITIES BUDGETS				\$1,283	\$5,310	\$8,392	\$4,923	\$2,259	\$2,854	\$1,865	\$1,698	\$1,353	\$3,430	\$1,755	\$33,839	\$61,204	

		Start	Status	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
DDOT																	
H4	FY 2018 - DDOT Stormwater Projects	2020	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,017	2020
HP	FY 2019 - DDOT Stormwater Projects	2020	Ongoing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$220	2022
TOTAL DDOT BUDGETS				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,237	

(\$ in thousands)

RESEARCH & PROGRAM MANAGEMENT		FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
AT	Stormwater Program Management	\$33	\$410	\$445	\$582	\$367	\$405	\$302	\$228	\$0	\$0	\$0	\$2,739	\$11,389	2026
RQ	Storm Water Program Management	\$0	\$0	\$0	\$0	\$0	\$0	\$19	\$236	\$318	\$385	\$306	\$1,264	\$1,500	2030
TOTAL RESEARCH & PROGRAM MANAGEMENT BUDGETS		\$33	\$410	\$445	\$582	\$367	\$405	\$321	\$464	\$318	\$385	\$306	\$4,003	\$12,889	
TRUNK/FORCE SEWERS		FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
BO	Future Stormwater Projects	\$1	\$126	\$141	\$233	\$113	\$0	\$0	\$0	\$0	\$0	\$0	\$613	\$15,510	2023
TOTAL TRUNK/FORCE SEWERS BUDGETS		\$1	\$126	\$141	\$233	\$113	\$0	\$0	\$0	\$0	\$0	\$0	\$613	\$15,510	
TOTAL STORMWATER BUDGETS		\$2,210	\$6,869	\$9,631	\$7,535	\$4,170	\$5,392	\$4,660	\$4,201	\$4,306	\$6,869	\$5,057	\$58,690	\$122,404	

(\$ in thousands)

FY 2019 Actual	FY 2020 - FY 2029 Disbursement Plan											Lifetime Budget
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	
\$36,224	\$44,933	\$63,926	\$115,541	\$88,110	\$91,562	\$138,341	\$159,814	\$176,789	\$175,873	\$174,032	\$1,228,922	\$2,094,934



Sewer Line Rehabilitation Perma-liner



Catch Basin



Linear Pipe Restoration

Overview

DC Water is responsible for wastewater collection in the District of Columbia, including operation and maintenance of the sanitary sewer system. The sewer system includes approximately 720 miles of sanitary sewers, 6,000 manholes, and nine wastewater pumping stations. 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 – Projects to rehabilitate sanitary sewer pipes based on the findings of inspection and assessment conducted on these assets.

On-Going – Urgent 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 pump 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 rehabilitation of large diameter sewers that have reached the end of their useful life or are in need of major rebuild or refurbishment.

ACCOMPLISHMENTS

- Completed procurement of design-build contractor for the rehabilitation of Potomac Interceptor between MH31 and MH30. Notice to Proceed is anticipated to be issued in Spring 2020
- Completed the concept design report for the Potomac Interceptor Phase 4 Pipe Rehab at Fairfax and Loudoun Counties
- Completed the concept design report for the Potomac Interceptor Rehab Phase 6 at Clara Barton and I-495
- Developed a risk and prioritization model for sewer assets using InfoAsset Planner, an asset management software
- G100 Lining and Repair of Local Sewers was completed
- The National Arboretum Sewer Rehabilitation was completed
- Construction of 2 doghouse manholes under Federal Highway Administration (FHWA) Beach Drive Rehabilitation project was completed
- Completed start-up and training for new seal water system for Potomac Pumping Station
- Completed start-up of new automatic control system for pumps at Main Pumping Station
- Vibration evaluation for Potomac Pumping Station was completed
- Completed control strategy revisions for Main Pumping Station
- Completed the condition assessment for the Rehab of Gate Structure 5A, 5B 5C & Poplar Point Pump Station Junction
- Completed installation of new screen at East Side Pump Station
- Started the planning and pre-design of the Major Sewer Rehab 1-5 Northeast Boundary Trunk Sewer
- Continued design on the following projects:
 - Creekbed Sewer Rehabilitation Glover Park
 - Creekbed Sewer Rehabilitation Soapstone Valley
 - Creekbed Sewer Rehabilitation Foundry Branch
 - Creekbed Sewer Rehabilitation Fort Stanton Park, Irving & Suitland
 - Potomac Interceptor Phase 1 Pipe Rehab at Clara Barton Parkway
- Continued construction on the following projects:
 - Low Area Trunk Sewer Rehabilitation
 - Sewer Rehabilitation 4
 - Creekbed Sewer Rehabilitation Rock Creek Oregon Avenue.
 - B Street/New Jersey Avenue Trunk Sewer Rehabilitation

OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS

Pump Stations – The new seal water system, automatic control systems, vibration evaluation, and other upgrades will ensure proper operations of these pumping stations.

Ongoing and Local Sewer Rehabilitation – Renewal of small diameter sewer infrastructure will reduce emergency repair and maintenance demands for these neighborhood sewers.

Major Sewer Rehabilitation – Renewal of major sewers will reduce emergency repair and maintenance demands for these sewers.

(\$ in thousands)

COLLECTION SEWERS

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
GI Small Local Sewer Rehabilitation 1	\$2,970	\$1,152	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,152	\$29,128	2023
GA Small Local Sewer Rehabilitation 4	\$300	\$535	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$535	\$9,062	2020
J3 Sewer Upgrade - City Wide	\$1,315	\$1,045	\$515	\$1,978	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,538	\$18,315	2022
JX Sanitary Sewer Rehabilitation 10	\$0	\$15	\$20	\$2,173	\$7,075	\$2,401	\$0	\$0	\$0	\$0	\$0	\$11,684	\$13,604	2024
QS Local Sewer Rehabilitation 5	\$0	\$39	\$636	\$843	\$7,433	\$14,239	\$13,467	\$6,095	\$0	\$0	\$0	\$42,752	\$45,004	2026
QT Local Sewer Rehabilitation 6	\$0	\$0	\$0	\$0	\$0	\$841	\$4,379	\$21,435	\$24,840	\$8,398	\$0	\$59,893	\$63,846	2028
QU Local Sewer Rehabilitation 7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$906	\$4,909	\$23,847	\$29,282	\$58,944	\$71,964	2030
QW Local Sewer Rehabilitation 8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$968	\$4,428	\$5,396	\$119,100	2036
QX Local Sewer Assessment 1	\$0	\$1,827	\$1,963	\$1,870	\$1,795	\$0	\$0	\$0	\$0	\$0	\$0	\$7,455	\$8,264	2023
QY Local Sewer Rehabilitation 2	\$0	\$0	\$0	\$1,700	\$1,706	\$3,904	\$3,500	\$3,690	\$0	\$0	\$0	\$14,500	\$16,553	2026
QZ Local Sewer Assessment 3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11	\$4,094	\$4,106	\$4,094	\$12,305	\$17,200	2030
RG Local Sewer Rehabilitation 9	\$0	\$0	\$0	\$0	\$0	\$2,927	\$11,694	\$20,786	\$16,902	\$9,452	\$3,239	\$65,000	\$70,000	2029
T4 District Energy Buzzard Point	\$0	\$0	\$5,000	\$25,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000	\$30,000	2021
RZ Sanitary Collections Sewers FY27-FY29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,000	\$19,000	\$20,000	\$57,000	\$57,000	2029
TOTAL COLLECTION SEWERS BUDGETS	\$4,584	\$4,613	\$8,134	\$33,564	\$18,009	\$24,312	\$33,040	\$52,923	\$68,745	\$65,771	\$61,043	\$370,154	\$569,040	

ON-GOING

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
D6 FY2014 - DSS Sanitary Sewer Projects	\$17	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,585	2018
DI FY2015 - DSS Sanitary Sewer Projects	\$116	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2023
DW FY2016 - DSS Sanitary Sewer Projects	\$455	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,940	2019
FP FY2017 - DSS Sanitary Sewer Projects	\$890	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,918	2020
H6 FY2018 - DSS Sanitary Sewer Projects	\$7,962	\$381	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$381	\$11,923	2021
HN FY2019 - DSS Sanitary Sewer Projects	\$1,943	\$5,014	\$262	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,276	\$12,200	2021
JL FY2020 - DSS Sanitary Sewer Projects	\$0	\$6,625	\$1,780	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,405	\$12,568	2021
LN FY2021 - DSS Sanitary Sewer Projects	\$0	\$0	\$10,278	\$7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,285	\$12,945	2022
M9 FY2022 - DSS Sanitary Sewer Projects	\$0	\$0	\$7	\$13,705	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,712	\$13,335	2022
MF FY2023 - DSS Sanitary Sewer Projects	\$0	\$0	\$0	\$0	\$13,667	\$0	\$0	\$0	\$0	\$0	\$0	\$13,667	\$13,735	2023
NW FY2024 - DSS Sanitary Sewer Projects	\$0	\$0	\$0	\$0	\$0	\$14,185	\$0	\$0	\$0	\$0	\$0	\$14,185	\$14,225	2024
OX FY2025 - DSS Sanitary Sewer Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$15,002	\$0	\$0	\$0	\$0	\$15,002	\$14,650	2025
PZ FY2026 - DSS Sanitary Sewer Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$17	\$15,236	\$0	\$0	\$0	\$15,253	\$15,090	2026
Q3 FY2003 - DSS Sanitary Sewer Projects	\$3	\$80	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$80	\$12,784	2020
T6 FY2028 - DSS Sanitary Sewer Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9	\$15,304	\$0	\$15,312	\$16,020	2028
T8 FY2027 - DSS Sanitary Sewer Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17	\$15,103	\$0	\$0	\$15,120	\$15,550	2027
U7 FY2029 DSS Sewer Sanitary Project	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9	\$14,842	\$14,851	\$16,501	2029
TOTAL ON-GOING BUDGETS	\$11,385	\$12,099	\$12,327	\$13,711	\$13,667	\$14,185	\$15,019	\$15,253	\$15,111	\$15,312	\$14,842	\$141,529	\$217,969	

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
PUMPING FACILITIES														
CX Sewer Facilities Security Upgrades	\$191	\$81	\$36	\$32	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$149	\$1,417	2023
GZ Sewer Instrumentation & Control	\$0	\$1,324	\$23	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,347	\$9,141	2021
LY Sewer Facilities Security Upgrades	\$0	\$21	\$86	\$116	\$58	\$19	\$0	\$0	\$0	\$0	\$0	\$300	\$2,000	2024
MB 3rd Street & Constitution Ave NW - Pumping Station	\$0	\$0	\$1,424	\$2,633	\$415	\$0	\$0	\$0	\$0	\$0	\$0	\$4,472	\$7,501	2024
MC Additional Sewer SCADA System Sites	\$328	\$617	\$1,858	\$1,734	\$680	\$0	\$0	\$0	\$0	\$0	\$0	\$4,889	\$8,099	2023
PM East Side Pumping Station	\$406	\$161	\$388	\$1,359	\$1,381	\$0	\$0	\$0	\$0	\$0	\$0	\$3,289	\$4,000	2023
PT Existing Sewer Facilities Building Optimization	\$0	\$15	\$33	\$104	\$433	\$52	\$0	\$0	\$0	\$0	\$0	\$637	\$705	2024
RH Sewer Pump Stations Upgrades	\$0	\$351	\$3,570	\$1,039	\$1,212	\$0	\$0	\$3,879	\$5,029	\$19,044	\$25,383	\$53,335	\$150,720	2032
RS Sewer Pump Station Upgrades 2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,599	\$8,688	\$8,245	\$19,533	\$42,600	2035
RT Sewer Pump Station Upgrades 3	\$0	\$0	\$0	\$1,117	\$1,842	\$4,582	\$10,468	\$7,760	\$4,305	\$0	\$0	\$30,074	\$35,950	2027
RU Sewer Pump Station Upgrades - Pumps & VFDs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2027
TOTAL PUMPING FACILITIES BUDGETS	\$926	\$2,570	\$5,995	\$6,924	\$8,240	\$5,068	\$10,468	\$11,639	\$11,933	\$27,732	\$33,628	\$174,196	\$270,778	

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
PROGRAM MANAGEMENT														
AU Sanitary Sewer Program Management	\$1,994	\$2,137	\$3,890	\$4,036	\$4,374	\$3,278	\$2,470	\$0	\$0	\$0	\$0	\$20,185	\$65,441	2025
DN Sewer Inspection Program	\$611	\$1,866	\$1,427	\$2,853	\$633	\$635	\$633	\$596	\$596	\$389	\$326	\$9,955	\$27,809	2030
LR Sanitary Sewer Asset Management	\$9	\$147	\$147	\$125	\$125	\$0	\$0	\$0	\$0	\$0	\$0	\$544	\$5,000	2024
QH Sanitary Sewer Program Management FY26-30	\$0	\$0	\$0	\$0	\$0	\$0	\$2,578	\$3,304	\$3,675	\$4,010	\$4,010	\$13,566	\$20,800	2031
TOTAL PROGRAM MANAGEMENT BUDGETS	\$2,614	\$4,150	\$5,464	\$7,014	\$5,132	\$3,913	\$3,103	\$3,174	\$3,900	\$4,064	\$4,335	\$44,250	\$119,050	

(\$ in thousands)

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
INTERCEPTOR/TRUNK FORCE														
A4 Future Sewer System Upgrades	\$3,710	\$1,851	\$653	\$3,034	\$805	\$0	\$0	\$0	\$0	\$0	\$0	\$6,343	\$45,813	2025
DM Upper Anacostia Main Interceptor Relief Sewer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$493	2029
DR Low Area Trunk Sewer Rehabilitation	\$4,375	\$4,459	\$134	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,593	\$22,714	2021
FW Rehab Piney Branch Trunk Sewer	\$0	\$71	\$244	\$2,897	\$5,163	\$2,376	\$0	\$0	\$0	\$0	\$0	\$10,751	\$16,027	2025
FY Rehab Upstream Rock Creek Main Interceptor	\$4	\$78	\$7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85	\$2,515	2030
G2 Sewer Structure Rehabilitation 1	\$0	\$19	\$76	\$245	\$1,372	\$347	\$0	\$0	\$0	\$0	\$0	\$2,059	\$9,225	2024
G4 Upper Potomac Interceptor Sewer Rehabilitation	\$852	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,852	2024
G5 Sewer Rehab Near Creek Beds	\$150	\$1,385	\$1,755	\$6,860	\$6,206	\$1,195	\$13,918	\$4,910	\$119	\$324	\$1,198	\$48,626	\$74,251	2030
G6 Sanitary Sewers Under Buildings 1	\$0	\$31	\$96	\$1,691	\$952	\$0	\$0	\$0	\$0	\$0	\$0	\$2,770	\$6,805	2023
GH Large Sewer Rehabilitation 3	\$0	\$641	\$3,058	\$9,698	\$4,076	\$0	\$0	\$0	\$0	\$0	\$0	\$17,473	\$24,332	2023
HS Rehabilitation of Influent Sewers	\$0	\$0	\$0	\$1,104	\$676	\$234	\$208	\$517	\$1,995	\$5,853	\$18,764	\$29,351	\$37,430	2030
HT Rehabilitation of Anacostia Force Main	\$246	\$364	\$142	\$0	\$0	\$0	\$0	\$89	\$333	\$210	\$354	\$1,492	\$11,360	2032
IF Sanitary Sewer Rehabilitation 2	\$0	\$102	\$9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$111	\$1,594	2021
IK Potomac Force Main Rehabilitation	\$0	\$473	\$251	\$0	\$34	\$167	\$140	\$210	\$384	\$1,726	\$1,115	\$4,500	\$6,127	2029
IL Creekbed Sewer Rehabilitation 2	\$3,104	\$1,954	\$1,509	\$1,154	\$868	\$4,444	\$4,127	\$4,212	\$977	\$200	\$0	\$19,445	\$54,482	2032
IM Creekbed Sewer Rehabilitation 3	\$0	\$0	\$56	\$269	\$309	\$330	\$928	\$4,058	\$4,966	\$193	\$318	\$11,427	\$20,697	2031
IN Upper East Side Trunk Sewer Rehabilitation	\$0	\$0	\$0	\$382	\$726	\$494	\$1,067	\$4,012	\$10,360	\$0	\$0	\$17,041	\$19,044	2027
JO B Street New Jersey Avenue Trunk Sewer Rehab	\$2,752	\$3,810	\$531	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,341	\$17,825	2021
LZ Potomac Interceptor Projects - Rehab. Phase 2	\$1,408	\$5,749	\$19,360	\$19,577	\$15,273	\$12,958	\$23,283	\$20,851	\$15,085	\$9,055	\$3,607	\$144,798	\$161,678	2029
N7 Potomac Sewer System Rehabilitation	\$16	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3	\$48,383	2023
PJ Re-Activation of Anacostia Force Main(Gravity Main as Relief to An	\$0	\$381	\$159	\$195	\$830	\$1,860	\$10,260	\$4,564	\$0	\$0	\$0	\$18,249	\$20,001	2026
RA Major Sewer Assessment and Heavy Cleaning 1	\$0	\$0	\$2,389	\$2,413	\$2,398	\$2,308	\$2,992	\$123	\$0	\$0	\$0	\$12,623	\$15,800	2026
RB Major Sewer Assessment and Heavy Cleaning 2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,027	\$4,200	\$4,200	\$173	\$12,600	\$14,100	2029
RC Major Sewer Rehabilitation 1	\$0	\$130	\$1,075	\$4,206	\$2,974	\$5,083	\$9,055	\$9,394	\$783	\$141	\$700	\$33,541	\$73,298	2034
RD Major Sewer Rehabilitation 2	\$0	\$0	\$501	\$603	\$401	\$1,022	\$7,356	\$12,790	\$17,459	\$13,043	\$2,585	\$55,759	\$73,129	2029
RE Major Sewer Rehabilitation 3	\$0	\$0	\$0	\$0	\$0	\$510	\$3,376	\$7,069	\$20,439	\$23,966	\$14,680	\$70,040	\$88,255	2031
RJ Creekbed Sewer Rehabilitation 4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,082	\$10,259	\$14,341	\$22,000	2030
RL Potomac Interceptor Projects - Rehab Phase 3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,431	\$6,431	\$22,500	2032
TOTAL INTERCEPTOR/TRUNK FORCE SEWER BUDGETS	\$16,715	\$21,501	\$32,006	\$54,327	\$43,062	\$44,084	\$76,710	\$76,826	\$77,100	\$62,993	\$60,184	\$548,794	\$918,096	

(\$ in thousands)

FY 2019 Actual	FY 2020 - FY 2029 Disbursement Plan											Lifetime
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Budget
\$45,310	\$62,163	\$88,677	\$108,878	\$109,000	\$92,905	\$101,765	\$116,319	\$146,791	\$154,916	\$154,697	\$1,136,112	\$2,273,813



St. Elizabeth Water Tower



30 Inch Water Main



Water Meter Installation

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 distributes drinking water through 1,320 miles of pipes to more than 700,000 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 flow rate 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.

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 system program area is the largest program for the water service area and includes three primary elements: small diameter water main renewal, large diameter water main rehabilitation, and DDOT project relocation needs.

Lead Program – The lead service line replacement includes the replacement of lead service liens in public and private right of way with copper piping. The replacement continues throughout the water distribution system as part of water main renewal projects, emergency repairs of water service lines, and for customers that request full replacement as part of the Voluntary Lead Service Replacement (LSR) Program.

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

Pumping Facilities – Rehabilitate or upgrade water-pumping stations in the system. All four water pump stations have completed major upgrades within the last fifteen years, and only minor projects are anticipated for the near future.

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 redundant service during unplanned outages.

DDOT – Projects for the relocation, rehabilitation, replacement and extension of water mains, for which the work is completed under the District of Columbia’s District Department of Transportation (DDOT) construction contracts for street paving or reconstruction. This program is being closed and combined with distribution projects.

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

ACCOMPLISHMENTS

- The water service area continues to install small diameter water mains to meet the DC Water Board goal of renewing 1 percent of the system annually. This renewal includes a combination of replacement with new water mains to reduce water quality degradation from tuberculation, reduce the likelihood of water main breaks and increase the service life the small diameter water mains.
- DC Water continues its Pipe Condition Assessment (PCA) of large diameter water mains. The assessments include detailed field inspection and leak detection of high-risk water transmission mains. Recommendations for rehabilitation result in targeted capital projects to address the identified pipe sections in need of replacements or refurbishments.
- The new St. Elizabeth Water Tower and associated work, completed late in FY 2018, had continuing elements in FY 2019 to provide improved fire protection for the neighborhoods around Congress Heights.
- Extensive coordination occurred with the South Capitol Street Bridge project to relocate water mains and protect critical transmission mains. System improvements to mitigate risk during construction began and were completed in FY 2019. Similar work will continue on for two more years.

OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS

Water Mains – During FY 2019, the Authority continued renewal of small diameter water pipes with the goal of 1% annual renewal. Large water main rehabilitation projects continued with two projects using internal structural repair techniques on the existing transmission system, and began specific planning for two more projects. 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 – One major reservoir upgrade project had construction start in FY 2019 with the purpose of maintaining regulatory compliance as well as for operational improvements. We are continuing with minor pump station upgrades and improvements to operational procedures which serve to reduce maintenance costs and avoid the need for major upgrades later.

(\$ in thousands)

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
DISTRIBUTION SYSTEMS														
C9 Large Diameter Water Mains 1	\$3,113	\$4,262	\$73	\$171	\$2,596	\$1,320	\$0	\$0	\$0	\$0	\$0	\$8,422	\$19,785	2024
DE Small Diameter Water Main Rehabilitation 12	\$4,697	\$5,703	\$4,110	\$3,959	\$3,115	\$0	\$0	\$0	\$0	\$0	\$0	\$16,888	\$48,375	2023
FI Small Diameter Water Main Rehabilitation 13	\$31	\$6,737	\$19,863	\$1,719	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,319	\$41,070	2022
F2 Small Diameter Water Main Rehabilitation 14	\$674	\$1,586	\$23,846	\$8,476	\$5,763	\$994	\$0	\$0	\$0	\$0	\$0	\$40,664	\$57,778	2024
F6 Steel Water Main Rehabilitation - Rehabilitation 1	\$0	\$135	\$239	\$4,091	\$866	\$0	\$0	\$0	\$0	\$0	\$0	\$5,331	\$12,139	2023
FE 20 Low Service Main & Pressure Reducing Valve	\$252	\$8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8	\$8,534	2020
FT Water Mains Rehabilitation Phase II	\$895	\$3,561	\$5,297	\$4,237	\$5,619	\$4,098	\$1,543	\$211	\$0	\$0	\$0	\$24,567	\$35,556	2026
GQ Fire Hydrant Replacement Program - Phase II	\$1,380	\$922	\$41	\$6	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$971	\$28,516	2026
GR Small Diameter Water Main Rehabilitation 15	\$0	\$1,976	\$5,552	\$25,711	\$4,418	\$0	\$0	\$0	\$0	\$0	\$0	\$37,658	\$52,000	2023
HX Small Diameter Water Main Rehabilitation 16	\$0	\$497	\$663	\$9,576	\$19,038	\$4,798	\$0	\$0	\$0	\$0	\$0	\$34,573	\$52,000	2024
I8 Large Valve Replacement (Contract 11-13)	\$835	\$466	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$466	\$19,614	2020
JZ Large Diameter Water Main Replacement 3 - 4 & 5	\$0	\$0	\$479	\$1,922	\$7,641	\$15,967	\$18,294	\$11,252	\$2,362	\$0	\$0	\$37,917	\$81,320	2027
K7 Large Diameter Water Main Replacement 6 - 7 & 8	\$0	\$0	\$0	\$0	\$0	\$465	\$1,973	\$8,374	\$17,386	\$21,287	\$13,945	\$63,428	\$89,140	2030
K8 Large Diameter Water Main Replacement 9 - 10 & 11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$397	\$1,803	\$8,079	\$10,279	\$76,400	2033
KE Small Diameter Water Main Rehabilitation 18	\$0	\$0	\$234	\$937	\$13,181	\$11,738	\$0	\$0	\$0	\$0	\$0	\$26,090	\$46,340	2025
KF Small Diameter Water Main Rehabilitation 19	\$0	\$0	\$0	\$297	\$1,590	\$16,702	\$20,668	\$4,856	\$0	\$0	\$0	\$44,113	\$59,950	2026
KG Small Diameter Water Main Rehabilitation 20	\$0	\$0	\$0	\$0	\$230	\$1,427	\$18,060	\$19,880	\$5,064	\$113	\$0	\$44,774	\$61,100	2028
KH Small Diameter Water Main Rehabilitation 21	\$0	\$0	\$0	\$0	\$0	\$228	\$1,522	\$17,103	\$19,995	\$5,736	\$113	\$44,696	\$63,300	2029
KI Small Diameter Water Main Rehabilitation 22	\$0	\$0	\$0	\$0	\$0	\$0	\$245	\$1,471	\$17,970	\$23,693	\$5,988	\$49,368	\$64,520	2030
KJ Small Diameter Water Main Rehabilitation 23	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$230	\$1,503	\$21,051	\$24,478	\$47,263	\$66,780	2031
KK Small Diameter Water Main Rehabilitation 24	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$230	\$1,729	\$21,446	\$23,405	\$68,080	2032
KL Small Diameter Water Main Rehab 25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,238	\$3,184	\$10,422	\$76,750	2032
MV Small Diameter Water Main Rehabilitation 3	\$0	\$41	\$62	\$1,331	\$562	\$0	\$0	\$0	\$0	\$0	\$0	\$1,996	\$15,677	2023
O1 Small Diameter Water Main Rehabilitation 9	\$1,955	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2	\$26,170	2020
O2 Small Diameter Water Main Rehabilitation 10	\$2,328	\$3,143	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,143	\$38,292	2021
O3 Small Diameter Water Main Rehabilitation 11	\$6,219	\$4,193	\$5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,199	\$41,496	2021
QF District Metering	\$0	\$0	\$0	\$172	\$452	\$805	\$1,188	\$1,317	\$1,167	\$945	\$572	\$6,618	\$9,930	2031
S3 Large Valve Replacement (Contract 3-7)	\$0	\$640	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$640	\$23,181	2022
U5 WSSC Interconnection Project	\$0	\$0	\$0	\$0	\$18	\$111	\$881	\$656	\$0	\$0	\$0	\$1,665	\$7,460	2026
KM Small Diameter Water Main Rehab 26	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,326	\$58,700	2033
RY Small Diameter Water Main FY27-FY29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$33,000	\$34,000	\$35,000	\$102,000	\$102,000	2029
TOTAL DISTRIBUTION SYSTEMS BUDGETS	\$22,378	\$33,872	\$60,464	\$62,606	\$65,093	\$58,654	\$64,372	\$65,350	\$99,075	\$117,595	\$121,131	\$748,211	\$1,446,953	

(\$ in thousands)

	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
LEAD PROGRAM														
BW	\$4,099	\$4,711	\$5,408	\$5,387	\$5,456	\$5,627	\$5,719	\$5,496	\$5,744	\$5,877	\$5,692	\$55,117	\$243,504	2038
TOTAL LEAD PROGRAM BUDGETS	\$4,099	\$4,711	\$5,408	\$5,387	\$5,456	\$5,627	\$5,719	\$5,496	\$5,744	\$5,877	\$5,692	\$55,117	\$243,504	
ON-GOING														
D5 FY 2014 - DWS Water Projects	\$117	\$201	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$201	\$10,248	2020
DY FY 2016 - DWS Water Projects	\$111	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2	\$10,330	2020
FK FY 2017 - DWS Water Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,568	2021
GS FY 2018 - DWS Water Projects	\$4,505	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,704	2021
HY FY 2019 - DWS Water Projects	\$3,560	\$3,344	\$30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,375	2021
JA FY 2020 - DWS Water Projects	\$0	\$5,524	\$1,057	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,581	2021
KW FY 2021 - DWS Water Projects	\$0	\$0	\$9,118	\$35	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,153	2022
KX FY 2022 - DWS Water Projects	\$0	\$0	\$0	\$10,290	\$34	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,630	2022
KY FY 2023 - DWS Water Projects	\$0	\$0	\$0	\$0	\$11,158	\$35	\$0	\$0	\$0	\$0	\$0	\$0	\$11,193	2024
KZ FY 2024 - DWS Water Projects	\$0	\$0	\$0	\$0	\$12,754	\$38	\$0	\$0	\$0	\$0	\$0	\$0	\$12,792	2025
L1 FY 2025 - DWS Water Projects	\$0	\$0	\$0	\$0	\$0	\$13,902	\$32	\$0	\$0	\$0	\$0	\$0	\$13,934	2026
L2 FY 2026 - DWS Water Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$15,398	\$0	\$0	\$0	\$0	\$0	\$15,398	2026
L6 FY 2027 - DWS Water Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,120	\$0	\$0	\$0	\$0	\$17,120	2027
L7 FY 2028 - DWS Water Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$19,145	\$0	\$0	\$0	\$19,145	2028
QJ DDCS Water Pumping and Storage Projects FY19-21	\$0	\$1,460	\$870	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,330	2021
QK DDCS Water Pumping and Storage Projects FY22-28	\$0	\$0	\$0	\$1,973	\$2,159	\$2,411	\$2,849	\$3,153	\$3,327	\$3,836	\$0	\$0	\$19,706	2028
L8 FY 2029 - DWS Water Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$23,506	\$23,506	\$12,990	2030
TOTAL ON-GOING BUDGETS	\$8,293	\$10,532	\$11,075	\$12,297	\$13,351	\$15,199	\$16,789	\$18,583	\$20,447	\$22,981	\$23,506	\$164,761	\$217,972	
PUMPING FACILITIES														
AY Upgrades to Fort Reno Pumping Station	\$3	\$764	\$252	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,116	\$14,041	2022
FD Water Facility Security System Upgrades	\$64	\$46	\$30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$76	\$76	\$2,132	2021
FH Discharge Piping Bryant Street Pumping Station	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,720	2020
HI Bryant Street Pump Station Phase III	\$0	\$0	\$0	\$0	\$304	\$475	\$1,652	\$3,279	\$0	\$0	\$0	\$5,710	\$6,620	2026
HR Anacostia Pump Station Improvements Phase II	\$0	\$0	\$0	\$0	\$160	\$190	\$788	\$2,837	\$105	\$0	\$0	\$4,080	\$4,700	2027
HV Bryant Street Pump Station - Spill Header Flow Control	\$234	\$319	\$1,116	\$4,758	\$2,426	\$141	\$0	\$0	\$0	\$0	\$0	\$5,719	\$7,845	2024
JB Bryant Street PS Improvements - Phase II	\$173	\$376	\$958	\$3,482	\$1,529	\$0	\$0	\$0	\$0	\$0	\$0	\$6,420	\$12,178	2023
LT Water System SCADA	\$0	\$0	\$0	\$125	\$392	\$606	\$390	\$266	\$0	\$0	\$0	\$6,345	\$8,364	2023
LU Water Facilities Security System Upgrades 2	\$0	\$0	\$0	\$0	\$0	\$36	\$262	\$344	\$3,338	\$1,608	\$0	\$1,779	\$2,000	2026
OR Fort Reno Pump Station Improvements Phase II	\$0	\$0	\$0	\$0	\$0	\$721	\$720	\$720	\$720	\$720	\$0	\$5,588	\$6,430	2028
OW Water System Sensor Program (WaSSP)	\$0	\$0	\$0	\$720	\$719	\$721	\$720	\$720	\$720	\$720	\$0	\$5,040	\$5,600	2028
PS Existing Water Facilities Building Optimization	\$0	\$0	\$0	\$142	\$458	\$0	\$0	\$0	\$0	\$0	\$0	\$600	\$695	2023
S6 West Venturi Meter - Bryant Street Pumping Station	\$0	\$0	\$0	\$4	\$69	\$398	\$406	\$0	\$0	\$0	\$0	\$877	\$1,020	2025
TOTAL PUMPING FACILITIES BUDGETS	\$473	\$1,525	\$2,650	\$12,169	\$6,284	\$2,567	\$4,218	\$7,446	\$4,163	\$2,328	\$0	\$43,350	\$85,344	

(\$ in thousands)

DDOT	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
B0	\$18	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,171	2021
BN	\$150	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,738	2021
CJ	\$33	\$752	\$8	\$8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$768	\$6,474	2022
CM	\$122	\$969	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$971	\$1,549	2021
TOTAL DDOT BUDGETS	\$324	\$1,721	\$10	\$8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,739	\$33,933	

STORAGE FACILITIES	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
FA	\$1,029	\$3,977	\$2,938	\$2,721	\$337	\$0	\$0	\$0	\$0	\$0	\$0	\$9,973	\$37,383	2023
HW	\$0	\$0	\$145	\$422	\$1,043	\$2,547	\$1,567	\$637	\$0	\$0	\$0	\$6,361	\$7,000	2026
MA	\$4,104	\$2,037	\$784	\$5,329	\$4,914	\$0	\$0	\$0	\$0	\$0	\$0	\$13,064	\$47,055	2023
MQ	\$89	\$202	\$65	\$248	\$336	\$1,117	\$1,512	\$1,725	\$732	\$0	\$0	\$5,937	\$9,720	2027
MR	\$76	\$0	\$0	\$72	\$96	\$626	\$1,287	\$6,495	\$4,324	\$0	\$0	\$12,900	\$17,034	2027
QG	\$0	\$0	\$386	\$1,607	\$7,237	\$1,320	\$417	\$2,411	\$3,695	\$0	\$0	\$17,073	\$19,171	2027
RX	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$66	\$234	\$694	\$1,360	\$2,354	\$17,800	2036
TOTAL STORAGE FACILITIES BUDGETS	\$5,298	\$6,216	\$4,318	\$10,399	\$13,963	\$5,610	\$4,783	\$11,334	\$8,985	\$694	\$1,360	\$67,662	\$155,164	

PROGRAM MANAGEMENT	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget	Completion
KV	\$0	\$2,356	\$3,585	\$5,001	\$4,498	\$3,086	\$730	\$0	\$0	\$0	\$0	\$19,256	\$30,610	2025
LB	\$0	\$0	\$0	\$0	\$0	\$2,161	\$5,154	\$8,110	\$8,376	\$5,441	\$3,008	\$32,250	\$35,480	2029
LQ	\$8	\$129	\$126	\$126	\$126	\$0	\$0	\$0	\$0	\$0	\$0	\$507	\$5,000	2023
ME	\$4,437	\$1,102	\$1,041	\$885	\$230	\$1	\$0	\$0	\$0	\$0	\$0	\$3,259	\$19,854	2024
TOTAL PROGRAM MANAGEMENT BUDGETS	\$4,445	\$3,587	\$4,752	\$6,012	\$4,854	\$5,248	\$5,884	\$8,110	\$8,376	\$5,441	\$3,008	\$55,272	\$90,944	

TOTAL WATER BUDGETS	FY 2019 Actual	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Lifetime Budget
	\$45,310	\$62,163	\$88,677	\$108,878	\$109,000	\$92,905	\$101,765	\$116,319	\$146,791	\$154,916	\$154,697	\$1,136,112	\$2,273,813

(\$ in thousands)

	FY 2019 Actual	FY 2020 - FY 2029 Disbursement Plan										Lifetime Budget	
		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029		10-Yr Total
CAPITAL EQUIPMENT	\$21,367	\$31,703	\$37,207	\$33,790	\$32,315	\$33,000	\$33,000	\$33,000	\$33,000	\$33,000	\$33,000	\$333,015	\$333,015
WASHINGTON AQUEDUCT	\$10,847	\$15,515	\$16,266	\$18,572	\$37,841	\$12,699	\$33,875	\$9,508	\$12,863	\$24,068	\$13,971	\$195,178	\$195,178
ADDITIONAL CAPITAL PROGRAMS	\$32,215	\$47,218	\$53,473	\$52,362	\$70,156	\$45,699	\$66,875	\$42,508	\$45,863	\$57,068	\$46,971	\$528,193	\$528,193



Sink Hole Rehabilitation



Mobile Command Center



Meter Replacement Program

Overview

Additional Capital Programs is a subset of DC Water’s Capital Improvement Program (CIP) and is comprised of Capital Equipment and the Washington Aqueduct.

Capital Equipment – This category accounts for over 60% of the Additional Capital Programs budget and includes capital equipment purchases, refurbishment, replacement and enhancement of operational facilities, vehicle equipment, office renovations, mechanical equipment, and Information Technology (IT) software/hardware needs. The current capital equipment disbursement budget includes the following cluster groups:

- Administration** – Capital equipment within this cluster are primarily for the departments of Emergency Management, Facilities Management, Fleet Management, Security, and Safety. The activities/purchases include, plumbing, elevators, photocopiers, appliances, furniture, vehicles, buses, vacuum trucks, boats, backhoes, cranes, trailers, forklifts, fire suppression system equipment, renovations, cameras, and sensors.
- Customer Experience** – The cluster is comprised of the following departments: Customer Care, and Information Technology (IT). The Customer Care activities/purchases support the enhancements, replacements, and upgrades of residential and commercial water meters. The IT activities are for equipment purchases for infrastructure and enterprise projects which include: laptops, cabling, radios, servers, telephones, and software applications.
- Finance and Procurement** – This cluster includes the departments of Finance, and Procurement & Compliance. The activities/purchases are primarily for reserve funds to support additional capital equipment needs for new facilities, unplanned emergencies, and capital equipment requiring long-lead times.

- Operations & Engineering** – This cluster is comprised of Wastewater Operations, Water Operations, Sewer Operations, and Engineering. The capital equipment activities/purchases support work attributable to rehabilitation, replacement, and continuous improvements or enhancements for pumps, screens, large motors, centrifuges, process control systems, actuators, flow meters, and Supervisory Control and Data Acquisition (SCADA) hardware. In addition, it includes the purchases of pipes/fittings, manhole covers/frames, sewer cameras, generators, and various other equipment for the plant, distribution and collection systems.

Washington Aqueduct – The Washington Aqueduct, managed by the U.S. Army Corps of Engineers (USACE), provides wholesale water treatment services to DC Water and wholesale customers in Northern Virginia, (Arlington County and Fairfax County Water Authority). DC Water purchases approximately 74 percent of the water produced by the Aqueduct’s two treatment facilities, the Dalecarlia and McMillan Treatment Plants, and thus is responsible for approximately 74 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 inherited a much greater role in oversight of the Aqueduct’s operations and its Capital Improvement Program, than prior to 1997.

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 National Pollutant Discharge Elimination System (NPDES) permit (including the residuals project) to a separate escrow account, allowing the Aqueduct customers to retain interest on these funds. The proposal was submitted in May 2006 to the Senate and House. During FY 2006, the 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 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.

DC Water’s share of Washington Aqueduct’s infrastructure improvements to achieve established service levels for FY 2020 – FY 2029 is \$195.2 million. The increased investments of \$8.1 million funds Washington Aqueduct’s risk-based asset management CIP, except the following projects: Federally Owned Water Mains, Travilah Quarry Acquisition Outfitting, and Advanced Treatment.



(\$ in thousands)

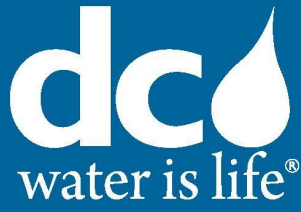
Additional Capital Programs

summary overview financial plan rates&rev capital financing departmental glossary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total
FY 2019 Actual											
CAPITAL EQUIPMENT											
OPERATIONS & ENGINEERING											
WASTEWATER OPERATIONS											
EQP4710 Wastewater Operations	\$100	\$100	\$100	\$100	-	-	-	-	-	-	\$400
EQP4730 Wastewater Process Engineering	\$350	\$425	\$425	\$425	-	-	-	-	-	-	\$1,625
EQP4830 Maintenance Services	\$3,120	\$3,920	\$4,040	\$4,190	-	-	-	-	-	-	\$15,270
EQP4210 Pumping Services	\$1,650	\$1,900	\$1,950	\$2,000	-	-	-	-	-	-	\$7,500
Subtotal	\$5,220	\$6,345	\$6,515	\$6,715	-	-	-	-	-	-	\$24,795
WATER OPERATIONS											
EQP4410 Water Operations	\$735	\$800	\$800	\$900	-	-	-	-	-	-	\$3,235
Subtotal	\$735	\$800	\$800	\$900	-	-	-	-	-	-	\$3,235
SEWAGE OPERATIONS											
EQP4610 Sewer Operations	\$260	\$235	\$235	\$235	-	-	-	-	-	-	\$965
Subtotal	\$260	\$235	\$235	\$235	-	-	-	-	-	-	\$965
ENGINEERING											
EQP4310 Engineering & Technical Services	\$20	\$492	\$25	\$25	-	-	-	-	-	-	\$562
Subtotal	\$20	\$492	\$25	\$25	-	-	-	-	-	-	\$562
FINANCE & PROCUREMENT											
FINANCE											
EQP2410 Finance, Accounting & Budget Reserve Fund	\$10	\$10	\$10	\$10	-	-	-	-	-	-	\$40
EQP2411	\$3,000	\$5,600	\$8,000	\$9,000	\$30,070	\$30,070	\$30,070	\$30,070	\$30,070	\$30,070	\$206,020
EQP2412 HQO	-	-	-	-	-	-	-	-	-	-	\$0
Subtotal	\$3,010	\$5,610	\$8,010	\$9,010	\$30,070	\$30,070	\$30,070	\$30,070	\$30,070	\$30,070	\$206,060
CUSTOMER EXPERIENCE											
CUSTOMER CARE											
EQP2340 AMR Replacement	\$2,880	-	-	-	-	-	-	-	-	-	\$2,880
EQP2350 On-Going Replacement	\$2,618	\$2,930	\$2,930	\$2,930	\$2,930	\$2,930	\$2,930	\$2,930	\$2,930	\$2,930	\$28,988
Subtotal	\$5,498	\$2,930	\$2,930	\$2,930	\$2,930	\$2,930	\$2,930	\$2,930	\$2,930	\$2,930	\$31,868
INFORMATION TECHNOLOGY											
EQP2110 IT Infrastructure	\$2,640	\$2,600	\$3,000	\$2,600	-	-	-	-	-	-	\$10,840
EQP2115 IT Enterprise Technology	\$8,540	\$9,450	\$3,875	\$3,500	-	-	-	-	-	-	\$25,365
Subtotal	\$11,180	\$12,050	\$6,875	\$6,100	-	-	-	-	-	-	\$36,205
ADMINISTRATION											
EQP3410 Facilities Management	\$1,805	\$1,845	\$1,700	\$1,700	-	-	-	-	-	-	\$7,050
EQP3610 Security	\$515	\$850	\$650	\$650	-	-	-	-	-	-	\$2,665
EQP3810 Emergency Management	-	\$50	\$50	\$50	-	-	-	-	-	-	\$150
EQP5610 Fleet Management	\$3,460	\$6,000	\$6,000	\$4,000	-	-	-	-	-	-	\$19,460
Subtotal	\$5,780	\$8,745	\$8,400	\$6,400	-	-	-	-	-	-	\$29,325
TOTAL CAPITAL EQUIPMENT	\$31,703	\$37,207	\$33,790	\$32,315	\$33,000	\$33,000	\$33,000	\$33,000	\$33,000	\$33,000	\$333,015
WASHINGTON AQUEDUCT	\$15,515	\$16,266	\$18,572	\$37,841	\$12,699	\$33,875	\$9,508	\$12,863	\$24,068	\$13,971	\$195,178
TOTAL ADDITIONAL CAPITAL PROGRAMS	\$47,218	\$53,473	\$52,362	\$70,156	\$45,699	\$66,875	\$42,508	\$45,863	\$57,068	\$46,971	\$528,193



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Approved FY 2021 Budgets

Section VI: CAPITAL FINANCING, CASH AND DEBT



Cambi Digesters



\$ in thousands

DC Water relies on several funding sources to finance its capital projects and cash flow needs. The process of identifying, obtaining, and managing these funds, is a combined effort throughout the Authority. This includes future revenues, collections, grant applications, planning, and debt service management. Below is the list of various funding sources and percentage contribution, to support DC Water’s overall CIP needs.

Approximately 69% percent of DC Water’s Capital Program is funded by debt and pay-go, 19% of the funds is contributed by the wholesale capital payments, and the remaining estimated 12% funds comes from other available funds.

Ten-year Sources of Funds	Amount	Percentage
Debt Financing (1)	\$ 2,400,143	43.6%
Wholesale Capital Payment	1,042,707	18.9%
EPA Grants & CSO Appropriation	158,393	2.9%
Interest Income on Bond Proceeds	29,220	0.5%
Pay-Go Financing (2)	1,393,285	25.3%
Clean Rivers Impervious Area Charge (CRIAC)	406,440	7.4%
System Availability Fee (SAF)	75,075	1.4%
Total	\$ 5,505,263	100%

- 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



Funds Summary

\$ in thousands

Sources and Uses of Funds

	FY 2019 Actual	FY 2020 Approved	FY 2020 Revised	FY 2021 Approved
Sources				
Beginning Balance	\$ 282,107	\$ 143,688	\$ 72,281	\$ 158,584
New Debt Proceeds / Commercial Paper / EMCP ⁽¹⁾	\$ -	\$ 180,716	\$ 300,000	\$ 300,000
System Availability Fee (SAF)	2,006	5,775	5,775	7,700
Clean Rivers Impervious Area Charge (CRIAC)	29,932	34,769	29,347	35,675
Pay-Go Financing	82,042	69,083	95,231	90,252
EPA Grants	14,175	38,990	32,700	28,464
CSO Appropriation	8,000	-	-	-
Wholesale Customer Capital Contributions	48,636	67,321	71,640	95,205
Interest Income	4,749	3,658	3,831	6,365
Total Sources	\$ 189,541	\$ 400,311	\$ 538,524	\$ 563,661
Uses				
Water Projects	\$ 45,310	\$ 71,721	\$ 62,163	\$ 88,677
Wastewater Treatment	53,127	66,620	77,536	102,976
Sanitary Sewer Treatment	36,224	43,646	44,933	63,926
Combined Sewer & LTCP Projects	221,752	151,427	171,436	157,058
Stormwater Projects	2,210	8,571	6,869	9,631
Non-Process Facilities	8,529	36,002	42,066	31,849
Washington Aqueduct	10,847	15,532	15,515	16,266
Capital Equipment	17,225	17,105	17,105	27,327
Meter Replacement / AMR/ CIS	4,142	9,718	14,598	9,880
Total Uses	\$ 399,366	\$ 420,342	\$ 452,221	\$ 507,590
Ending Balance	\$ 72,281	\$ 123,657	\$ 158,584	\$ 214,655

(1) Commercial Paper and Extendable Municipal Commercial Paper are used for interim financing and capital equipment

Cash Reserve Summary

	FY 2019 Actual	FY 2020 Approved	FY 2020 Revised	FY 2021 Approved
Beg. O&M Reserve Balance (Net of Rate Stabilization Fund)	\$ 166,796	\$ 165,000	\$ 186,764	\$ 180,000
Operating Surplus	\$ 137,554	\$ 101,633	\$ 116,835	\$ 115,046
Wholesale Customer Prior Year Billing Reconciliation	(10,940)	(3,448)	(5,599)	(5,417)
Project Billing Refund	-	(4,000)	(4,000)	(4,000)
Federal Customer Prior Year Billing Reconciliation	(5,753)	1,317	227	2,233
Transfer to CAP Fund	(10,246)	-	-	-
DC Fleet reimbursement	1,719	-	-	-
Transfer to Rate Stabilization Fund	(6,000)	-	(13,000)	-
Interest Earned from Bond Proceeds	618	570	570	410
Pay-Go Capital Financing	(86,982)	(81,071)	(101,797)	(103,272)
Ending O&M Reserve Balance (Net of Rate Stabilization Fund)	\$ 186,764	\$ 180,000	\$ 180,000	\$ 185,000
Rate Stabilization Fund	\$ 61,450	\$ 55,450	\$ 74,450	\$ 71,950

\$ in thousands

Interest Rate Assumptions

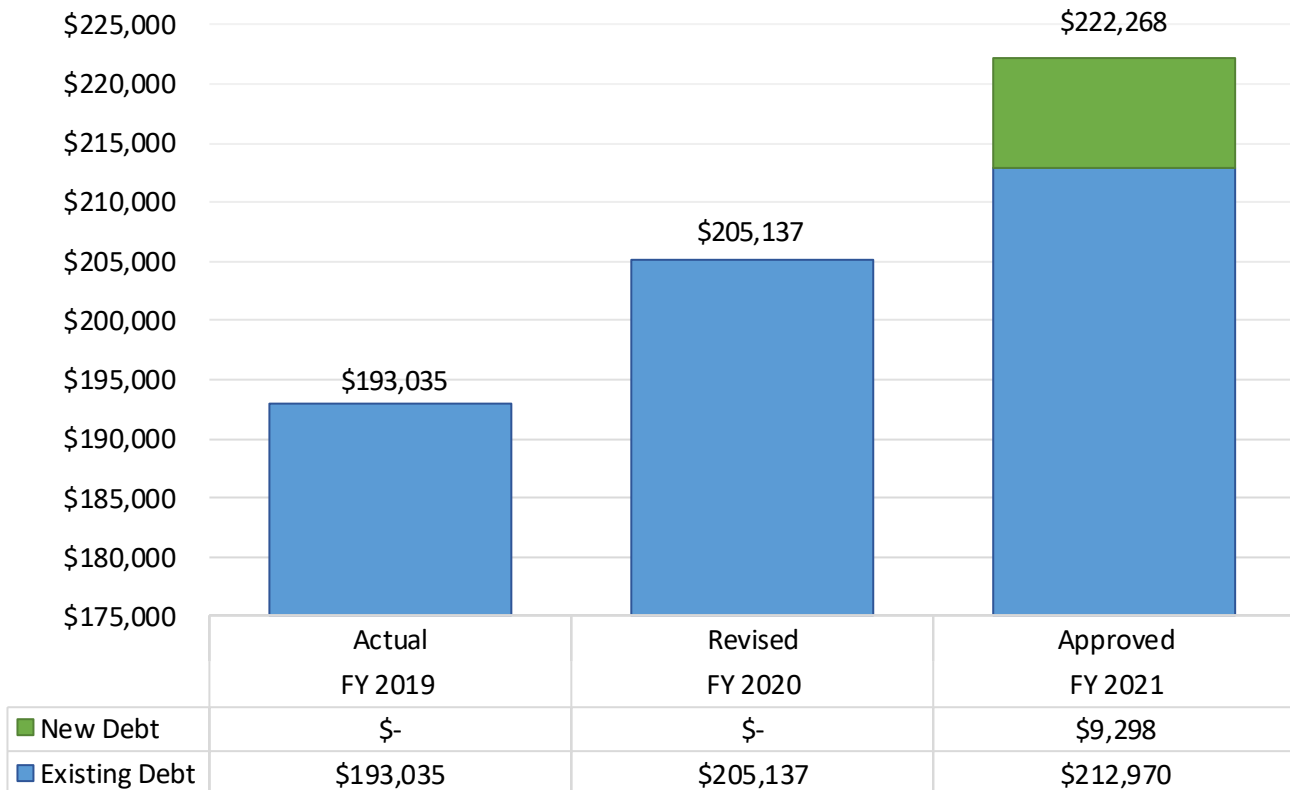
- Budget Appropriation and Financial Plan

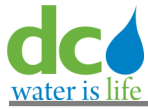
- 1) Variable rate
 - 2.50% in FY 2020 and FY 2021
- 2) Fixed rate
 - 5.50% in FY 2020 and 5.00% in FY 2021
 - Plus cost of issuance and insurance

Capital Financing Plan

- DC Water will issue debt for two purposes: 1) Finance the costs associated with the CIP and 2.) Re-fund existing debt to obtain Debt Service savings and/or restructure certain terms of existing debt. The key goals of DC Water’s comprehensive capital financing plans are to:
 - 1) Minimize the cost of capital
 - 2) Increase operational flexibility; and
 - 3) Optimize assets/liability matching through Interim Financing, Pay-Go Financing, and Federal Grants.

Debt Management FY 2019 - FY 2021





Debt Service Management

\$ in thousands

The chart below shows debt service payment of principal and interest for a three-year outlook.

Bond Series	FY 2019 Actual	FY 2020 Revised	FY 2021 Approved
Senior Lien			
Series 1998	\$ 23,281	\$ 23,368	\$ 23,365
2014A	16,749	16,849	16,849
2017A&B	16,973	17,845	17,848
2018A&B	18,279	18,324	18,324
Total Senior Lien	\$ 75,282	\$ 76,385	\$ 76,386
Subordinate Lien			
Series 2010A	\$ 10,864	\$ 15,456	\$ 15,564
Series 2012A,B-1,B-2&C	20,923	20,091	20,087
Series 2013A	14,905	-	-
Series 2014B	1,570	2,002	2,498
Series 2014C	17,895	30,302	30,348
Series 2015A&B	19,412	19,423	24,733
Series 2016	28,843	17,039	17,039
Series 2016B	853	858	835
Series 2019A&B	-	6,883	7,625
Series 2019C	-	1,572	1,741
Series 2019D	-	11,320	12,308
EMCP	856	1,500	1,500
Commercial Paper	827	1,500	1,500
Jennings Randolph Bond	805	805	805
Total Subordinate Lien	\$ 117,753	\$ 128,752	\$ 136,583
Proposed Debt Service	\$ -	\$ -	\$ 9,298
Total Debt Service	\$ 193,035	\$ 205,137	\$ 222,268

As of September 2019, DC Water received an upgrade to its Senior bond ratings from AA to AA+ by Fitch Ratings; this allows for a lower borrowing cost which in turn reduces ratepayer cost in the long run.

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



Debt Service Coverage

\$ in thousands

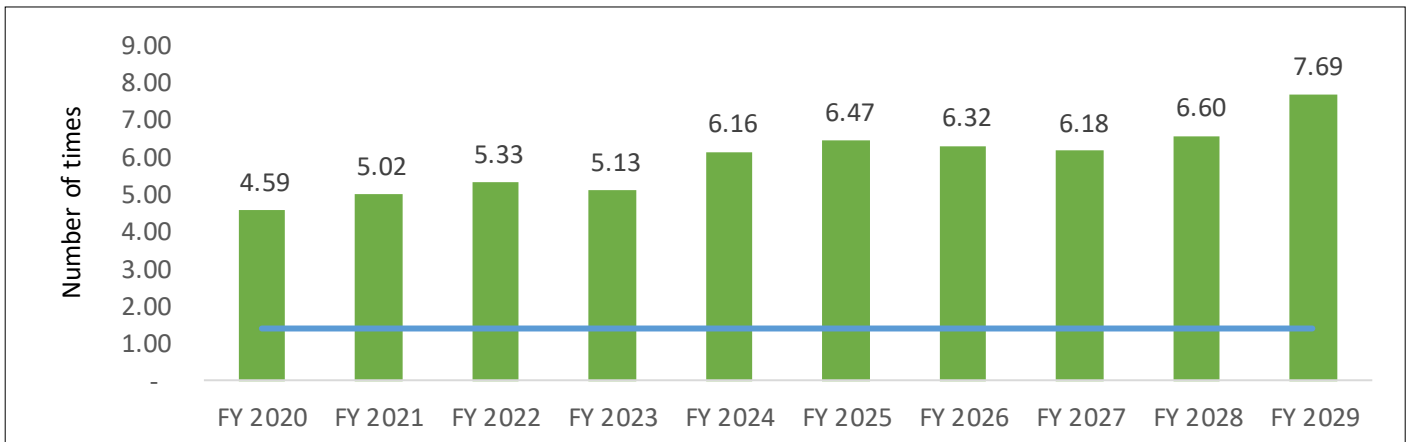
Debt Service Coverage (FY 2020 - FY 2029)

DC Water is authorized to issue additional debt only to the extent that it can satisfy the Debt Service Coverage (annual net revenues as a percent of annual debt service) requirements established in the Indenture and certain Board policies.

Debt level	Master Indenture	Board Resolution	Management Practice
Senior	120x	140x	140x
Subordinate	100x	100x	100x

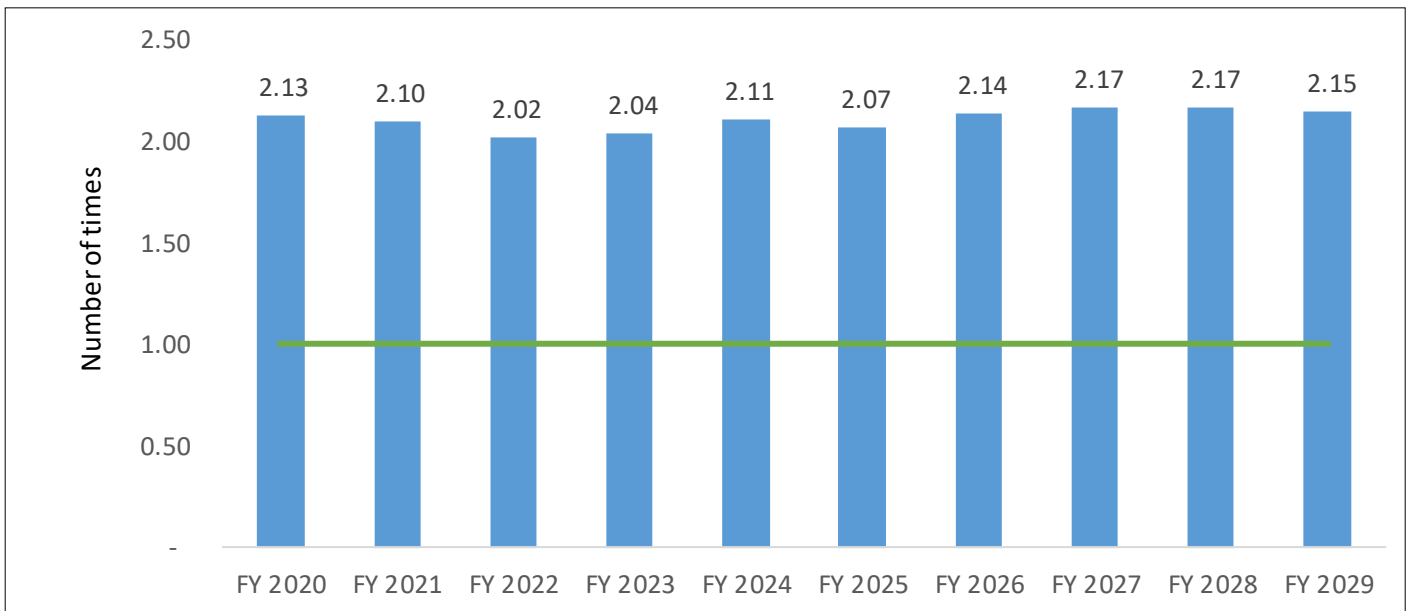
Senior Debt Service Coverage

Senior Debt Service Coverage (Management target = 140x)



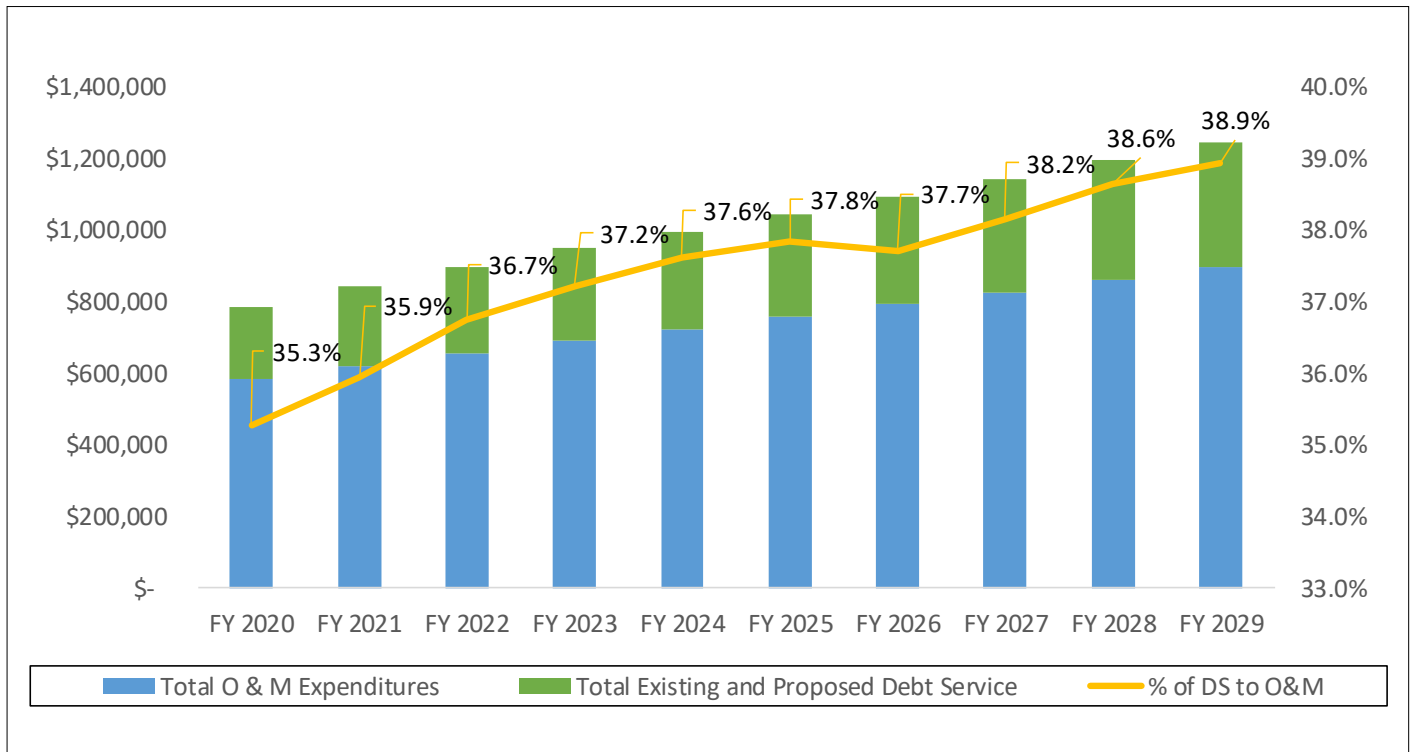
Subordinate Debt Service Coverage

Subordinate Debt Service (Board/Management target = 100x)

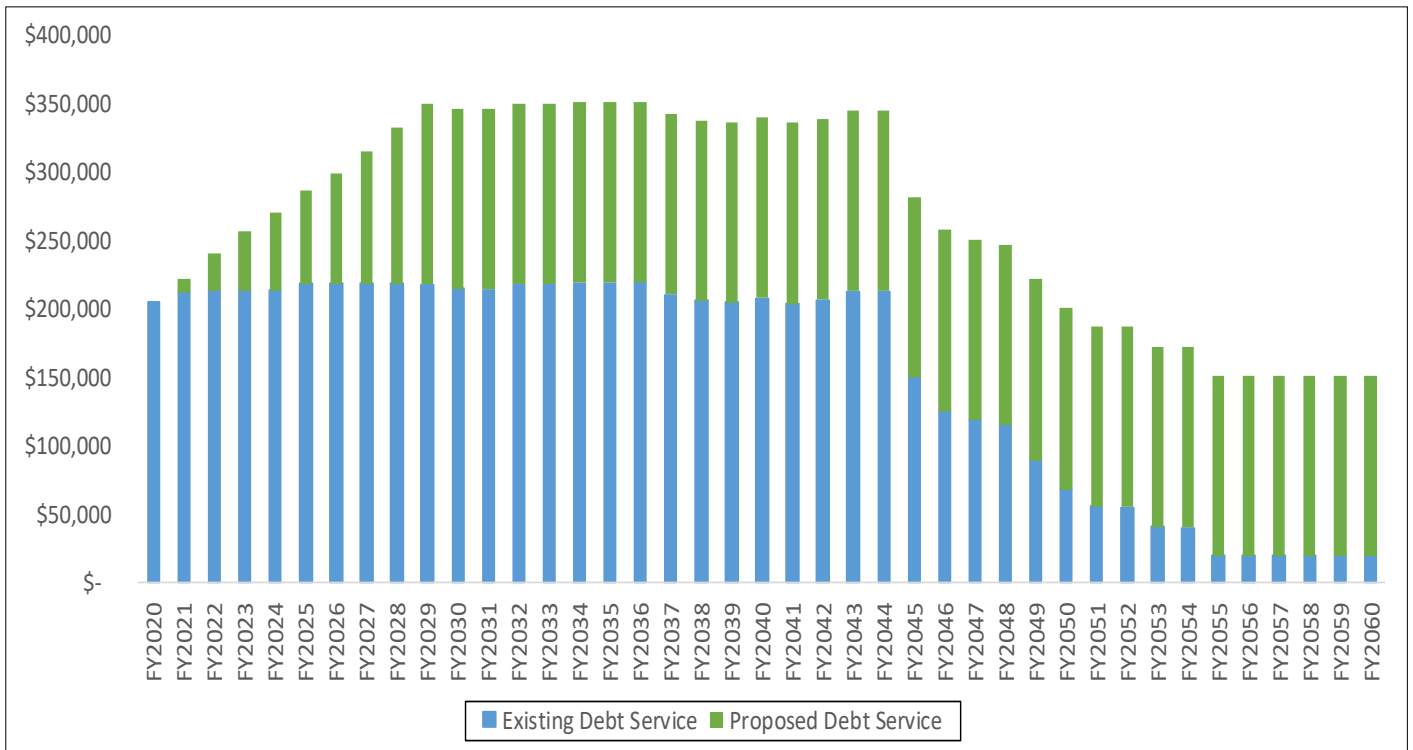


\$ in thousands

Debt Service as Percentage of O&M Expenditures

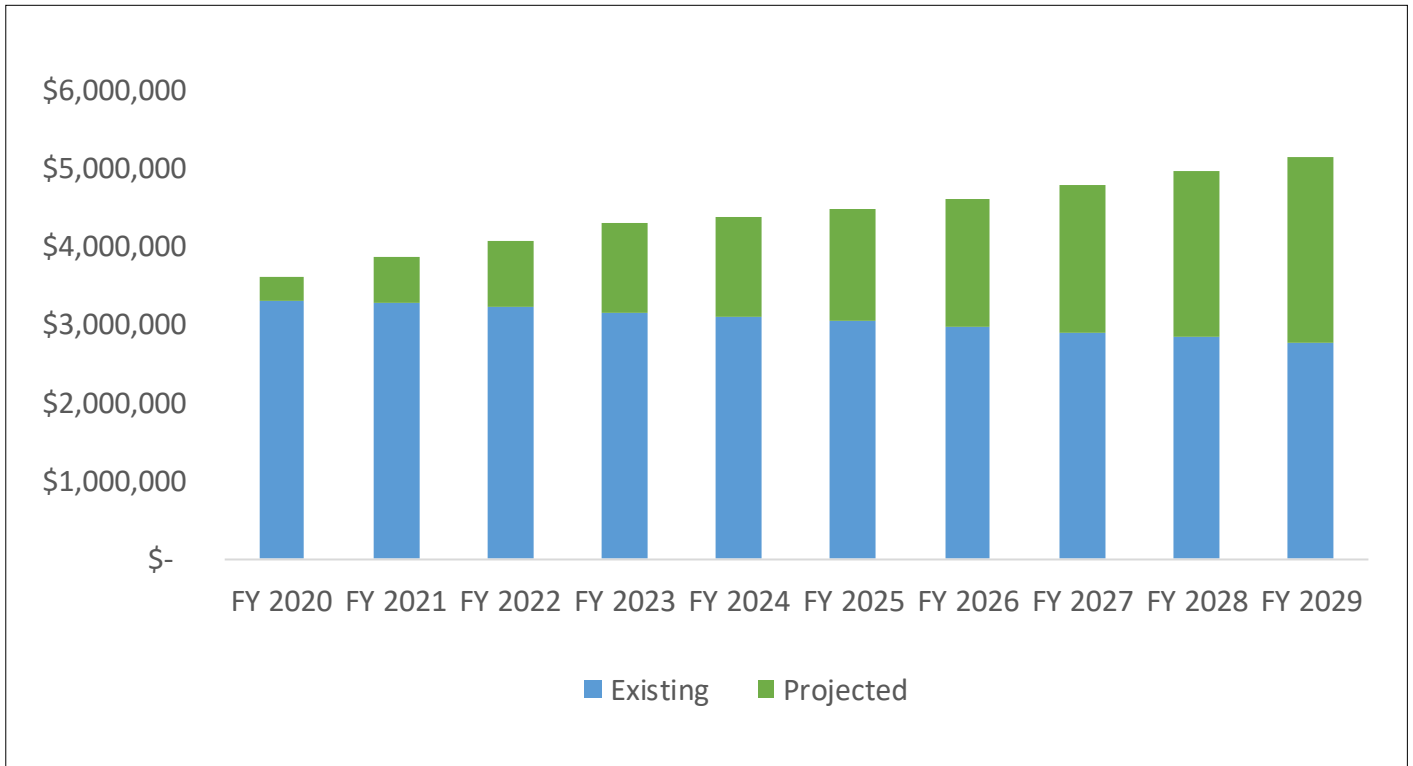


Total Long Term Outstanding & Proposed Debt Service

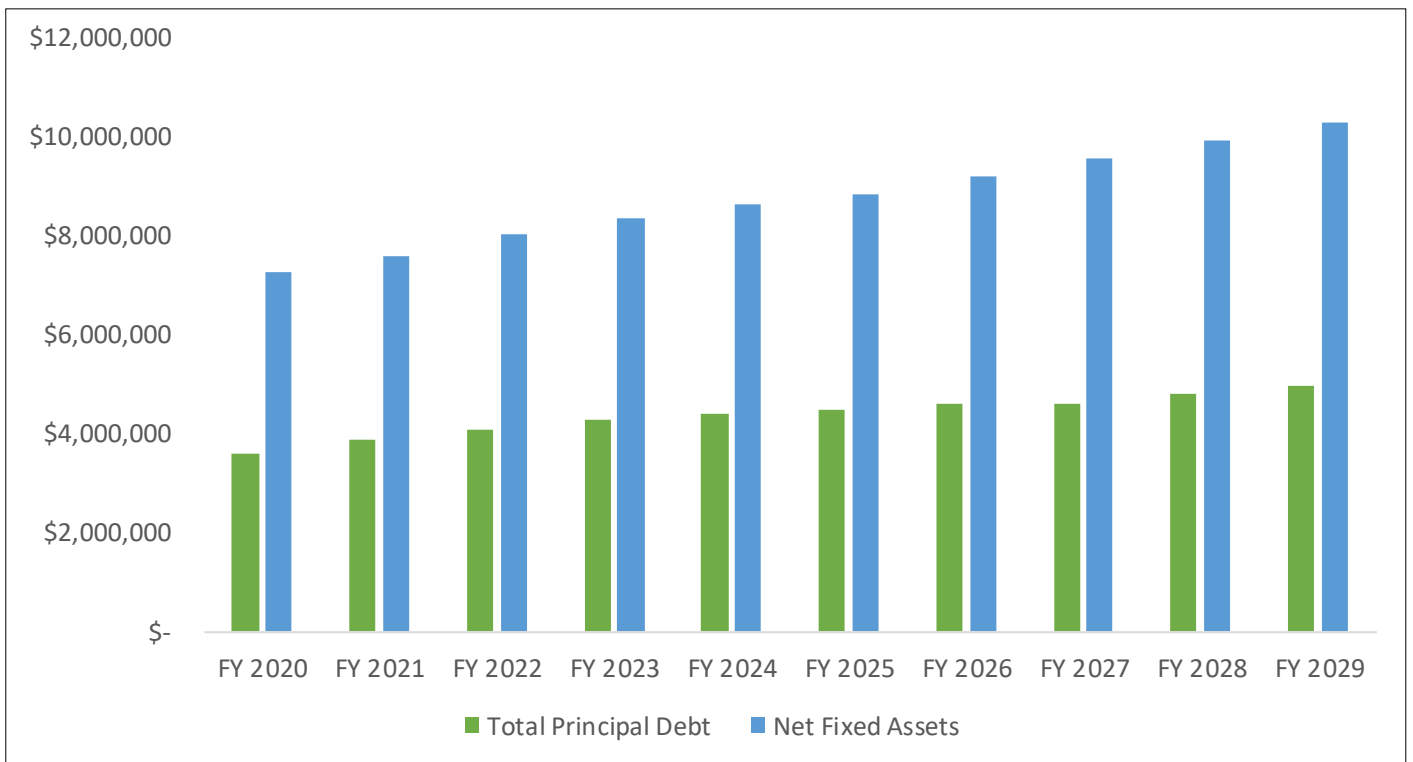


\$ in thousands

Principal Outstanding Debt

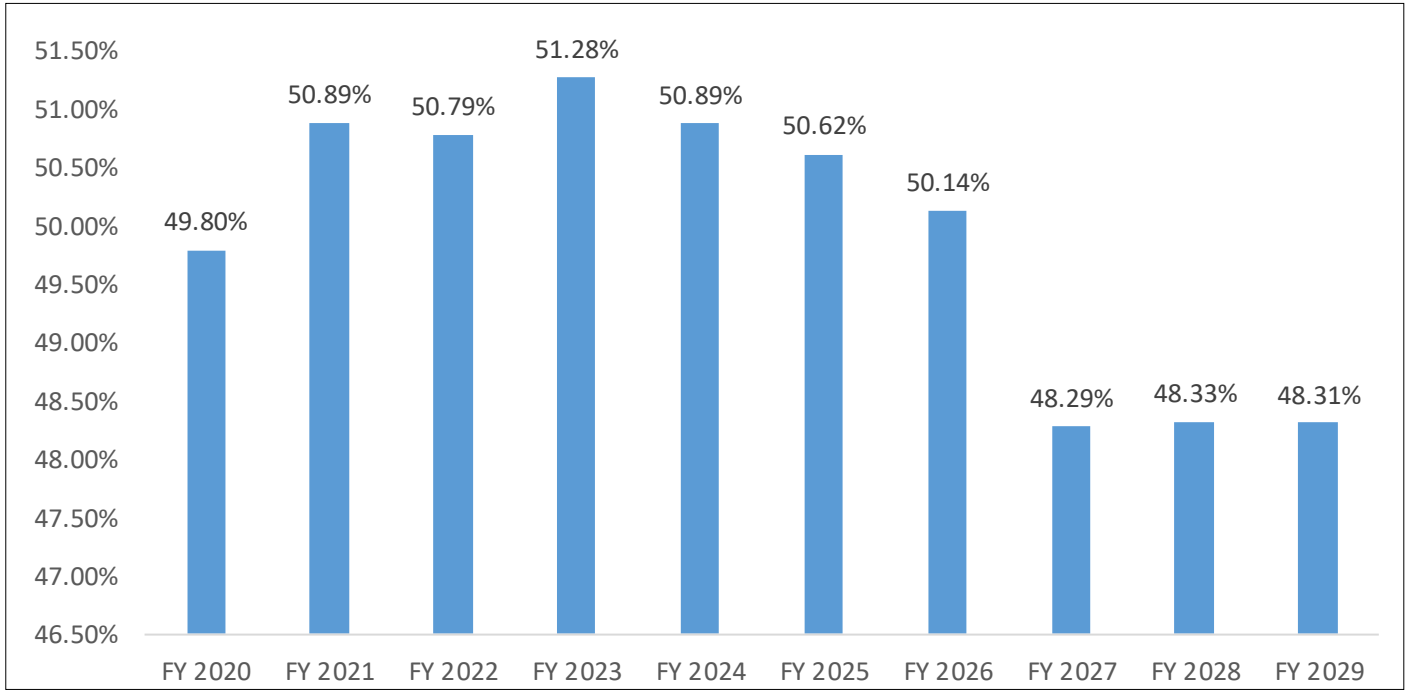


Principal vs Net Fixed Assets



\$ in thousands

Debt to Net Fixed Assets Ratio



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 (March 1998); 2) Series 2014A (July 2014); 3) Series 2017A (January 2017); 4) Series 2017B (January 2017); 5) Series 2018A (April 2018); 6) Series 2018B (April 2018)

PUBLIC UTILITY SUBORDINATE LIEN REVENUE BONDS: 1) Series 2012A (March 2012); 2) Series 2013A (July 2013); 3) Series 2014B (July 2014); 4) Series 2013A (July 2013); 5) Series 2014B (July 2014); 6) Series 2015A (October 2015); 7) Series 2015B (October 2015); 8) Series 2016B Environmental Impact Bond (September 2016); 9) Series 2019A (October 2019); 10) Series 2019B (October 2019); 11) Series 2019C (October 2019); and 12) Series 2019D Refunding (October 2019)

PUBLIC UTILITY SUBORDINATE LIEN REVENUE BONDS (FEDERALLY TAXABLE ISSUER SUBSIDY BUILD AMERICA BONDS): 1) Series 2010A (October 2010)

PUBLIC UTILITY SUBORDINATE LIEN REVENUE REFUNDING BONDS: 1) Series 2008A: (refunded Series 2004, Assured Guaranty insured, April 2008); 2) Series C taxable commercial paper: (refunded Series 2007B, April 2008); and 3) Series 2012C: (advance refunded Series 2003, March 2012); 4) Series 2014C: (advanced refunded all or a portion of Series 2007A, 2008A, 2009A, and 2012B, October 2014); 5) Series 2016A: (advanced refunded all or a portion of Series 2007A, 2008A, and 2009A, January 2016)

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

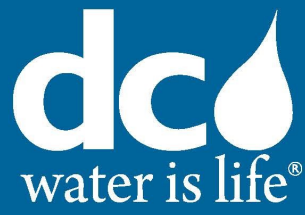
COMMERCIAL PAPER (CP): These notes issued are considered subordinate debt under the Master Indenture of Trust. DC Water's commercial paper program is issued in increments with maturities less than 270 days. As described in Section III, the Board approved the commercial paper program in early FY 2002; 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

May 2020, DC Water authorized the Letter of Credit facility to TD Bank, NA. Additionally, DC Water successfully extended JP Morgan Chase Bank as the authorized dealer and US Bank as the Issuing Paying Agent. The \$150 million commercial paper program includes: (1) Series B (tax-exempt) aggregate principal amount not to exceed \$100 million; and (2) Series C (taxable) aggregate principal amount not to exceed \$50 million

EXTENDABLE MUNICIPAL COMMERCIAL PAPER (EMCP): This program will provide interim financing for a portion of the Authority's Capital Improvement Program. Under this program the notes are issued backed by the liquidity and credit rating of the Authority. Each Series A EMCP Note will mature on its respective "Original Maturity Date", which may range from one to 90 days from the date of issuance, unless its maturity is extended on the "Original Maturity Date" to the "Extended Maturity Date", which will be the date that is 270 days after the date of issuance of the Series A EMCP Note. The notes are payable from and secured by a subordinate lien on the Authority's net revenues, as further described in the Authority's master trust indenture as supplemented. In November 2015, DC Water authorized the dealer for the EMCP program as Goldman, Sachs & Co. The \$100 million extendable municipal commercial paper program includes: (1) Series A (tax-exempt) aggregate principal amount not to exceed \$100 million

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

INVESTOR RELATIONS: DC Water's investor relations can be found via BondLink at www.dewaterbonds.com



Approved FY 2021 Budgets

Section VII: DEPARTMENTAL SUMMARIES



Fleet Mobile Command Center

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-six 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 Operations, Pumping and Sewer Services, 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 Care 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. The departments of Engineering and Technical Services, Wastewater Engineering, Clean Rivers, Permit Operations, and Capital Improvement Program (CIP) Infrastructure Management are responsible for ongoing reinvestment in the system infrastructure, compliance with various mandates and provides 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.

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 cluster group and is accountable for service delivery and performance metrics of the departments within their cluster.

DC Water continues to make organizational changes and improvement to enhance efficiencies, improve processes and efficiently utilize all assets with the goal of better serving the public and protecting the environment. To this end during FY 2019, DC Water's Executive Team implemented series of structural changes aimed at leveraging organizational strengths to produce maximum results, promote high performing team culture across all business units, and provide best employee experience. These structural changes include the creation of the CIP Infrastructure Management department within the Engineering cluster; consolidation of the Distribution & Conveyance Services and Sewer operations into a single department, Pumping Services; creation of the Office of Emergency Management department which was within Distribution & Conveyance Services; and consolidation of the Water Quality & Technology as part of the Water Services department.

DC Water’s new organizational chart can be found on page VII-13 and reflects structural changes for the following departments and cluster groups:

- Chief Executive Officer – This cluster is comprised of the Office of the Chief Executive Officer, Board Secretary, and Internal Audit.
- Administrative Services – This cluster includes the Administration Office, Security, Occupational Safety and Health, Office of Emergency Management, Fleet Management, and Facilities Management departments.
- Finance and Procurement – This cluster is comprised of Finance and the Procurement & Compliance departments. All goods, services and engineering procurement administration are consolidated under the Procurement and Compliance department. This cluster is also responsible for the oversight of the Non-Ratepayer Revenue Fund.
- People and Talent – Human Capital Management is now the Human Resources department and includes Labor Relations under this cluster.
- Performance – The Performance group is a business unit within the CEO’s office, which focuses on continuous improvement of performance throughout the Authority.
- Customer Experience – This cluster includes Customer Care (previously Customer Service) and Information Technology departments.
- Operations and Engineering – All operational and engineering functions are consolidated into a single cluster. This includes Department of Engineering & Technical Services (DETS), Wastewater Engineering, Clean Rivers, Permit Operations, and CIP Infrastructure Management. The operations departments include Water Operations (includes Water Quality and Technology), Pumping Operations, Wastewater Treatment Operations, Process Engineering, Maintenance Services, and Infrastructure Management.
- Legal Affairs – General Counsel is now Legal Affairs.
- Marketing and Communications – External Affairs is now Marketing and Communications.
- Chief Operating Officer – Oversees the operations, engineering, administration and customer experience clusters.

Executive Team

CEO & General Manager	COO & Executive Vice- President	Executive Vice- President Administra- tive Services	Executive Vice- President Finance/ Procurement	Executive Vice- President People/ Talent	Executive Vice- President Performance	Executive Vice- President Customer Experience	Executive Vice- President Legal Affairs	Executive Vice- President Operations/ Engineering
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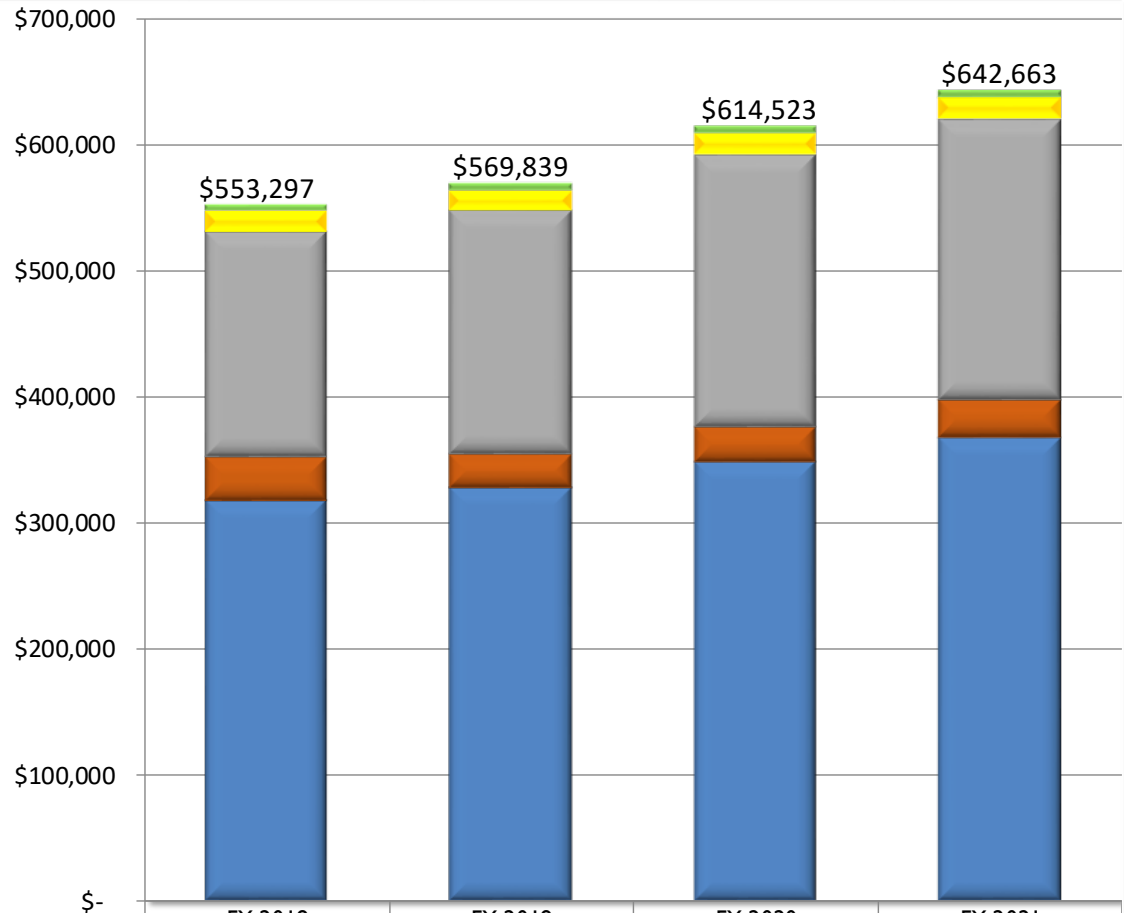


Operating Expenditures Budgets

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

\$ in thousands

FY 2018 - FY 2021

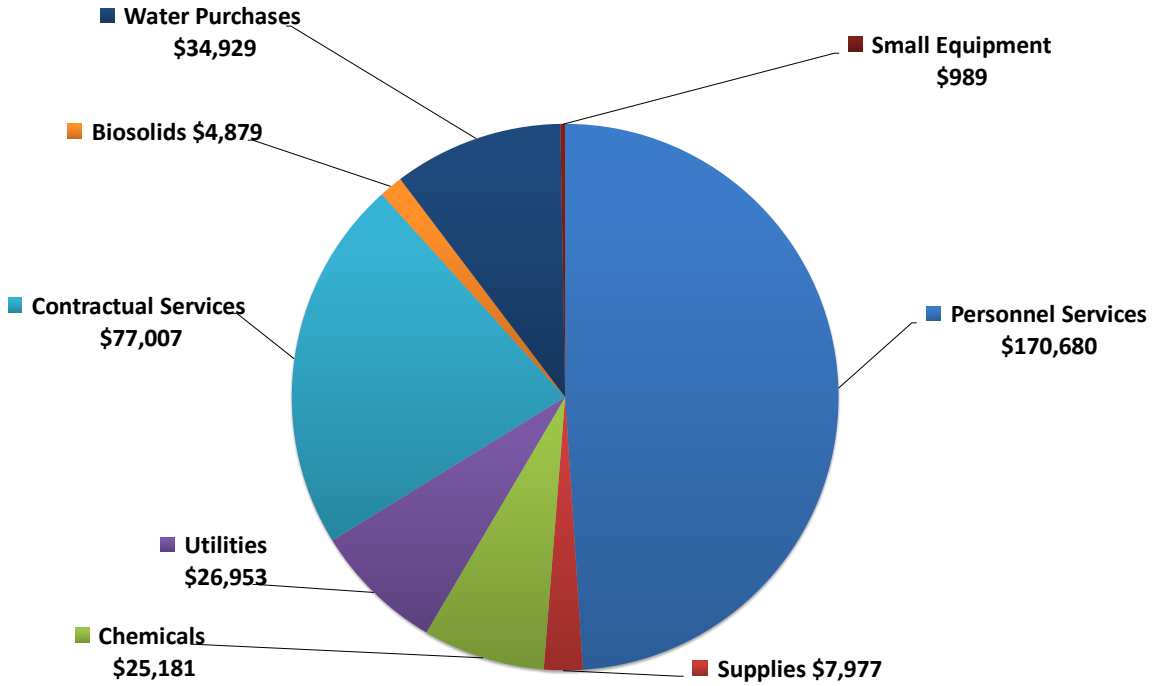


	FY 2018 Actual	FY 2019 Actual	FY 2020 Approved	FY 2021 Approved
ROW	\$5,100	\$5,100	\$5,100	\$5,100
PILOT	\$16,276	\$16,602	\$16,934	\$17,272
Debt Service	\$178,399	\$193,035	\$215,340	\$222,268
Cash Financed Capital Improvements	\$35,260	\$26,999	\$28,556	\$30,355
Operations & Maintenance	\$318,263	\$328,104	\$348,594	\$367,667

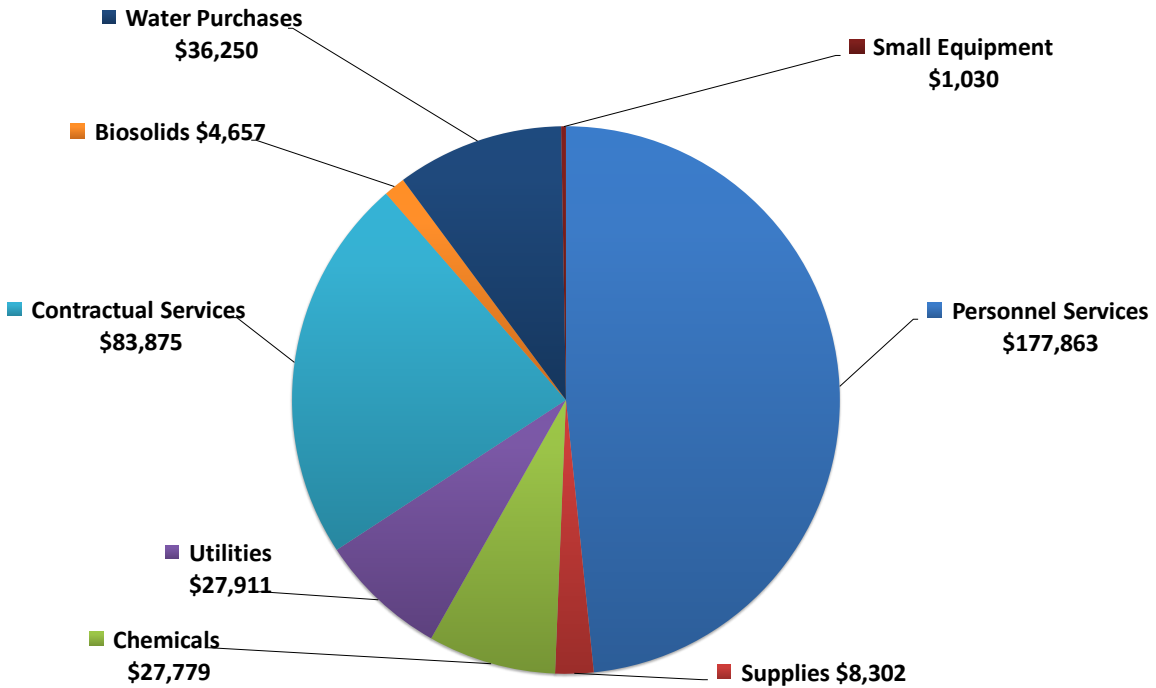
The above chart shows steady growth in operations and maintenance (O&M) costs to maintain appropriate service levels. The overall operating budget is constrained by the increasing debt service costs required to support DC Water’s Capital Improvement Program.

\$ in thousands

FY 2020 Approved \$348,594



FY 2021 Approved \$367,667





Operating Expenditures by Object

\$ in thousands

Object	FY 2018 ACTUAL	FY 2019 ACTUAL	FY 2020 APPROVED	FY 2021 APPROVED
Personnel Services	\$ 157,635	\$ 157,979	\$ 170,680	\$ 177,863
Contractual Services	74,914	76,206	81,886	88,532
Water Purchases	28,357	32,430	34,929	36,250
Chemicals and Supplies	30,482	34,979	33,158	36,081
Utilities	26,158	25,778	26,953	27,911
Small Equipment	700	731	989	1,030
Subtotal Operations & Maintenance Expenditures	318,246	328,104	348,594	367,667
Debt Service	178,399	193,035	215,340	222,268
Cash Financed Capital Improvements	35,260	26,999	28,556	30,355
Payment in Lieu of Taxes	16,276	16,602	16,934	17,274
Right of Way Fees	5,100	5,100	5,100	5,100
Total Operating Expenditures	\$ 553,280	\$ 569,839	\$ 614,523	\$ 642,663
Personnel Services charged to Capital Projects	(15,527)	(17,588)	(22,748)	(24,382)
Total Net Operating Expenditures	\$ 537,753	\$ 552,251	\$ 591,775	\$ 618,281

- **Personnel Services** – This covers the salaries, benefits, overtime, on-call and other employee compensation for full time employees, temporary/part-time employees and the DC Water’s internship program.
- **Contractual Services** – This includes the maintenance and repairs for DC Water’s water, sewer and wastewater infrastructure, automotive and various operational facilities. It also covers the legal, insurance and compliance requirements, customer support and community outreach programs, employee training, safety programs, software maintenance, information technology services, pay for success based on performance of the Green Infrastructure project, etc.
- **Water Purchases** – This is for water purchased from the U.S. Army Corps of Engineers (Washington Aqueduct), the entity that sources, treats and produces the tap water distributed by DC Water in the District.
- **Chemicals and Supplies** – This includes the various chemicals used in the treatment processes, office supplies, parts sourced from the warehouse, uniforms for operational and technical employees, etc.
- **Utilities** – This covers the costs for telecommunications (radios, cell and phone lines), electricity, natural gas, water usage, building rentals, etc.
- **Small Equipment** – Include items such as adding machines, cameras, small appliances, etc.
- **Debt Service** – This is for repayment of principal and interest on debt issued for the capital program.
- **Cash Financed Capital Improvements (CFCI)** – The purpose of this fund is two-fold: to serve as an Operations and Maintenance budget contingency and to provide sufficient debt service coverage.
- **Payment in Lieu of Taxes and Right of Way** – These are payments to the District for water and sewer conduits that it occupies within the District of Columbia, consistent with memorandum of understanding (MOU).



Operating Expenditures by Department and Cluster

\$ in thousands

Departments & Clusters	FY 2018 ACTUAL	FY 2019 ACTUAL	FY 2020 APPROVED	FY 2021 APPROVED
OPERATIONS & ENGINEERING	\$ 218,109	\$ 227,171	\$ 238,803	\$ 249,766
Maintenance Services	17,807	18,867	19,653	20,075
Wastewater Treatment-Operations	72,716	77,024	77,105	79,533
Wastewater Treatment-Process Engineering	6,944	6,892	7,064	7,232
Water Quality and Technology	2,929	3,436	-	-
Water Operations	23,927	23,863	65,124	68,045
Sewer Operations	14,074	15,916	15,829	-
Pumping Operations/DDCS	48,798	52,501	18,616	37,970
DC Clean Rivers	2,274	2,175	2,761	2,951
Engineering & Technical Services	23,995	21,564	24,962	24,937
CIP Infrastructure Management				1,259
Wastewater Engineering	1,964	1,740	3,995	3,599
Permit Operations	2,680	3,192	3,693	4,165
FINANCE & PROCUREMENT	20,642	19,967	26,714	33,467
Finance	15,076	14,853	20,906	26,888
Procurement & Compliance	5,566	5,114	5,808	6,079
Non-Ratepayer Revenue Fund				500
CUSTOMER EXPERIENCE	32,406	32,311	32,149	30,745
Customer Care	21,217	20,643	21,236	20,360
Information Technology	11,189	11,668	10,913	10,384
INDEPENDENT OFFICES	8,357	9,153	8,438	9,446
Board Secretary	599	567	613	632
Office of the Chief Executive Officer	4,405	4,877	4,326	5,206
Internal Audit (outsourced)	896	856	885	742
Marketing and Communications	2,457	2,853	2,614	2,867
PEOPLE AND TALENT	8,609	6,495	10,028	9,619
Human Resources	8,609	6,495	10,028	9,619
LEGAL AFFAIRS	6,359	6,743	6,222	6,644
Legal Affairs	6,359	6,743	6,222	6,644
ADMINISTRATIVE SERVICES	23,763	26,264	26,241	27,981
Administration Office	706	570	586	634
Office of Emergency Management	-	959	1,408	1,498
Fleet Management	6,241	6,717	6,129	6,965
Occupational Safety & Health	1,944	1,817	2,181	2,335
Facilities Management	7,680	8,457	8,930	8,661
Security	7,191	7,742	7,007	7,888
Subtotal O & M Expenditures	318,246	328,104	348,594	367,667
Debt Service	178,399	193,035	215,340	222,268
Cash Financed Capital Improvements	35,260	26,999	28,556	30,355
Payment in Lieu of Taxes	16,276	16,602	16,934	17,272
Right of Way Fees	5,100	5,100	5,100	5,100
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Total Net Operating Expenditures	\$ 537,753	\$ 552,251	\$ 591,776	\$ 618,281



FY 2020 Approved Budget by Department by Category

summary overview financial plan rates&rev capital financing departmental glossary

(\$ in thousands)

Auth Pos	Pay	Fringe	Overtime	Personnel Services	Supplies	Chemicals	Utilities	Contracts	Biosolids	Water Purchases	Equipment	Total Non-Personnel Services	Total Operating
Wastewater Treatment - Operations	127 \$	11,725 \$	3,527 \$	1,845	\$ 17,096	\$ 853	\$ 18,528	\$ 10,620	\$ 4,879	\$ -	\$ 94	\$ 60,009	\$ 77,105
Wastewater Treatment - Process Engineering	33	3,633	1,142	50	4,825	496	57	1,668	-	-	18	2,239	7,064
Maintenance Services	102	9,167	2,813	610	12,590	3,450	157	3,181	-	-	275	7,063	19,653
Water Operations	199	17,290	6,219	1,815	25,324	1,002	501	3,307	-	34,929	32	39,801	65,124
Sewer Operations	99	8,181	2,921	1,318	12,420	534	637	2,191	-	-	32	3,408	15,829
Customer Care	122	10,791	3,758	302	14,851	88	315	5,918	-	-	65	6,385	21,236
Pumping Operations/DDCS	78	7,342	2,298	750	10,389	637	3,960	3,438	-	-	91	8,226	18,616
Engineering and Technical Services	135	15,790	4,706	938	21,433	145	517	2,792	-	-	75	3,529	24,962
Waste/Water Engineering	18	2,479	735	25	3,239	15	-	739	-	-	2	756	3,995
D.C. Clean Rivers	11	1,834	525	-	2,359	27	126	249	-	-	-	402	2,761
Permit Operations	20	2,102	769	50	2,920	41	377	355	-	-	-	773	3,693
Subtotal Operations	944	90,332	29,413	7,703	127,448	7,287	25,175	34,457	4,879	34,929	684	132,591	260,039
Office of the Chief Executive Officer	15	2,541	738	3	3,283	13	29	1,001	-	-	-	1,043	4,326
Office of the Secretary	2	261	49	9	320	17	4	271	-	-	1	293	613
Internal Audit (outsourced)	-	-	-	-	-	-	7	878	-	-	-	885	885
Legal Affairs	15	2,050	557	3	2,610	6	24	3,582	-	-	-	3,612	6,222
Marketing and Communications	13	1,499	443	1	1,943	14	27	617	-	-	12	671	2,614
Human Resources	29	3,880	1,046	5	4,930	35	24	5,039	-	-	-	5,098	10,028
Information Technology	28	3,498	995	10	4,502	12	152	6,153	-	-	94	6,411	10,913
Procurement and Compliance	35	3,759	1,121	30	4,910	32	32	832	-	-	3	898	5,808
Finance	52	6,969	2,261	40	9,270	25	44	11,563	-	-	4	11,636	20,906
Administration Office	3	439	109	1	549	1	4	32	-	-	-	37	586
Office of Emergency Management	6	745	238	-	982	6	13	375	-	-	30	425	1,408
Facilities Management	52	4,200	1,384	275	5,859	428	250	2,327	-	-	66	3,071	8,930
Security	8	875	258	-	1,133	59	297	5,468	-	-	50	5,874	7,007
Occupational Safety and Health	11	1,333	388	1	1,721	23	31	406	-	-	-	460	2,181
Fleet Management	10	913	305	3	1,220	18	840	4,006	-	-	45	4,909	6,129
Subtotal Administration	279	32,961	9,891	381	43,232	689	1,778	42,550	-	-	305	45,323	88,555
Subtotal O & M Expenditures	1,223	123,293	39,303	8,084	170,680	7,977	26,953	77,007	4,879	34,929	989	177,914	348,594
Debt Service													
Cash Financed Capital Improvements													215,340
Payment in Lieu of Taxes													28,556
Right of Way													16,934
Total OPERATING EXPENDITURES													5,100
Personnel Services charged to Capital Projects													\$ 614,524
TOTAL NET OPERATING EXPENDITURES													(22,748)
													\$ 591,776



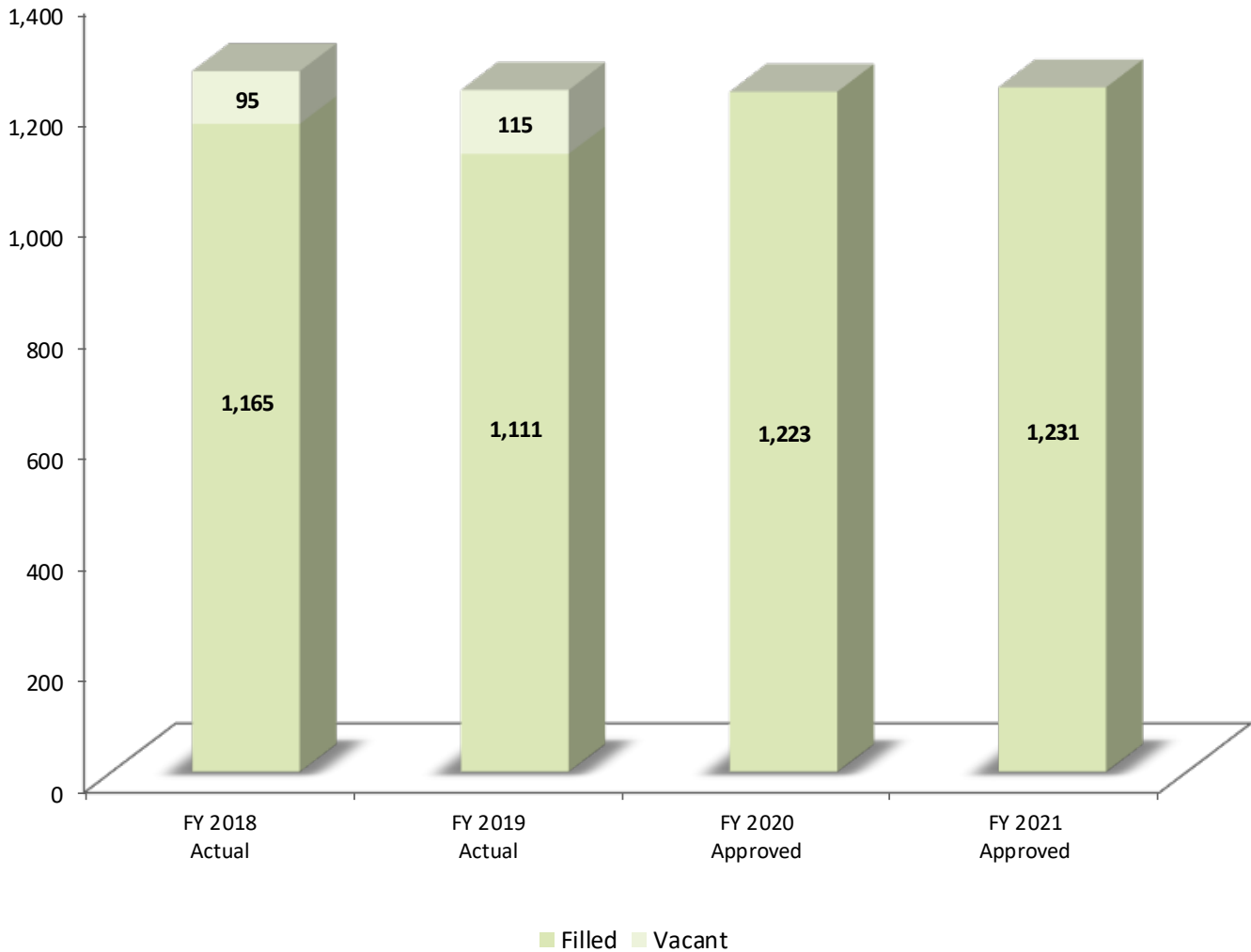
FY 2021 Approved Budget by Department by Category

summary overview financial plan capital rates&rev financing departmental glossary

(\$ in thousands)

Auth Pos	Pay	Fringe	Overtime	Personnel Services	Supplies	Chemicals	Utilities	Contracts	Biosolids	Water Purchases	Equipment	Total Non-Personnel Services	Total Operating
126	\$ 12,340	\$ 3,716	\$ 1,796	\$ 17,853	\$ 1,052	\$ 27,599	\$ 17,707	\$ 10,488	\$ 4,657	\$ -	\$ 177	\$ 61,681	\$ 79,533
35	3,789	1,211	50	5,051	565	-	57	1,489	-	-	70	2,181	7,232
100	9,132	2,847	630	12,609	3,435	-	167	3,488	-	-	376	7,467	20,075
200	18,140	6,638	1,780	26,558	1,240	30	431	3,504	-	36,250	32	41,487	68,045
123	10,952	3,887	462	15,300	69	-	394	4,587	-	-	10	5,060	20,360
177	16,652	5,625	2,068	24,345	1,384	150	6,244	5,735	-	-	113	13,625	37,970
129	15,466	4,694	938	21,098	125	-	579	3,085	-	-	50	3,839	24,937
17	2,180	653	25	2,857	12	-	-	730	-	-	-	742	3,599
11	1,741	525	-	2,266	22	-	114	549	-	-	-	685	2,951
6	948	311	-	1,259	-	-	-	-	-	-	-	-	1,259
21	2,217	824	45	3,085	41	-	403	636	-	-	-	1,080	4,165
945	93,556	30,930	7,794	132,280	7,946	27,779	26,096	34,290	4,657	36,250	828	137,846	270,126
18	3,226	958	-	4,184	13	-	24	985	-	-	-	1,021	5,206
2	274	53	11	338	17	-	3	272	-	-	2	294	632
-	-	-	-	-	-	-	7	735	-	-	-	742	742
17	2,225	617	3	2,844	3	-	20	3,776	-	-	-	3,800	6,644
13	1,602	481	-	2,083	14	-	26	732	-	-	12	784	2,867
30	3,656	1,111	5	4,772	29	-	27	4,790	-	-	-	4,846	9,619
28	3,733	1,079	10	4,822	4	-	163	5,319	-	-	77	5,563	10,384
36	3,911	1,186	30	5,126	30	-	53	866	-	-	3	953	6,079
53	7,329	2,293	40	9,662	20	-	53	17,149	-	-	4	17,225	26,888
3	457	115	-	573	1	-	4	57	-	-	-	61	634
6	741	204	5	949	15	-	21	493	-	-	20	549	1,498
51	4,221	1,394	250	5,864	118	-	171	2,508	-	-	-	2,797	8,661
8	814	244	1	1,059	54	-	325	6,410	-	-	40	6,829	7,888
11	1,452	409	-	1,861	20	-	26	428	-	-	-	474	2,335
10	1,090	349	5	1,444	19	-	893	4,564	-	-	45	5,521	6,965
286	34,731	10,491	360	45,582	356	-	1,814	49,585	-	-	203	51,959	97,541
1,231	\$ 128,287	\$ 41,422	\$ 8,154	\$ 177,863	\$ 8,302	\$ 27,779	\$ 27,911	\$ 83,875	\$ 4,657	\$ 36,250	\$ 1,030	\$ 185,804	\$ 367,668
Debt Service													
Cash Financed Capital Improvements													
Payment in Lieu of Taxes													
Right of Way													
Total OPERATING EXPENDITURES													
Personnel Services charged to Capital Projects													
TOTAL NET OPERATING EXPENDITURES													
												\$ 642,663	
												(24,382)	
												\$ 618,281	

FY 2018 - FY 2021



DC Water is committed to a strategic goal to achieve a lower vacancy rate. Through FY 2021, the approach undertaken included a closer look and assessment of staffing requirements needed to maintain service levels, coupled with increased hiring efforts in areas of need and criticality throughout the Authority.

These strategic initiatives are reflected in the FY 2021 budget, which includes the deactivation of 63 aged and hard to fill vacant positions to lower costs, and addition of 15 new positions for a net reduction of 48 during the last budget cycle. The new positions were for in-house support of various operational requirements for water quality compliance, automotive parts, permits, and other strategic programs.

In FY 2021, 5 new positions were added to the overall headcount for DC Water Consumer Protection Amendment. The FY 2021 authorized headcount reflects management’s commitment to achieve lower single-digit vacancy rate in the future.



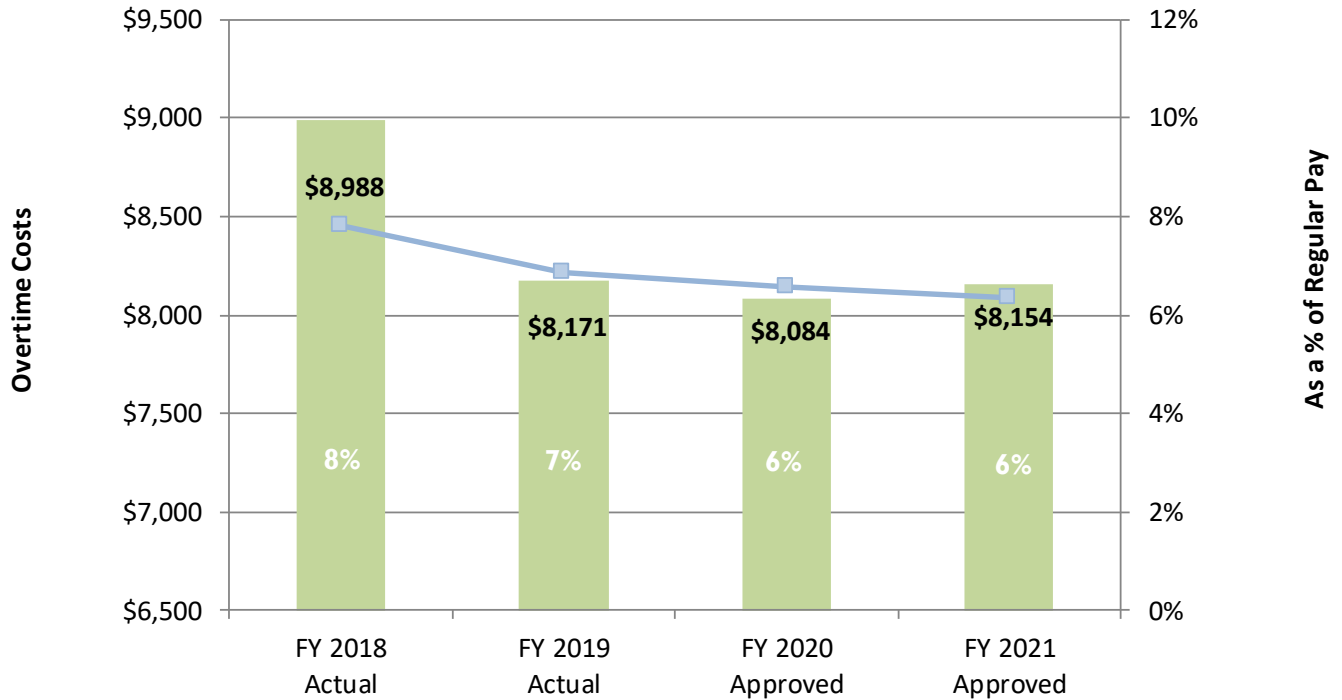
Authorized Positions

		FY 2018		FY 2019		FY 2020	FY 2021
		Authorized	Year -End Filled	Authorized	Year -End Filled	Authorized	Authorized
Wastewater Treatment - Operations Wastewater Treatment - Process Engineering Maintenance Services Water Operations Sewer Operations Customer Care Pumping Operations/DDCS Water Quality & Technology Engineering and Technical Services Wastewater Engineering CIP Infrastructure Management D.C. Clean Rivers Permit Operations		122	122	126	113	127	126
		39	35	35	32	33	35
		115	95	100	95	102	100
		190	172	173	166	199	200
		115	94	97	89	99	
		126	115	121	107	122	123
		88	84	80	77	78	177
			24	27	24		
		166	127	135	120	129	129
			16	17	12	18	17
						6	6
		15	9	11	8	11	11
	15	19	21	20	20	21	
Subtotal		991	912	943	863	944	945
Office of the Chief Executive Officer Office of the Secretary Internal Audit (outsourced) Legal Affairs Marketing and Communications Human Resources Information Technology Procurement and Compliance Finance Administration Office Office of Emergency Management Facilities Management Security Occupational Safety and Health Fleet Management		16	12	18	15	15	18
		2	2	2	2	2	2
		-	-	-	-	-	-
		14	14	15	8	15	17
		14	13	13	13	13	13
		25	27	30	24	29	30
		28	28	28	28	28	28
		36	34	36	30	35	36
		49	49	52	51	52	53
		3	1	3	3	3	3
				6	4	6	6
		57	48	51	46	52	51
	9	8	8	7	8	8	
	9	10	11	11	11	11	
	7	7	10	6	10	10	
Subtotal		269	253	283	248	279	286
Total Positions		1,260	1,165	1,226	1,111	1,223	1,231

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

\$ in thousands

FY 2018—FY 2021



The Authority’s overtime target is 6 percent of regular pay. Overtime costs in FY 2018 increased due to support for the Automated Meter Reading (AMR) replacement project; work performed in response to emergencies during the winter (including de-icing of roads and snow removal), SWIRL activities (which tend to happen during late evening into the night), and water/sewer maintenance due to aging infrastructure.



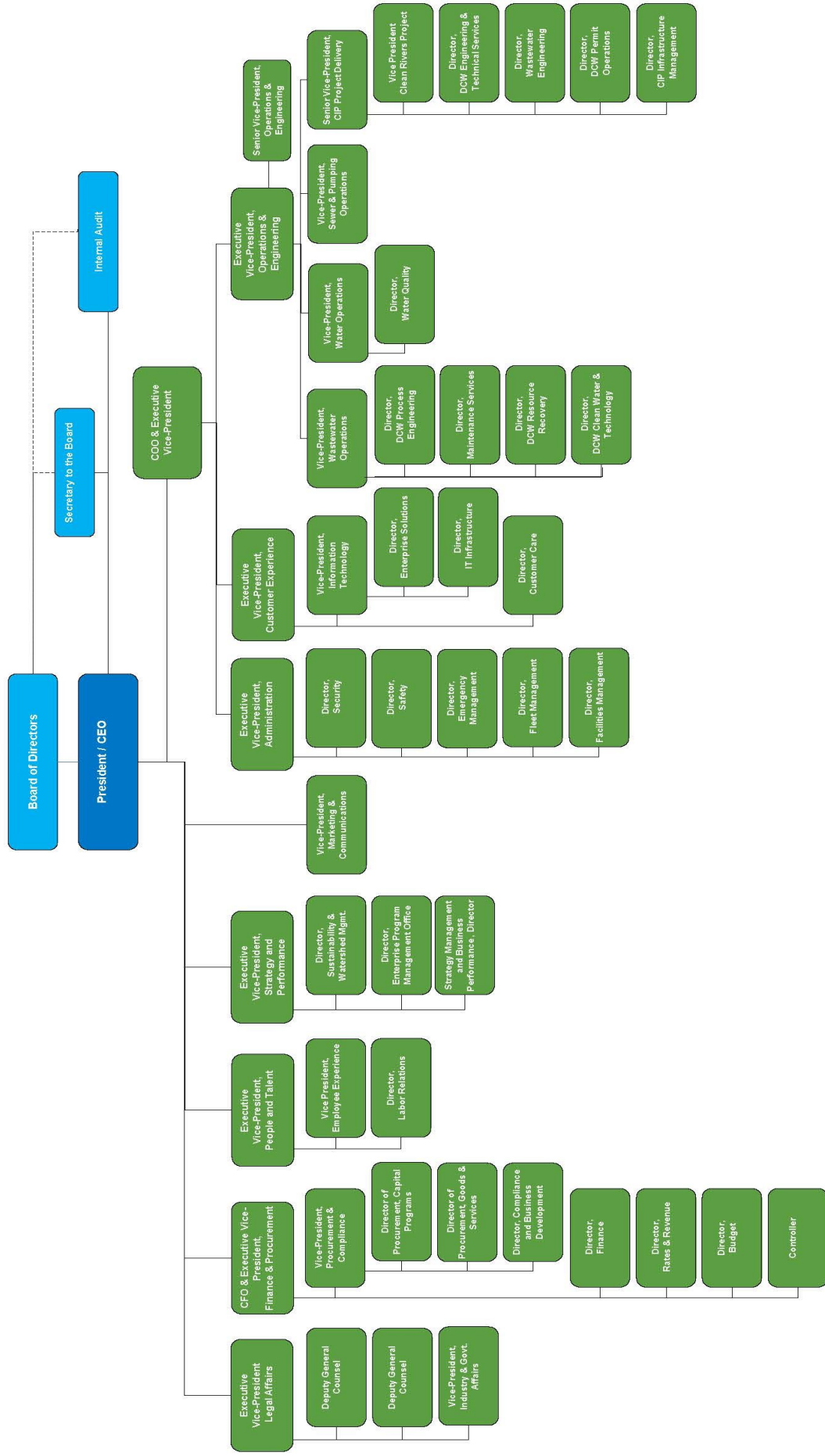
Overtime Budget by Department

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

\$ in thousands

Department	FY 2018 Actual	FY 2019 Actual	FY 2020 Approved	FY 2021 Approved
Wastewater Treatment - Operations	\$ 1,746	\$ 1,859	\$ 1,845	\$ 1,796
Wastewater Treatment - Process Engineering	21	30	50	50
Maintenance Services	634	587	610	630
Water Services	1,985	1,856	1,815	1,780
Sewer Services	1,737	1,527	1,318	-
Customer Service	627	448	302	462
Distribution and Conveyance Systems	969	730	750	2,068
Water Quality & Technology	2	2	-	-
Engineering and Technical Services	908	696	938	938
Wastewater Engineering	21	22	25	25
DC Clean Rivers	8	6	-	-
Permit Operations	29	21	50	45
General Manager	4	2	3	-
Office of the Board Secretary	11	13	9	11
Internal Audit	-	-	-	-
General Counsel	3	2	3	3
External Affairs	1	3	1	-
Information Technology	8	9	10	10
Finance, Accounting & Budget	33	38	40	40
Office of Emergency Management	-	-	-	5
Assistant General Manager - Support Services	-	-	1	-
Human Capital Management	3	1	5	5
Facilities Management	201	240	275	250
Security	0	1	-	1
Procurement	32	66	30	30
Occupational Safety and Health	1	0	1	-
Fleet Management	2	13	3	5
Total	\$ 8,988	\$ 8,171	\$ 8,084	\$ 8,154

DC Water Organizational Leadership



CLUSTER: OPERATIONS AND ENGINEERING

DEPARTMENT: Wastewater Treatment Operations

PURPOSE: Operate the Advanced Wastewater Treatment Plant at Blue Plains to produce treated effluent that meet stringent Federal Clean Water Act and local water quality requirements

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



FUNCTIONS

Plant Operations	Resource Recovery	Clean Water Quality & Technology
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 the Combined Heat and Power (CHP) facility	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
Implement Asset Management goals and administer effective use of Maximo	Identify, prioritize, study, and implement energy generation and optimization options	

Department: Wastewater Treatment Operations

BUDGET

The \$2.4 million increase in FY 2021 over the FY 2020 budget is mainly for personnel service cost adjustments, price escalation of major chemicals, including increased usage for treatment in the Tunnel Dewatering Pump Station (TDPS); offset by cost reductions in utilities, contractual services and biosolids.

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	130	127	127	126	-1	
Headcount: Filled	122	123				
Total Personnel Services	\$16,456	\$16,982	\$17,096	\$17,853	\$757	7%
Supplies	730	573	853	1052	199	-2%
Chemicals	23,001	26,751	25,036	27,599	2,563	7%
Utilities & Rent	16,077	15,861	18,528	17,707	(821)	3%
Contractual Services	10,137	12,200	10,619	10,488	(131)	-7%
Biosolids	6,251	4,566	4,879	4,657	(222)	-4%
Small Equipment	63	91	94	177	83	-30%
Total Non-Personnel Services	56,260	60,042	60,009	61,681	1,672	1%
Department Total	\$72,716	\$77,024	\$77,105	\$79,533	\$2,428	3%
Capital Equipment	\$31	(\$3)	\$100	\$100	0	0%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Achieve NACWA Award Status	Platinum	Platinum	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	100 % compliance	Greater than 90 % compliance	Greater than 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

Department: Wastewater Treatment Operations

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue implementation of an Asset Management Program in tandem with an Asset Reliability Program
- Continue optimization of the Filtrate Treatment Facilities (FTF), Tunnel Dewatering Pump Station (TDPS), and Class A Biosolids Facilities
- Implement workforce development to enhance skill and create a learning environment for staff
- Continue to support implementation of other CIP projects in progress, including Long Term Control Plan (LTCP), Raw Wastewater Pump Station 2 (RWWPS2), Gravity Thickener, and Primary Scum Screening Degrating Building (PSSDB) upgrades
- Continue implementation of Safety and Operator Cross Training
- 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 (Bloom), in the service area, for restoration projects, tree plant, and Low Impact Development (LID) projects
- Continue biosolids product assurance to maintain low number of offsite odor complaints
- Implement the 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
- Continue monitoring of revenue and costs associated with high strength waste program and evaluate new sources as appropriate

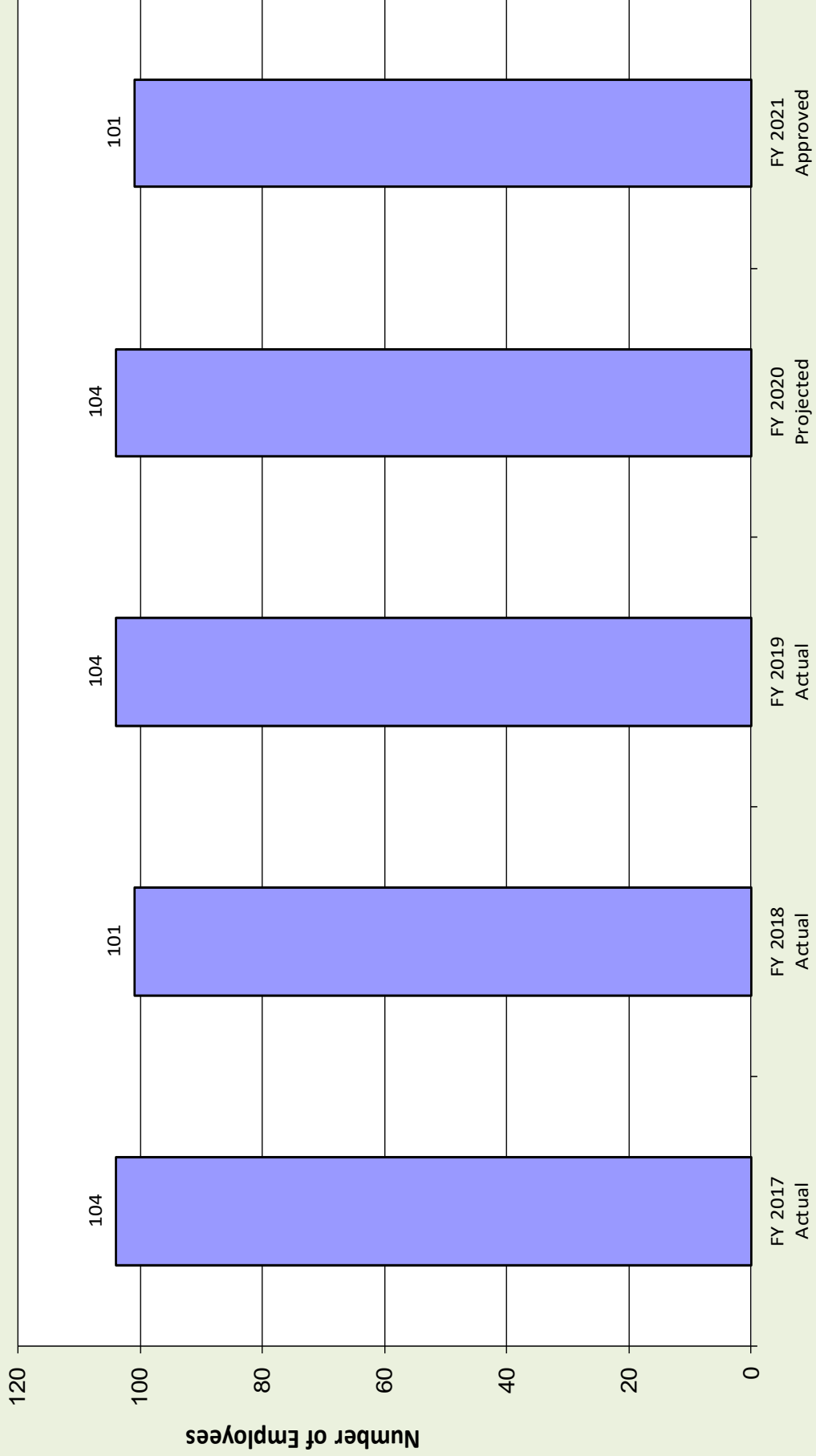
FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue implementation of an Asset Management Program in tandem with an Asset Reliability Program
- Continue optimization of the Filtrate Treatment Facilities (FTF), Tunnel Dewatering Pump Station (TDPS), and Class A Biosolids Facilities

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

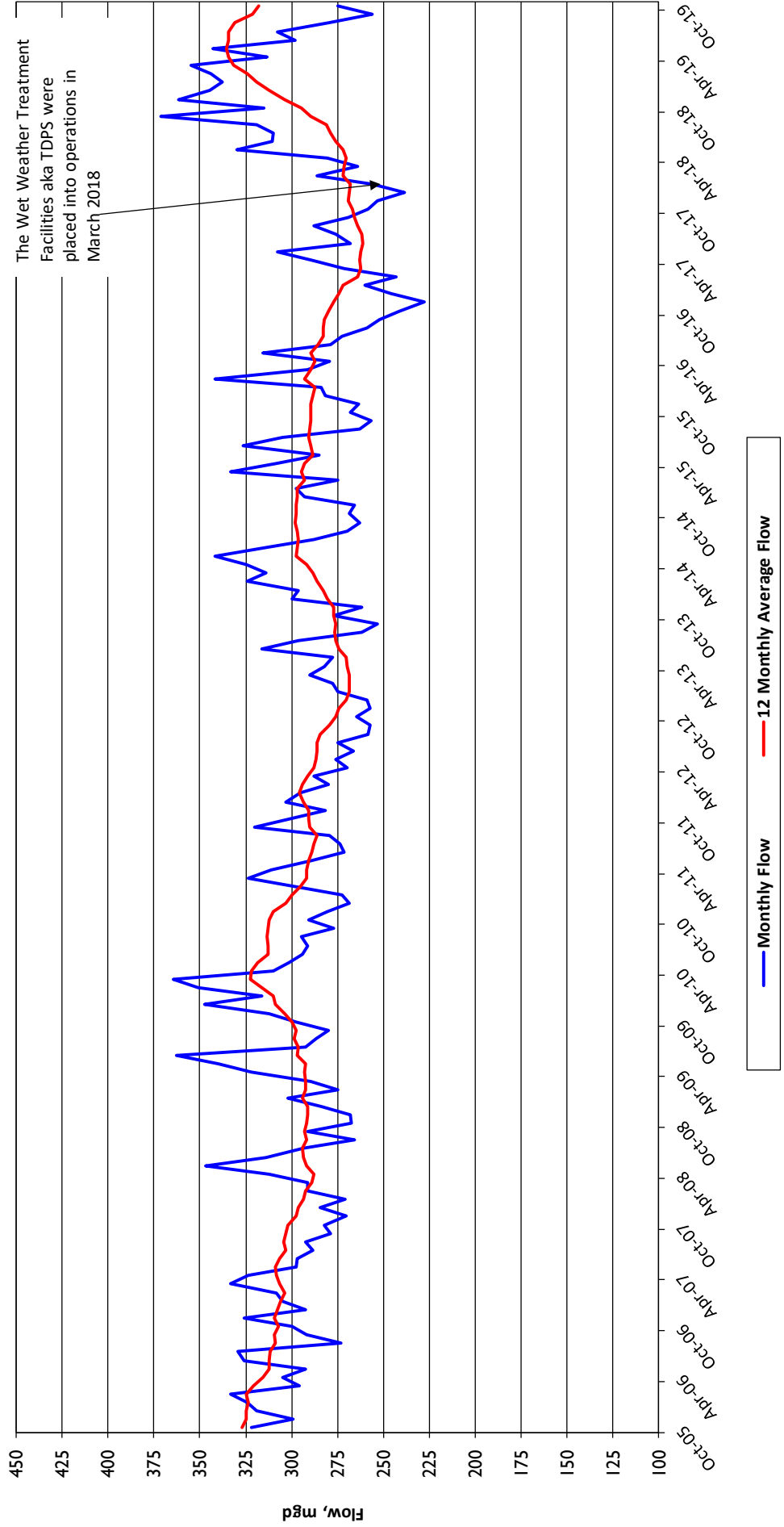
- Full year operation of the Filtrate Treatment Facilities (FTF) will decrease methanol usage, increase electricity usage and other associated operation and maintenance costs
- Full year operation of the Tunnel Dewatering Enhanced clarification Facilities will increase electricity usage, chemicals and other associated operation and maintenance costs

Wastewater Treatment Certified Operators* FY 2017 - FY 2021

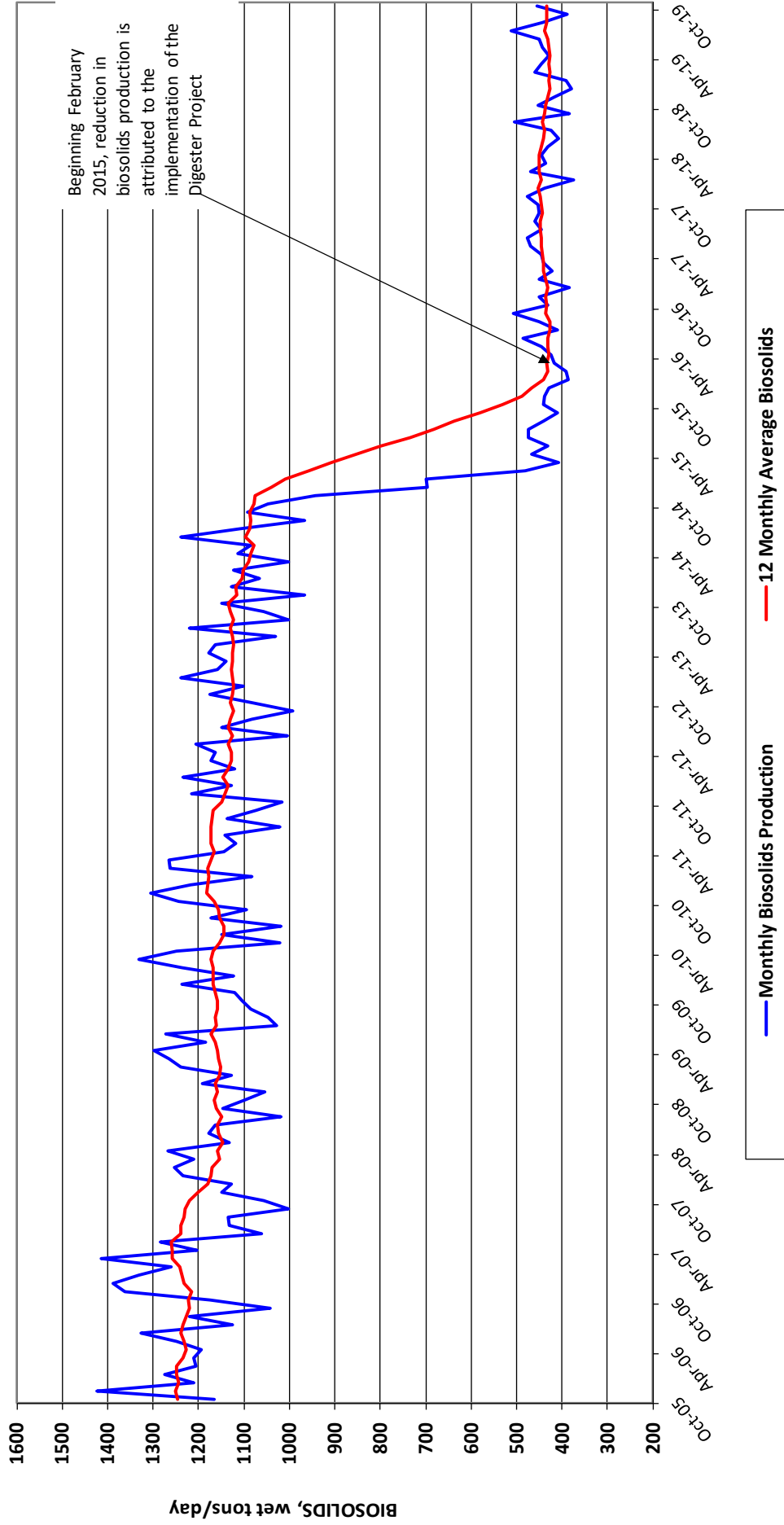


*Includes all positions with Certified Wastewater Treatment Plant Operator License
DC Water FY 2021 Budgets, Adopted March 5, 2020

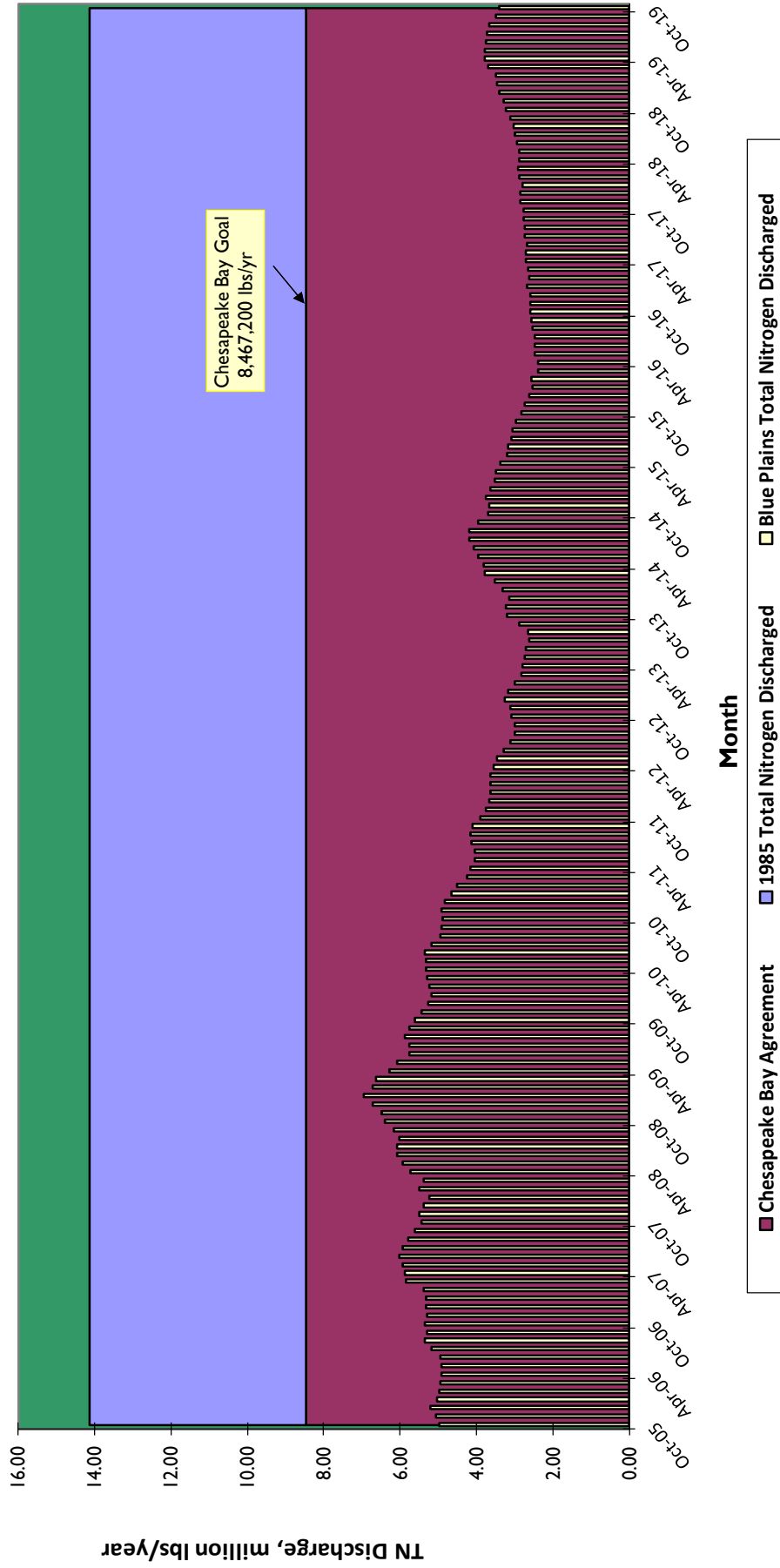
BLUE PLAINS PLANT EFFLUENT FLOW OCTOBER 2005 - OCTOBER 2019



BLUE PLAINS PLANT BIOSOLIDS PRODUCTION OCTOBER 2005 - OCTOBER 2019



ANNUAL TOTAL NITROGEN LOAD GRAPH OCTOBER 2005 - OCTOBER 2019



CLUSTER: OPERATIONS AND ENGINEERING

DEPARTMENT: Wastewater Treatment - Process Engineering

PURPOSE: To assist in the operation of the Advanced Wastewater Treatment Plant at Blue Plains, and produce treated effluent and Class A Biosolids that meet stringent Federal Clean Water Act and local water quality requirements

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



FUNCTIONS

Process Engineering	Process Control Systems	Process Control Maintenance
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 comments and support during construction of capital projects	Provide Design and Construction interface to PCS; Manage PCS hardware, software, maintenance, and support services	Maintain electronic process control systems, flow measurement, metering and recording equipment for the Plant
Troubleshoot process performance problems	Troubleshoot PCS issues and train Process and Instrumentation staff	

Department: Wastewater Treatment - Process Engineering

BUDGET

The \$0.2 million increase in FY 2021 compared to the FY 2020 budget is mainly for personnel services cost adjustments

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	39	39	33	35	2	6%
Headcount: Filled	35	33				
Total Personnel Services	\$4,689	\$4,841	\$4,825	\$5,051	\$226	5%
Supplies & Chemicals	382	413	496	565	69	14%
Utilities & Rent	72	55	57	57	0	1%
Contractual Services	1,788	1,579	1,668	1,489	-179	-11%
Small Equipment	14	4	18	70	52	289%
Total Non-Personnel Services	2,256	2,051	2,239	2,181	-58	-3%
Department Total	\$6,944	\$6,892	\$7,064	\$7,232	\$168	2%
Capital Equipment	\$870	\$152	\$350	\$425	\$75	21%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Critical Equipment Availability (97%)	>97%	97%	>97%	>97%

Department: Wastewater Treatment - Process Engineering

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Maintain full compliance with the National Pollutant Discharge Elimination Systems (NPDES) permit
- Continue training staff on new processes such as Filtrate Treatment Facilities (FTF), Wet Weather Facility and new CIP/commissioning projects as they come on-line
- Continue to support implementation of other CIP projects in progress, including Long Term Control Plan (LTCP), Raw Wastewater Pump Station 2 (RWWPS2), Gravity Thickener (GT) and Primary Scum Screening De-grating Building (PSSDB) upgrades, Filter Influent Pump Replacement, Reclaimed Final Effluent Pumping Upgrades and Multimedia Filter Upgrades
- Conduct process design reviews for capital projects (i.e. Headworks Upgrades, Multi Media Filtration Upgrades, etc.)
- Continue implementation of Reliability Program to ensure availability of critical process equipment
- Continue implementation and support of an Asset Management Program in tandem with an Asset Reliability Program
- Continue to improve the structure and use of Maximo
- Continued optimization of the Plant Processes for improved permit compliance reliability and treatment performance, including Class A Biosolids Facilities
- 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

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue implementation of an Asset Management Program in tandem with an Asset Reliability Program
- Continued optimization of the Filtrate Treatment Facilities (FTF), Tunnel Dewatering Pump Station (TDPS), and Class A Biosolids Facilities

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- Increased preventive maintenance costs for new equipment and facilities
- Increased effort for training and commissioning of new facilities – RWWPS2, GT Upgrade, FIP Replacement and Tunnel Facilities
- Operational startup of Filtrate Treatment Facilities (FTF) will decrease methanol usage, increase electricity usage (1MW) and other associated operation and maintenance costs
- Operational startup of the tunnel dewatering and treatment facilities will increase electricity usage (10MW when operational), chemical usage and other associated operation and maintenance costs

CLUSTER: OPERATIONS AND ENGINEERING

DEPARTMENT: Maintenance Services

PURPOSE: Maintain all mechanical and electrical equipment at the Blue Plains Advanced Wastewater Treatment Plant

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



FUNCTIONS

Electrical Maintenance	Mechanical Maintenance	Mechanical Management
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

Department: Maintenance Services

BUDGET

The \$0.4 million increase in FY 2021 compared to the FY 2020 budget is due to contractual services for major electrical utilization & systems contracts

Description	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	110	110	102	100	(2)	-2%
Headcount: Filled	95	101				
Total Personnel Services	\$10,906	\$11,497	\$12,590	\$12,609	\$19	0%
Supplies & Chemicals	3,025	3,875	3,450	3,435	-15	0%
Utilities & Rent	128	155	157	167	10	7%
Contractual Services	3,563	3,080	3,181	3,488	307	10%
Small Equipment	184	260	275	376	101	37%
Total Non-Personnel Services	6,900	7,370	7,063	7,467	404	6%
Department Total	\$17,807	\$18,867	\$19,653	\$20,075	\$422	2%
Capital Equipment	\$3,186	\$3,582	\$3,160	\$3,920	\$760	24%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Actuals	FY 2020 Targets	FY 2021 Targets
Critical Equipment Availability (97%)	94% ⁽¹⁾	93% ⁽¹⁾	94%	95%
Ratio of Proactive vs Reactive Maintenance		60:40	64:36	68:32

¹ Includes out of service equipment awaiting capital upgrades (Raw Wastewater Pump Station 2, East Screens, Gravity Thickeners, Filter Influent Pumps)

Department: Maintenance Services

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Fully embrace the culture of Reliability and Asset Management in the department and shared across the Authority
- Increase the level of data driven decision making at all levels of the organization
- Deploy mobile Maximo for use by maintenance personnel
- Continue to perform Failure Mode and Effects Analysis (FMEAs) along with Preventive Maintenance Optimization (PMOs)
- Establish Quality Assurance & Quality Control as a program
- Continue training initiatives to provide skills that supports best maintenance practices and reduction in contracted work force

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue to perform Failure Mode and Effects Analysis (FMEAs) along with Preventive Maintenance Optimization (PMOs)
- Continue to develop QA&QC program
- Continue training initiatives to provide skills that supports best maintenance practices and reduction in contracted work force

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- Assume maintenance activities for Tunnel Dewatering Pump Station (TDPS) and Enhanced Clarification Facility (ECF)
- Develop maintenance plan for Gravity Thickening Project

CLUSTER: OPERATIONS AND ENGINEERING

DEPARTMENT: Water Operations

PURPOSE: The Department of Water Operations (DWO) is charged with operating and maintaining the water distribution system delivering potable water to the citizens and visitors to the District of Columbia. DWO ensures compliance with the applicable regulations promulgated by the Safe Drinking Water Act

MISSION: To support the Authority’s mission as defined by the strategic plan and exceed expectations by providing high quality water services in a safe, environmentally friendly, and efficient manner



FUNCTIONS

Distribution Control	Distribution Maintenance	Construction Contract Management	Linear Asset Management	Water Quality & Technology	Office of the Director
Preventative maintenance on the 43,860 system valves Inspect, maintain and replace 9,510 fire hydrants, in accordance with the Memorandum of Understanding (MOU)	Repair and replace water mains, service lines, valves, hydrants and other appurtenances including linear assets	Manage ongoing multifaceted contracts to support water and sewer infrastructure rehabilitation and replacement programs Administer Public Space Restoration Program	Administer the comprehensive asset management program for both water and sewer systems Support Voluntary Lead Service Program	Environmental Protection Agency (EPA) drinking water compliance, monitoring and reporting Assess online water quality data and models and enforce fire hydrant usage policies and regulations	Provide oversight and ensure operational compliance with various MOUs
Perform fire flow tests for developers and analyze system data First responders to Investigate water system leaks emergencies	Perform all water services taps, and abandonments in the District	Manage the acquisition of District Department of Transportation (DDOT) permits to facilitate emergency repairs and scheduled projects	Optimize and prioritize capital program projects using condition assessment and analysis of Computerized Management Maintenance Software (CMMS)	Ensure water quality within the distribution system Manage cross connection program, Fats, Oil & Grease (FOG) program, and Fire hydrant use permits and fees	Manage departments operating and capital budgets and perform budget monitoring functions
Manage the Operations Control Center Coordinate and monitor system pressure in the water distribution system		Provide inspection services for private developers validating service connections and abandonments	Manage the lifecycle maintenance costs and extend service life of assets preventative maintenance programs	Collaborate with District agencies to mitigate adverse health effects from drinking water contaminants	

Department: Water Operations

BUDGET

The \$2.9 million increase in FY 2021 compared to FY 2020 budget is for personnel services adjustments and water purchases from the Washington Aqueduct (WAD) based on DC Water's proportionate share of WAD's operating budget

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	191	182	199	200	1	1%
Headcount: Filled	172	166				
Total Personnel Services	\$20,331	\$20,289	\$25,324	\$26,558	\$1,234	5%
Supplies & Chemicals	933	867	1,032	1,270	238	23%
Utilities & Rent	257	305	501	431	(70)	-14%
Contractual Services	2,077	1,929	3,307	3,504	197	6%
Water Purchases	-	0	34,929	36,250	1,321	4%
Small Equipment	5	21	32	32	0	1%
Total Non-Personnel Services	3,271	3,121	39,801	41,487	1,686	4%
Department Total	\$23,603	\$23,410	\$65,124	\$68,045	\$2,921	4%
Capital Equipment	\$645	\$646	\$735	\$800	\$65	9%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Maintain full compliance with Safe Drinking Water Act standards for positive coliform results (less than 5%)	0.4%	0.4%	2%	2%
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%
# of Distribution Control Branch (DCB) reports highlighting System Pressure Monitoring by Zone	n/a	new	12	12
Number of water main breaks per 100 miles of pipe	n/a	35	33	31
Percent of chlorine results < 1.0 mg/L	n/a	26%	25%	25%
Flush and test areas susceptible to chlorine degradation	n/a	197	200	200
Point of entry pipe material identification	n/a	280	500	1000
Lead profiling for unknown service lines	n/a	39	100	200

Department: Water Operations

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue to conduct preventative maintenance and repairs on all public fire hydrants and perform required replacement in accordance with the existing MOU
- Continue to develop the transmission and distribution valve assessment and rehabilitation program
- Continue to support all Water Quality programmatic activities including any that require additional support to address new mandates (mostly unfunded) or requirements issued by Environmental Protection Agency
- Manage Compliance Programs related to Cross Connections, Fire Hydrant Use Permits, and Fats, Oil & Grease (FOG) program, perform cross connection inspection surveys at non-residential premises and implement fines and fees
- Provide contractual support through the Infrastructure Repair & Replacement contracts to execute emergency water and sewer repairs/rehabs, as well as special construction projects
- Provide leadership and support to the Lead Free DC initiative and continue to execute Voluntary Lead Service Line Replacements
- Continue to execute permanent restorations through the Public Space Restoration contract in public space that are disturbed /excavated during water and sewer construction and repair projects
- Continue to provide underground infrastructure locating and marking services through contracted services for all water and sewer underground utilities in DC, MD and VA
- Continue to identify and execute small operational Capital Improvement Projects focused on addressing water quality issues that were previously differed
- Continue to support the CIP, Developer and DDOT projects with distribution system valve isolations
- Continue implementation of the Asset Management Program to improve predictive, preventative and corrective maintenance activities and the Asset Inspection Program Pilot via use of Drone technology
- Continue implementation of mobile computing solutions for operational activities

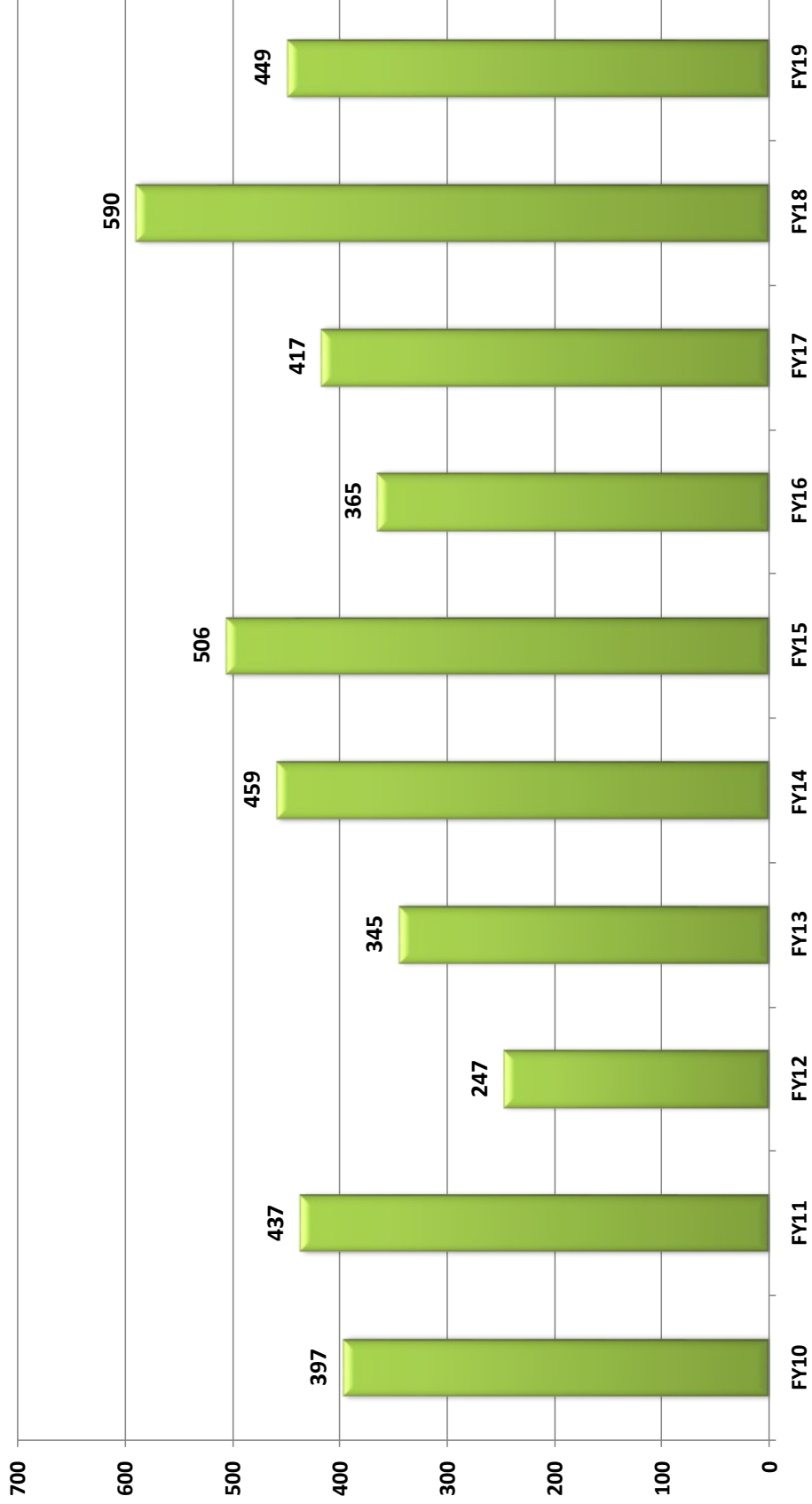
FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue to enhance and improve the service Expand water main inspection, Condition Assessment Program and cathodic protection inspection and maintenance program
- Continue to develop the transmission and distribution valve assessment and rehabilitation program to extend and realize the full life expectancy of the assets
- Continued and potentially expanded leadership and support to the Lead Free DC initiative (i.e., unknown material inventory, revised CIP focus, etc.)
- Begin evaluating Main Break Analysis and Material/Soil Testing in-house
- Expand Water Main and Sewer Collection System Inspections and Condition Assessment Programs

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

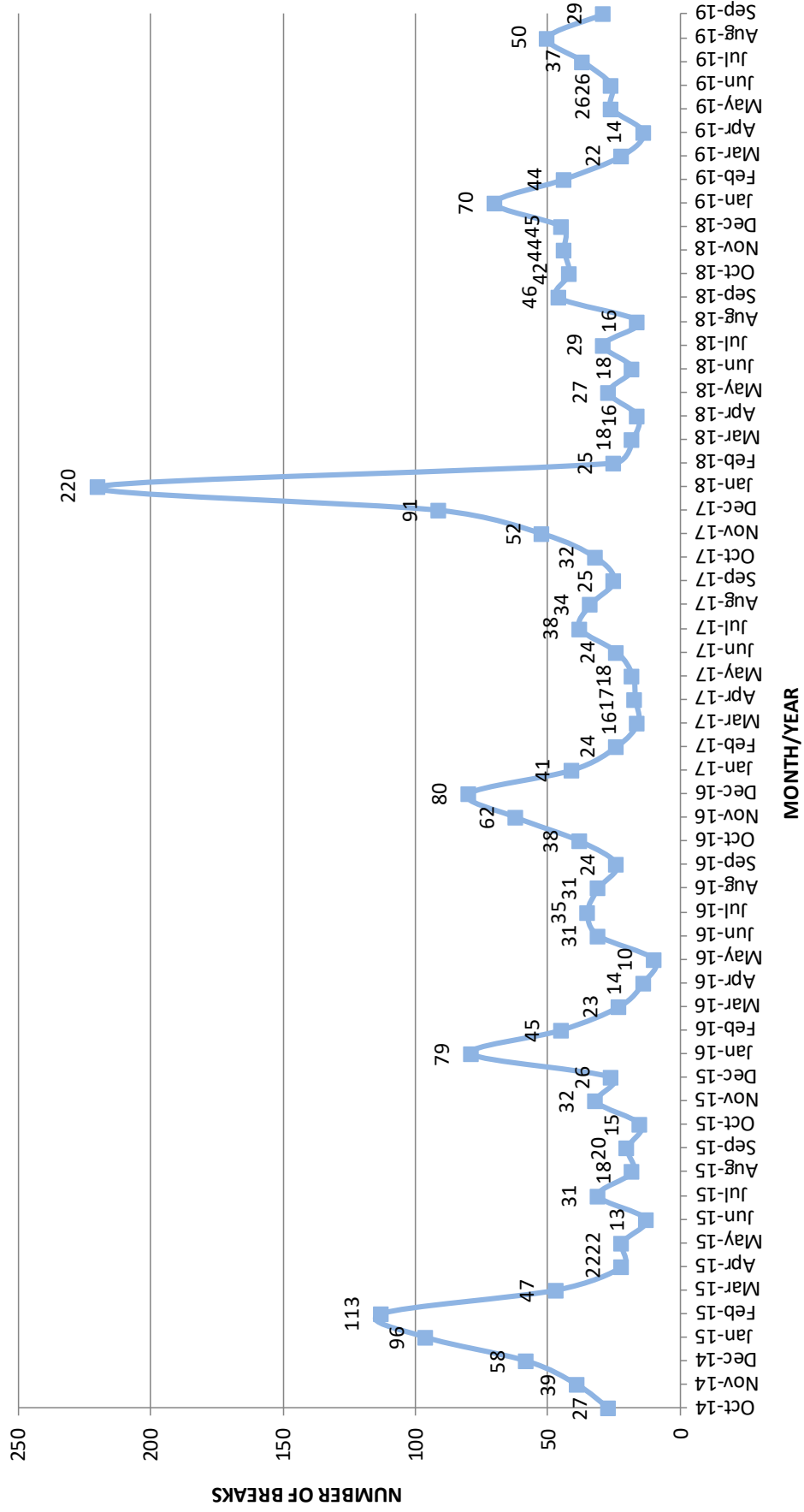
- Further deferral/delay of capital improvement projects will potentially increase overtime and other normal operational and equipment costs
- New Lead Service Replacement bill will impact both operating and capital equipment

Historical Water Main Breaks



Number of Water Main Breaks Reported FY 2010- FY 2019

HISTORICAL MONTHLY MAIN BREAK October 2014 thru September 2019

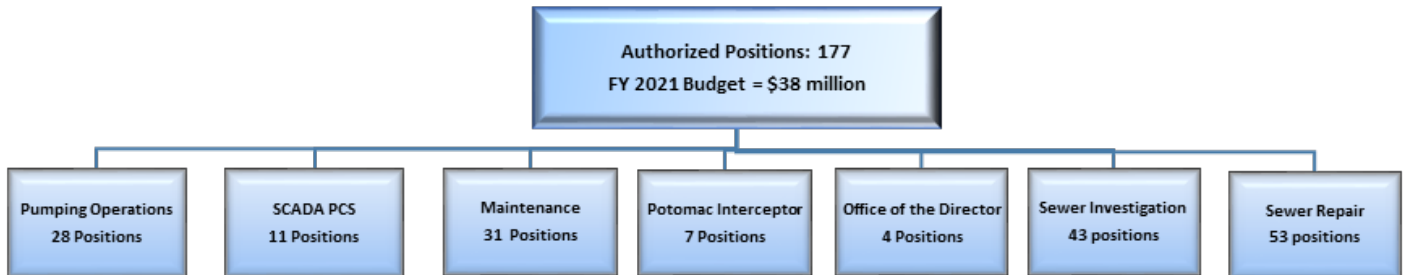


CLUSTER: OPERATIONS AND ENGINEERING

DEPARTMENT: Pumping and Sewer Operations

PURPOSE: To provide for the operation and maintenance of the sewer system which collects and transports wastewater and stormwater flows to treatment areas and authorized discharge points and deliver clean, safe and reliable drinking water to its customers with an efficient flow of sewer effluent to Blue Plains

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. In addition, provide resilient delivery of Water Distribution and Sewer Pumping services every minute of the day



Pumping Operations	SCADA PCS	Maintenance	Potomac Interceptor	Office of the Director	Sewer Investigation	Sewer Repair
Operate Water, Sewer, and Storm-water Pumping Stations, Water Storage Facilities and Water Towers	Operate and maintain Supervisory Control and Data Acquisition (SCADA) computer system, Applications, Hardware and Network Support	Plan and coordinate corrective, emergency, preventive, and predictive maintenance for pump stations	Operate and maintain Potomac Interceptor (PI) Sewer	Directs Department of Pumping Operations	Inspect public sewers and sewer laterals; Clean sewers and inlet/outlet structures	Install and repair sewer mains and sewer laterals; Install and repair catch basins
Remove screenings and debris from pump stations and prepare work order for equipment in need of repair	Operate and maintain all process instrumentation and controls, including completion of all related preventative and corrective maintenance	Maintain, troubleshoot, and repair mechanical and electrical process systems and equipment	Operate and maintain PI Flow Meters and odor control facilities and manholes	Plans and manages the capital equipment and operating funds	Monitor & Control Operations; Removal of floatable debris	Responsible for the cleaning and maintenance operations of regular catch basins, stormceptors, and grate ponds
Perform Stormwater Pollution Prevention Plan inspections and reports Inspect inflatable dams to maintain proper function during rain events	Ensure integrity of SCADA, disaster Recovery Planning, Implementation and Testing Administer and manage service contracts and special projects for department	Plan, schedule, and perform condition monitoring for process equipment, including vibration, infrared, and oil analysis	Manage Miss Utility service in Virginia and Montgomery County in Maryland; Monitor Right-of-Way to maintain integrity and prevent encroachment	Manage Maximo operations and perform reviews to evaluate effectiveness of methods in relation to asset management, uptime, Mean Time to Repair (MTTR), and Mean Time Between Failures (MTBF) metrics	Enforcement of Fats, Oils and Grease (FOG) removal program Operate and maintain sewer regulator structures	Oversees maintenance program for storm water structures, filter bio-retention and water quality catch basins cleaning

Department: Pumping and Sewer Operations

BUDGET

The Departments of Distribution and Conveyance Systems and Sewer Services are consolidated. The \$3.5 million increase in FY 2021 compared to FY 2020 is mainly for cost adjustments in personnel services and utilities for electricity usage

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Proposed	Variance	%
Headcount: Authorized	197	194	177	177	-	0%
Headcount: Filled	172	166				
Total Personnel Services	\$22,804	\$22,046	\$22,809	\$24,345	\$1,536	7%
Supplies & Chemicals	1,350	1,503	1,286	1,534	248	19%
Utilities & Rent	5,146	5,674	4,597	6,244	1,647	36%
Contractual Services	5,093	5,056	5,629	5,735	105	2%
Water Purchases	28,357	32,430				
Small Equipment	100	78	123	113	-11	-9%
Total Non-Personnel Services	40,046	44,741	11,636	13,625	1,989	17%
Department Total	\$62,850	\$66,787	\$34,445	\$37,970	\$3,525	10%
Capital Equipment	\$2,234	\$2,451	\$1,910	\$2,135	\$225	12%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
% availability of our critical assets	89%	90%	90%	95%
Odor Complaints/Sewer Overflows for the entire District of Columbia	1%	0%	0%	0%
Odor Complaints/Sewer Overflows (Potomac Interceptor Area)	1%	0%	0%	0%

Department: Pumping and Sewer Operations

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue the reliability centered maintenance for sewer pumping stations, maintain and evaluate results from the maintenance reliability programs - oil analysis, thermography, vibration analysis and ultrasound
- Continue to maintain safety awareness and best practices among our department and other stakeholders
- Continue to operate Water Pumping Stations, Reservoirs and Storage Tanks within the regulations of Safe Drinking Water Act, guidelines of DC Water for the benefit of our customers
- Continue to operate Sewer Pumping Stations, Storm water Pumping Stations, Inflatable Dams, within the requirements of the National Pollution Discharge Elimination System (NPDES) Permit, the Municipal Separate Storm Water Sewer System (MS4) Permit, Stormwater Pollution Prevent Plan (SWPPP), and DC Water Standard Operating Procedures
- Continue to work with the Department of Wastewater Engineering to design and implement improvements to become fully automated Stormwater Pump Stations
- Continue to monitor and report on Internal Benchmarking Metrics monthly, including: Departmental Cost per MG of Water/Sewer pumped, Overtime rate, Proactive maintenance rate, Energy efficiency (water pilot), Wet weather operations, Budget vs actuals
- Continue SCADA high performance graphics upgrade to all remaining sites
- Continue to report on key performance indicators, i.e. availability of critical process assets (Pumps/Screens) replacement etc. and performance visibility

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue the reliability centered maintenance for sewer pumping stations, maintain and evaluate results from the maintenance reliability programs - oil analysis, thermography, vibration analysis and ultrasound
- Continue to maintain safety awareness and best practices among our department and other stakeholders
- Continue to operate Water Pumping Stations, Reservoirs and Storage Tanks within the regulations of Safe Drinking Water Act, guidelines of DC Water for the benefit of our customers
- Continue to operate Sewer Pumping Stations, Storm water Pumping Stations, Inflatable Dams, within the requirements of the National Pollution Discharge Elimination System (NPDES) Permit, the Municipal Separate Storm Water Sewer System (MS4) Permit, DC Water Standard Operating Procedures
- Review consultants and contractor's plans, specifications, designs and engineering drawings for compliance to operational standards
- Continue to work with the Department of Wastewater Engineering to design and implement improvements to Sewer Pump Stations, as well as Bryant St PS Spill Header and Flow Meters
- Continue SCADA high performance graphics upgrade to all remaining sites
- Continue to monitor and report on Internal Benchmarking Metrics monthly, including: Departmental Cost per MG of Water/Sewer pumped, Overtime rate, Proactive maintenance rate, Energy efficiency (water pilot), Wet weather operations, Budget vs actuals

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- Deferred CIP projects has the potential for more failures and emergencies, i.e. at Main Pump Station, Storm-water Pump Stations, Inflatable Dams, etc. This impacts overtime and material costs, public confidence, environmental risks, etc.

CLUSTER: OPERATIONS AND ENGINEERING

DEPARTMENT: CIP Infrastructure Management

PURPOSE:	To Improve project delivery efficiency and outcomes; Centralize key support functions to improve service by aligning current staff and functions and bringing functions in house from consultants; and Provide enhanced project execution tools and standards to drive performance improvements
MISSION:	To provide the CIP management tools, analysis, oversight and leadership to ensure DC Water Capital and Operating Program goals and objectives are consistently met, while ensuring compliance with the required fiscal boundaries through a transparent and collaborative process

Authorized Positions: 6
FY 2021 Approved Budget = \$1.3 million

FUNCTIONS

CIP Infrastructure Management

- Manage and track the Capital Improvement Plan (CIP)
- Ensure contract documents comply with DC Water and Environmental Protection Agency (EPA) procurement regulations
- Manage DETS engineering systems hardware/software

Department: CIP Infrastructure Management

BUDGET

This is a newly established department with functions previously undertaken as part of the Engineering & Technical Services department.

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized				6	6	0%
Headcount: Filled						
Total Personnel Services				\$1,259	\$1,259	N/A
Supplies & Chemicals				0	-	N/A
Utilities & Rent				0	-	N/A
Contractual Services				0	-	N/A
Small Equipment				0	-	N/A
Total Non-Personnel Services				0	-	N/A
Department Total				\$1,259	\$1,259	N/A
Capital Equipment						N/A

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
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%

Department: CIP Infrastructure Management

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Implementation of Oracle Primavera Unifier Project Management tool (CM 14 replacement) Phase 1
- Development of ERP for capital project management in conjunction with OCFO
- Establishment of scheduling center of excellence
- Establishment of cost estimating center of excellence including standards and procedures
- Commence administration of WIFIA loan and compliance with requirements
- Digitizing of DC Water's document archive of over 11 million records
- Continue implementation of Brown Folder Optimization process to include A/E Agreements, Supplemental Agreements and task orders

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Implementation of Oracle Primavera Unifier Management tool (CM14 replacement) Phase 2
- Development of ERP for capital project management in conjunction with OCFO
- Complete transfer of project cost estimating to in-house team

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- Continue to build staff needed to establish centers of excellence for Scheduling and Cost Estimating as well as establishing support for the FY20 Unifier implementation and document management as approved by the CEO's office. Also increase staff to support Engineering's Risk and Change Management team

CLUSTER: OPERATIONS AND ENGINEERING

DEPARTMENT: Engineering and Technical Services

PURPOSE: To perform engineering planning, design, and construction management necessary to execute DC Water's Capital Improvement Program (CIP)

MISSION: 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



FUNCTIONS

Design	Engineering Management	Planning	Water & Sewer Construction	Asset Management	Quality Management
Design linear capital projects (water and sewer) and support construction efforts	Manage and track the Capital Improvement Plan (CIP)	Develop and maintain the water and sewer hydraulic models	Administer contracts for new construction, major repair and modifications to water & sewer systems and facilities	Develop, implement and oversee Asset Management Program	Develop, implement, and monitor all aspects of department's Quality Management System (QMS)
Develop all Small Diameter Water mains and select Sewer Rehabilitation designs	Ensure contract documents comply with DC Water and Environmental Protection Agency (EPA) procurement regulations	Develop the 10-year CIP for all water and sewer system infrastructure improvements	Inspect construction; Manage critical customer concerns as necessary with government leadership	Ensure asset management policies and practices are consistent and being followed	Lead the QMS integration and training within the department
Manage outside professional engineering consulting firms	Manage DETS engineering systems hardware/software	Prepare water and sewer master plans	QA/QC Inspection of Precast structures		Ensure compliance with quality plans and DC Water Standards

Department: Engineering and Technical Services

BUDGET

The overall budget has remained relatively flat. The FY 2021 budget excludes funding for the newly established CIP Infrastructure Management department.

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	166	150	135	135	-	0%
Headcount: Filled	127	121				
Total Personnel Services	\$21,621	\$21,989	\$21,433	\$22,357	\$924	4%
Supplies & Chemicals	127	193	145	125	(20)	-14%
Utilities & Rent	496	636	517	579	62	12%
Contractual Services	2,258	1,910	2,792	3,085	293	10%
Small Equipment	38	62	75	50	(25)	-33%
Total Non-Personnel Services	2,919	2,802	3,529	3,839	310	9%
Department Total	\$24,540	\$24,790	\$24,962	\$26,196	\$1,234	5%
Capital Equipment			\$20	\$492	\$472	2360%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
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%

Department: Engineering and Technical Services

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Acquire permits and approvals needed to execute CIP projects
- Process As-builts for current development projects; create record drawings for future reference and store in drawing and data storage application. Plan to produce at least 100 As-builts and record drawings
- Advertise 11 projects for construction, including projects with at least 11 miles of small diameter watermains. Continue to meet small diameter water main renewal goal of 1% (or 11 mi) per year
- Start design of 15 new projects, including six with small diameter watermains
- Complete 1100 sheets of design plans for small diameter watermain
- Submit 2200 sheets of traffic control plans and other permit drawings to DDOT and other permitting agencies
- Increase mileage of sewer rehab work to be executed by In-House design staff (including survey, CAD, engineers, and project managers)
- Validate and prioritize CIP projects using the Enterprise Asset Management Framework
- Identify potential alternative drinking water source(s) to the Potomac River

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue with condition assessment of major sewers including East and West Outfall Sewer, and East and West Outfall Relief Sewer, East Side Interceptor, Anacostia Siphons
- Inspection of local sewers (40 miles/year)
- Condition assessment of critical large diameter water mains
- Identify rehabilitation needs for water and sewer linear assets
- Move forward with the next steps of the identified potential alternative drinking water source study
- Further development of an on-line water quality monitoring system in the water distribution system
- Advertise projects with at least 11 miles of small diameter watermains. Continue to meet small diameter water main renewal goal of 1% (or 11 mi) per year
- Develop Master Plan of the water distribution system and wastewater collection system
- Obtain IMA approval for upcoming joint use project cost shares
- Development of ERP for capital project management in conjunction with Finance
- Digitizing of DC Water's document archive of over 11 million records
- Validate and prioritize CIP projects using the Enterprise Asset Management Framework
- Acquire permits and approvals needed to execute CIP projects

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- Staffing to support the capital programs
- Increase in operating costs due to ramping up of CIP projects. Examples include support for isolating water mains for condition assessment

CLUSTER: OPERATIONS AND ENGINEERING

DEPARTMENT: Wastewater Engineering

PURPOSE: Oversee the construction and rehabilitation of wastewater treatment, water, and sewer pumping facilities to meet all required National Pollutant Discharge Elimination System (NPDES) and consent decree requirements, and continued performance for critical functionality of assets

MISSION: Plan and execute a Capital Improvement Program (CIP) that supports DC Water in effectively and efficiently meeting the NPDES standards



FUNCTIONS

Technical Support	Program Management	Blue Plains Project
Review and approve PCS, SCADA, and Instrumentation and Control (I&C) engineering documents for compliance with established guidelines and standards	Develop and maintain long-term facility planning Provide staff support for environmental policy affecting DC Water	Perform construction management of new construction, major repairs and modifications to process and non-process facilities
Manage the engineering responsibilities for all PCS and SCADA related projects from planning, design, construction, commissioning and operational support	Provide engineering data for development and maintenance of the Capital Improvement Plan	Administer contracts for construction management, new construction, major upgrades, modifications, and start-up to the Blue Plains Advanced Wastewater Treatment Plant, pump stations, and facilities that serve the water distribution and wastewater collection systems
Coordinate with all DC Water user and customer groups/ departments on all SCADA, PCS, and I&C matters	Generate bid documents for construction and rehabilitation projects	Perform design reviews and coordinate construction work with other departments at Blue Plains

Department: Wastewater Engineering

BUDGET

The \$0.4 million decrease in FY 2021 below the FY 2020 budget is for personnel services cost adjustments.

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Proposed	Variance	%
Headcount: Authorized	18	15	18	17	(1)	-6%
Headcount: Filled	16	12				
Total Personnel Services	\$1,767	\$2,310	\$3,239	\$2,857	(\$382)	-12%
Supplies & Chemicals	0	13	15	12	(3)	-20%
Utilities & Rent	0	0	0	0	-	N/A
Contractual Services	0	736	739	730	(10)	-1%
Small Equipment	0	5	2	0	(2)	-100%
Total Non-Personnel Services	0	754	756	742	(15)	-2%
Department Total	\$1,767	\$3,064	\$3,995	\$3,599	(\$396)	-10%
Capital Equipment					\$0	N/A

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Design Lock-In and Stag-gating with comment closure	N/A	2	3	2
Construction Contracts Awarded	N/A	3	4	2
Construction Contracts Closed	N/A	2	1	3

Department: Wastewater Engineering

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Issue Design-build Contract for Segment C of Floodwall at Blue Plains
- Start design on upgrade to Blue Plains influent structures
- Advertise construction contract for Reclaimed Effluent Pump Station Upgrade
- Recruit, hire and integrate into the department, a planning team and a task order construction team for the department including additional design manager
- Begin construction of Filter Influent Pumps (FIPS) Replacement Project
- Start detailed design on electrical upgrades of the screening, grit and primary facilities
- Issue pre-selection vendor for Reclaimed Effluent Pump Station Upgrades
- Issue Wastewater Treatment Program Manager II contract
- Begin construction of Gravity Thickener Upgrades Project

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Advertise and begin construction for Central Operating Facility Electrical Upgrades
- Begin construction of Reclaimed Effluent Pump Station Upgrade Project

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

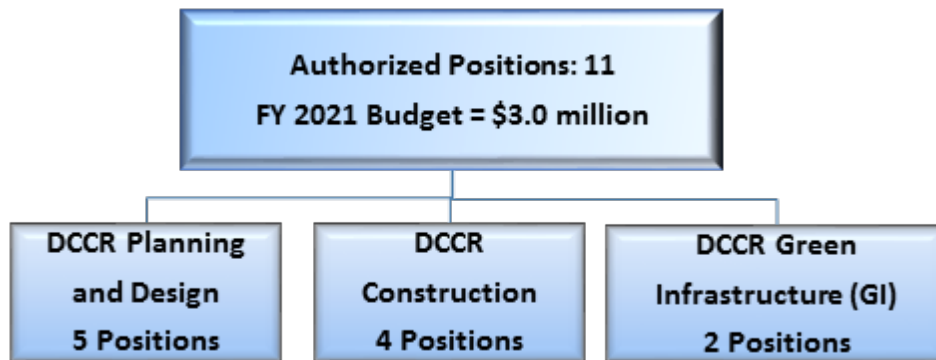
- Final completion of the Tunnel Dewatering Pump Station, Enhanced Clarification Facility Project and closeout of the Filtrate Treatment Facility would increase operations and maintenance costs

CLUSTER: OPERATIONS AND ENGINEERING

DEPARTMENT: Clean Rivers

PURPOSE: To oversee the Authority’s DC Clean Rivers to reduce combined sewer overflows to bring them into compliance with the District water quality standards, and provide flood relief to neighborhoods in the Northeast Boundary section of the City. The project is a combination of tunnel systems and Green Infrastructure

MISSION: To develop, design, construct and implement the Authority’s 25-year DC Clean Rivers Project (aka Combined Sewer Overflow Long Term Control Plan) that includes federally enforceable consent decree driven milestones



FUNCTIONS

DCCR Planning and Design	DCCR Construction	DCCR Green Infrastructure (GI)
Manage and oversee the planning and design phase of the \$2.7 billion, 25 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 Memorandum of Understanding 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

Department: Clean Rivers

BUDGET

The \$0.2 million increase in FY 2021 compared to the FY 2020 budget is for the Green Infrastructure (GI) certification program

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	15	15	11	11	-	0%
Headcount: Filled	9	8				
Total Personnel Services	\$2,163	\$1,760	\$2,359	\$2,266	(\$93)	-4%
Supplies & Chemicals	3	1	27	22	(5)	-19%
Utilities & Rent	34	44	126	114	(12)	-10%
Contractual Services	74	371	249	549	300	120%
Small Equipment	0	0	0	0	-	0%
Total Non-Personnel Services	111	415	402	685	283	70%
Department Total	\$2,274	\$2,175	\$2,761	\$2,951	\$190	7%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Meet all CSO LTCP consent decree milestones	100%	100%	100%	100%

Department: Clean Rivers

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue construction of Northeast Boundary Tunnel (NEBT)
- Continue planning and design for the Potomac River Tunnel (PRT) system
- Complete design and procurement of CSO-025/026 Sewer Separation (PR-C)
- Complete post-construction monitoring of RC-A and practicability assessment of GI within Potomac sewer shed
- If Green Infrastructure (GI) is determined to be practicable, begin planning and design for Rock Creek GI Project 2
- Continue the deployment of Clean Rivers' assets into DC Water's enterprise asset management system
- Continue the coordination of preventive maintenance of Clean Rivers assets
- Continue the maintenance of GI facilities
- Regulatory requirements compliance
- Lead development of Integrated Plan evaluating the DC Water's capital programs
- Support development and study of alternative water sources

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue construction of Northeast Boundary Tunnel (NEBT)
- Continue planning and design for Potomac River Tunnel (PRT)
- Begin construction of PR-C Sewer Separation
- If GI is determined to be practicable, complete design and begin procurement for Rock Creek GI Project 2
- Continue the coordination of preventive maintenances of Clean Rivers assets
- Continue the maintenance of GI facilities
- Support implementation of recommendations developed in the Integrated Plan
- Regulatory requirements compliance

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- If GI is determined to be practicable, Clean Rivers will assess the staffing resources to oversee the program management staff in the development of contract documents, bid support, design support during construction, and construction oversight management

CLUSTER: OPERATIONS AND ENGINEERING

DEPARTMENT: Permit Operations

PURPOSE: Support the District of Columbia’s construction permit process through coordinated effort with the Department of Consumer and Regulatory Affairs (DCRA), the District Department of Transportation (DDOT) and the Department of Environment and Energy (DOEE). This is done through the review and approval of plans for new construction and/or renovations that impact the water or sewer system

MISSION: To manage DC Water’s development and permit services

Authorized Positions: 21
FY 2021 Budget = \$4.2 million

FUNCTIONS
Review and approve permit applications, issue work orders for the inspection of proposed work
Ensure development community compliance with DC Water design standards, criteria and specifications
Assess and collect fees for permit review, fixed fee services, inspection services, System Availability Fees, and manage the fee collection process
Create accounts for collected fees and manage return of unused reimbursable fees
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 DDOE) in support of the District's permit procedures
Update and/or create customer service records (Premises) and the GIS database

Department: Permit Operations

BUDGET

The \$0.5 million increase in FY 2021 compared to FY 2020 budget is for personnel cost adjustments for one additional position allocated in FY 2020 and contractual services

Description	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	15	15	20	21	1	5%
Headcount: Filled	19	19				
Total Personnel Services	\$2,205	\$2,205	\$2,920	\$3,085	\$165	6%
Supplies & Chemicals	12	38	41	41	-	0%
Utilities & Rent	336	353	377	403	26	7%
Contractual Services	128	153	355	636	281	79%
Small Equipment	0	11	0	0	-	0%
Total Non-Personnel Services	476	555	773	1,080	307	40%
Department Total	\$2,680	\$2,760	\$3,693	\$4,165	\$472	13%
Capital Equipment					\$0	N/A

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Process all permit applications in accordance with the service level agreement timeframe (85%)	83%	85%	85%	85%

Department: Permit Operations

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Assess permit review fees and adjust as needed to meet future needs
- Implement on-line payment portal to expedite application review process
- Implement on-line permit application process and tracking system
- Integrate 3PP with Maximo and Customer Information Systems to streamline receipt and deposit of fees

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Replace the existing permit review model with an integrated program, Enterprise Resource Planning, that combines on-line payments, permit processing, and work-order tracking, with customer portal for management of accounts and requesting of inspection services
- Increase the field component of the permits department to include an as-built component that validates in the field the completion of projects
- Reduce the residence time frame of customer accounts and process refunds within 2 years of project initiation approximately 50% of the time and within 5 years 100% of the time

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- None

CLUSTER: CUSTOMER EXPERIENCE

DEPARTMENT: Customer Care

PURPOSE: To ensure that DC Water delivers a satisfying experience for customers by providing timely and accurate billing, appropriate meter replacement and maintenance as well as responding to customer inquiries through multiple channels in compliance with District of Columbia laws and regulations

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



FUNCTIONS

Office of the Director	Collections and Escalations	Revenue Assurance	Contact Center	Center of Excellence	Billing/ Meter
Leads Customer Service operations	Monitors delinquent accounts based on customer payment history	Manages large customer accounts and billing processes. Processes bill exceptions, adjustments and cancellations	Provides timely responses to customer inquiries across multiple channels	Defines and documents new processes. Identifies gaps and improves existing processes	Manages mass market customer accounts and billing processes. Processes bill exceptions, adjustments and cancellations
Defines and manages department initiatives and strategic programs	Manages disputes, hearings, and external requests Manages property lien filing, dunning process, receivership, and tax sale	Manages the new accounts creation including impervious area GIS database	Addresses billing issues and inquires	Supports the Customer Information System (CIS) Administers Automated Meter Infrastructure (AMI) System	Obtains manual meter reads. Performs field turn on and disconnect
	Administers the DC Water Customer Assistance Programs (CAP) and Serving People By Lending A Supporting Hand (SPLASH) programs	Maintains, installs, tests, repairs and replaces large meters. Manages meter lab and inventory	Provides 24/7 Emergency customer call response and dispatch	Manages and analyzes department budget and revenue	Maintains, installs, tests, repairs and replaces mass market meters

Department: Customer Care

BUDGET

The \$0.9 million reduction in FY 2020 compared to the FY 2021 budget is mainly for the reallocation of credit card fees to the Finance Department, offset in part by increase in personnel service adjustments

Description	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	126	126	122	123	1	1%
Headcount: Filled	115	107				
Total Personnel Services	\$13,577	\$13,034	\$14,851	\$15,300	\$449	3%
Supplies & Chemicals	104	60	88	69	-19	-21%
Utilities & Rent	1,840	874	315	394	79	25%
Contractual Services	5,685	6,668	5,918	4587	-1,331	-22%
Small Equipment	10	8	65	10	-55	-85%
Total Non-Personnel Services	7,640	7,609	6,386	5,060	-1,326	-21%
Department Total	\$21,217	\$20,643	\$21,237	\$20,360	-\$877	-4%
Capital Equipment	\$6,263	\$3,658	\$5,498	\$2,930	-\$2,568	-47%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Calls answered within 40 seconds	88%	86%	85%	85%
Abandonment rate	NA	3%	5%	5%

Department: Customer Care

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Implement Contact Center phone system upgrade
- Continue with the Advanced Metering Infrastructure (AMI) Phase II project to replace 12,000 small meters
- On-going Large Meter Replacement project
- Begin department realignment to achieve strategic and operational priorities
- Implement new customer engagement survey tool
- Initiate Automated Meter Infrastructure software upgrade
- Implement Manual Meter Reading software upgrade

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Implement Interactive Voice Response system upgrade, interface with new Contact Center phone system, and enable speech analytics
- Mobilize Contact Center for telework
- On-going Large Meter Replacement project
- Complete Automated Meter Infrastructure software upgrade
- Refresh impervious area database
- Improve business self-service for large commercial accounts

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- Continued implementation of Advanced Metering Infrastructure (AMI) will impact personnel and non-personnel operations and maintenance cost

CLUSTER: CUSTOMER EXPERIENCE

DEPARTMENT: Information Technology

PURPOSE: To identify, define, develop and support an integrated set of solutions that leverages people, process and technology to improve reliability, increase efficiency, reduce cost, drive innovation and improve the employee and customer experience

MISSION: To provide a safe and reliable state-of-the-art information technology platform capable of adapting to the changing needs of our internal and external customers. 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



FUNCTIONS

Infrastructure & Operation	Enterprise Solutions	Project Management Office	Office of the CIO & Other
Provide technical support for applications and manage the IT infrastructure; Develop and provide standards for System Architecture/ Integration	Support DC Water's Authority-wide and business unit goals, objectives and business functions	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	Manage Information Technology initiatives, functions and assets of the enterprise
Maintain DC Water's technology standards. Implement and support radio systems/phone	Support the IT Governance process and maintain information needed to make sound business decisions for Local and Executive IT Steering Committees (ESC and LSCs)	Integrate and provide product support for the financial, payroll, maintenance and customer information and billing, Automated Meter Reader (AMR), Interactive Voice Response (IVR), Asset Management (AM) systems	Manage project implementations, database administration and related budgets
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 and project management services for the Authority	Design and implement Cyber security strategy for the enterprise. Test and validate Cyber protections
Manage the Solution Center (Help Desk)	Maintain, service and enhance DC Water's enterprise applications	Support project planning, management, and implementation	Support Disaster Recovery for the Authority

DEPARTMENT: Information Technology

BUDGET

The \$0.5 million decrease in FY 2021 compared to the FY 2020 budget is mainly for planned reduction in the use of consultants for IT functions, offset by personnel service cost adjustments

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Proposed	Variance	%
Headcount: Authorized	28	28	28	28	-	0%
Headcount: Filled	28	28				
Total Personnel Services	\$4,359	\$4,660	\$4,502	\$4,822	\$320	7%
Supplies & Chemicals	16	42	12	4	(8)	-67%
Utilities & Rent	167	152	152	163	11	7%
Contractual Services	6,556	6,924	6,153	5,319	(834)	-14%
Small Equipment	92	94	94	77	(17)	-18%
Total Non-Personnel Services	6,831	7,212	6,411	5,563	(848)	-13%
Department Total	\$11,189	\$11,541	\$10,913	\$10,384	(\$529)	-5%
Capital Equipment	\$7,589	\$5,871	\$13,140	\$12,050	(\$1,090)	-8%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
98% Network uptime round the clock	99%	99.8%	98%	99%
96% of high priority tickets completed within 4 hours	97%	95%	96%	98%
60% Tickets closed by Tier 1 support	69%	N/A	60%	71%
50% of Projects Completed on-time	58%	65%	50%	80%
98% Network uptime during peak hours	99%	99.9%	98%	99.5%

DEPARTMENT: Information Technology

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Oracle Unifier & Primavera Cloud implementation
- Enterprise Resource Planning (ERP) implementation for financial, procurement and human resources functions
- Impervious Area System Enhancements
- Maximo Upgrade & migration to cloud
- GIS Upgrade & Migration to cloud
- Aclara Upgrade
- Pipe Defects Analytics Phase 3
- Third Party Portal payment gateway and other enhancements
- VertexOne Enhancements to Customer Information Billing system
- Brown Folder Optimization Phase V
- Customer Master Data—Enhance customer master data to include more enhanced customer attributes (senior citizen, low income, business type, etc) for business-to-business
- Meter Reading App
- Main Break Predictive Model
- Microsoft Dynamics for Customer Engagement
- New cloud password reset tool
- Microsoft Teams for Collaboration and Telephony
- Hello for Business, moving towards a passwordless end-user experience

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Complete Enterprise Resource Planning (ERP) project implementation
- Mobility for Plant & Field
- 3PP Enhancements
- Facilities Mobility Enhancements
- IVR Upgrade/Replacement
- Impervious Area System Enhancements
- VertexOne Enhancements and Upgrade
- Linear Assets Data Updates
- Azure Data Warehouse
- Robotic Process Automation Solution
- Lead Service Replacement/PSR Updates

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- Impervious area enhancements will significantly reduce the need for GIS technical support resources for this activity. Resources will be repurposed for other strategic activities to enhance the platform
- The ERP Implementation project will require a sizable amount of time from the IT technical resources to support the project's needs during FY 2020 and 2021. Additionally, IT will need to onboard Oracle ERP resource (or train existing resources) in FY 2021 to support customer needs that will not be covered by the vendor's support team

CLUSTER: INDEPENDENT OFFICES

DEPARTMENT: Office of the Chief Executive Officer (CEO)

PURPOSE: The CEO/General Manager’s Office administers, plans, organizes, and directs the operations of DC Water

MISSION: To provide DC Water customers with access to affordable, safe and reliable utility infrastructure and services

Authorized Positions: 15
FY 2021 Budget = \$4.6 million

FUNCTIONS

Strategic Planning	Operations	Performance
Provide overall operational and policy direction in support of the Board of Directors’ Strategic Plan	Organize, plan and direct all operations of the Authority Ensure development and implementation of improvement processes to increase operational efficiencies	Facilitate development of cross-functional Enterprise Performance Plans Establish and maintain an Enterprise Program Management Office to enhance collaboration, governance, and accountability across the Authority

Department: Office of the Chief Executive Officer (CEO)

BUDGET

The Approved FY 2021 budget increased slightly over the Approved FY 2020 budget due to personnel services adjustments.

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actual	Approved	Approved	Variance	%
Headcount: Authorized	14	18	15	18	3	20%
Headcount: Filled	12	15				
Total Personnel Services	\$3,466	\$3,524	\$3,283	\$4,184	\$901	27%
Supplies & Chemicals	69	13	13	13	0	-1%
Utilities & Rent	27	31	29	24	-5	-18%
Contractual Services	842	1,309	1001	985	-16	-2%
Small Equipment	0	0	0	0	0	0%
Total Non-Personnel Services	939	1,353	1,043	1,021	-22	-2%
Department Total	\$4,405	\$4,877	\$4,326	\$5,206	\$880	20%
Capital Equipment						

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Implement all policies and directives of the Board of Director's	100%	100%	100%	100%

Department: Office of the Chief Executive Officer (CEO)

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continuously monitor the “Blueprint” and publish status of Key Performance Indicators (KPIs)
- Continue/expand engagement with the community through the Stakeholder Alliance and other forums
- Complete implementation of the Culture and Engagement Roadmap designed to build a high performing culture
- Implementation of initial actions in our new Sustainability strategy, including engagement with District-wide initiatives like Sustainability 2.0 and Resilient DC
- Watershed-based stakeholder engagement, including continued support of the Anacostia freshwater mussel project to improve water quality and protect our investment in cleaning the Anacostia River
- Participation in a sector-wide initiative with leading water utilities to capture best-practices in Business Case Evaluation and CIP Prioritization
- Support the development and delivery of a national Women of Water event in the DC Region to showcase and recognize women leaders in the water sector
- Continue assessment and implementation of opportunities to enhance key business processes, including but not limited to meter to cash and procurement
- Develop a Program/Project Optimization framework, approach, operating model, and create a community of practice and standard approaches to drive projects from idea to implementation
- Work with leadership to identify, gather and synthesize key measures that will validate DC Water’s progress against critical short-term initiatives and long-term strategic objectives
- Identify and design a comprehensive DC Water enterprise-wide governance, risk, and compliance framework

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- No major activities

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- No major items identified

CLUSTER: INDEPENDENT OFFICES

DEPARTMENT: Office of the Secretary

PURPOSE: Serves as the Authority’s executive level business entity that manages the day to day activities of the Board of Directors

MISSION: To support DC Water’s Blueprint/Strategic Plan by effectively managing assigned resources to accomplish the duties of the Office of the Secretary (Board)

**Authorized Positions: 2
FY 2021 Budget = \$0.6 million**

FUNCTIONS
Manage logistics for the Board of Directors and Committee meetings, Public Hearings, Workshops, the 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 execute custodial oversight of all books, records and official documents of the board
Administer the subpoena process and provide Notary Service for the Authority

Department: Office of the Secretary

BUDGET

The FY 2021 budget is relatively flat compared to the FY 2020 budget

Description	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Approved	FY 2021 Approved	Change from FY 2020	
					Variance	%
Headcount: Authorized	2	2	2	2	0	%
Headcount: Filled	2	2				
Total Personnel Services	\$354	\$330	\$320	\$338	\$27	9%
Supplies & Chemicals	12	26	17	17	-1	-6%
Utilities & Rent	5	6	4	3	-2	-33%
Contractual Services	228	204	271	272	-10	-4%
Small Equipment	0	0	0	2	1	0%
Total Non-Personnel Services	245	236	293	294	-12	-4%
Department Total	\$599	\$567	\$613	\$632	\$14	0%
Capital Equipment						

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Projection	FY 2020 Target	FY 2021 Targets
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%

Department: Office of the Secretary

FY 2020 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, as needed
- 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 the 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
- Continue accomplishing all duties as required and further enhance processes, as needed

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- No major changes anticipated

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

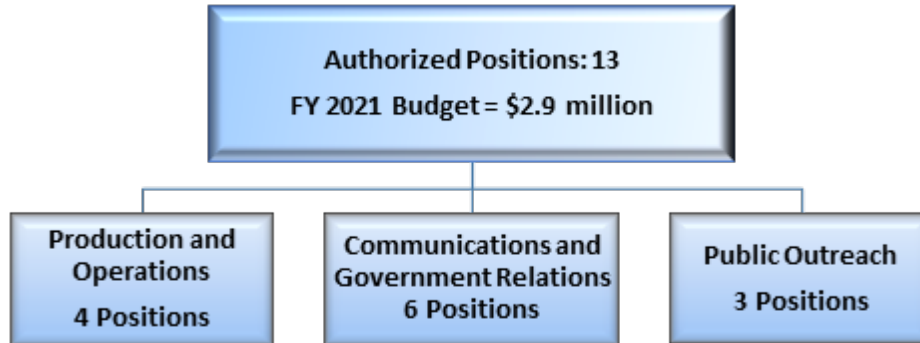
- No direct impact

CLUSTER: CUSTOMER EXPERIENCE

DEPARTMENT: Marketing and Communications

PURPOSE: To promote and enhance the value of our services by listening to and engaging with our customers

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



FUNCTIONS

Production and Operations	Communications and Government Relations	Public Outreach
Produce graphics, collateral and videos that support a wide range of trainings and programs across the Authority. Compose script for the Authority’s Stars of Water Event	Prepare speeches, testimony, editorials, special reports and stakeholder presentations. Produce content for and manage Authority’s social media accounts. Respond to customer and stakeholder inquiries	Maximize partnerships with local agencies, organizations and other critical community stakeholders; Manage the Authority’s participation in a host of community outreach activities and initiatives; coordinate annual town hall meetings and special media events; Manage Speakers Bureau
Manage the production of the Annual Report, Water Quality Report, newsletters, Leadership Updates, exhibits, marketing materials and the content of specific segment of the DC Water website	Produce reports, newsletters, brochures, DC Water exhibits and materials. Provide editing support for other departmental communication projects and produce special high-profile project communications materials	Manage outreach program to engage community stakeholders such as Mayor’s Office of Community Relations and Services (MOCRS), DC Council, Advisory Neighborhood Commissioners (ANCs), civic associations, residents and businesses about upcoming and ongoing construction projects, increase their understanding of the condition of our aged Infrastructure, and better understand their needs and concerns relating to projects affecting quality of life
Produce Public Service Announcements, commercials, videos as well as produce live and archived webcasts of Board meetings and manage stakeholder presentations. Manage Plant tours and develop departmental budget	Respond to local/national media inquiries, manage website content; track and strategically influence relevant policy proposals. Establish and enhance working relationships 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

Department: Marketing and Communications

BUDGET

The approved FY 2021 budget is higher than the FY 2020 approved budget by approximately \$0.3 million primarily due to salary adjustments and additional cost to produce the Water Quality Report twice yearly, beginning in FY 2021

Description	FY 2018		FY 2019		FY 2020		FY 2021		Change from FY 2020	
	Actuals	Actual	Approved	Approved	Approved	Approved	Variance	%		
Headcount: Authorized	13	13	13	13	13	13	0	0%		
Headcount: Filled	13									
Total Personnel Services	\$1,920	\$1,905	\$1,943	\$2,083	140	7%				
Supplies & Chemicals	17	\$15	14	14	0	0%				
Utilities & Rent	36	\$34	27	26	-1	-4%				
Contractual Services	484	\$773	617	732	115	19%				
Small Equipment	0	\$2	12	12	0	0%				
Total Non-Personnel Services	537	823	671	784	113	17%				
Department Total	\$2,457	\$2,728	\$2,614	\$2,867	\$253	10%				
Capital Equipment										

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Projected	FY 2020 Targets	FY 2021 Targets
Publication of DC Water's Annual Report	1	1	1	1
Publication of Customer Newsletter	10	10	4	4
Publication of Clean Rivers' Update	2	2	2	2
Publication of Employee Newsletter	11	11	11	11
Publication of Water Quality Report	1	1	1	1
Community meetings/outreach re: lead, rates, CSO/CIP projects, etc.	173	173	100	100

Department: Marketing and Communications

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Develop and implement a Strategic Communications Plan to support The Blueprint, DC Water's strategic plan
- Expand our customer engagement and crisis communications capabilities, utilizing the additional support of an outside public relations firm
- Launch a campaign to demonstrate the value of DC Water's services and build support for needed investments in infrastructure
- Work with the DC Clean Rivers Project team to engage with residents, businesses and commuters impacted by construction on the Northeast Boundary Tunnel Project
- Expand DC Water's internal (employee) engagement, working closely with People and Talent, the Office of the CEO and other departments
- Create a unified planning calendar for all marketing and communications activities

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- No major changes anticipated

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

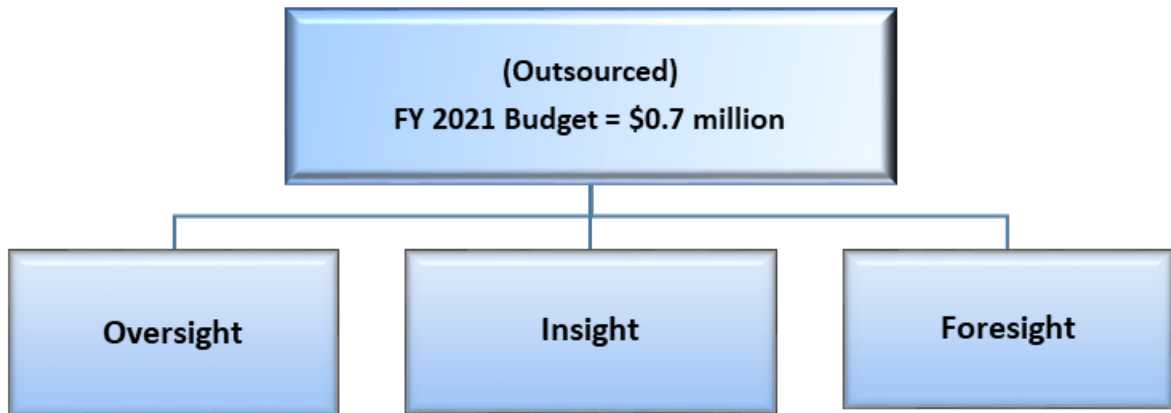
- No direct impact

CLUSTER: INDEPENDENT OFFICES

DEPARTMENT: Internal Audit

PURPOSE: Assists the Authority 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

MISSION: To provide independent, objective assurance and consulting activity that is guided by a philosophy of adding value to improve the operations of DC Water



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

Department: Internal Audit

BUDGET

The \$0.1 million reduction in FY 2021 compared to FY 2020 is due to reduced contractual services hours for projected audit workplan

Description	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized						
Headcount: Filled						
Total Personnel Services						
Supplies & Chemicals						
Utilities & Rent	\$5	\$11	\$7	\$7	-	0%
Contractual Services	891	845	878	735	-143	-16%
Total Non-Personnel Services	896	856	885	742	-143	-16%
Department Total	\$896	\$856	\$885	\$742	-\$143	-16%
Capital Equipment						

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Internal Audit Work Planned	14	16	14	13

Department: Internal Audit

FY 2020 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 audit 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
- Begin and complete solicitation for a new firm to conduct the Authority's internal audit function

FY 2021 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 audit 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

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- No direct impact

CLUSTER: INDEPENDENT OFFICES

DEPARTMENT: Legal Affairs

PURPOSE: To provide legal advice and services to the Board of Directors, CEO and General Manager and the DC Water departments

MISSION: To provide professional, timely, and useful legal advice and services, manage the services of outside counsel as needed, and to minimize liability exposure by recommending and implementing appropriate policies, practices, and procedures

Authorized Positions: 17
FY 2021 Budget = \$6.6 million

FUNCTIONS

Litigation	Administrative Law
Appellate	Board of Directors Support
Bankruptcy	Organize, plan and direct all operations of the Authority
Contract	Ensure development and implementation of improvement processes to increase operational efficiencies
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

Department: Legal Affairs

BUDGET

The approved FY 2021 budget is higher than the approved FY 2020 budget by \$0.4 million primarily due to two additional headcount and increased legal contingency

Description	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
	Actuals	Actual	Approved	Approved	Variance	%
Headcount: Authorized	16	16	15	17	2	13%
Headcount: Filled	14	8				
Total Personnel Services	\$2,405	\$2,827	\$2,610	\$2,844	\$234	9%
Supplies & Chemicals	7	6	6	3	-3	-52%
Utilities & Rent	18	21	24	20	-4	-16%
Contractual Services	3,929	3,889	3,582	3,776	194	5%
Small Equipment	0	0	0	0	0	0%
Total Non-Personnel Services	3,953	3,916	3,612	3,800	188	5%
Department Total	\$6,359	6,743	\$6,222	\$6,644	\$422	7%
Capital Equipment						

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Hours of employee time spent on direct work 1,700	1,700	1,700	1,700	1,700

Department: Legal Affairs

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue to manage and support litigation to include complex matters
- 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 Innovative initiatives
- Support environmental permits – National Pollutant Discharge Elimination System (NPDES), Total Maximum Daily Limit (TMDL), Municipal Separate Storm Sewer System (MS4)
- Continue to review and revise regulations
- Provide support to Anacostia Sediment and Complex Insurance Claims Litigation actions
- Enforcement actions to collect delinquent revenues

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- No major changes anticipated

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- Provide legal support in environmental and financial issues affecting DC Water CIP Projects and ongoing operations
- Provide legal support to ongoing Long Term Control Plan (LTCP), Green Infrastructure, and TMDL litigation activities

CLUSTER: PEOPLE AND TALENT

DEPARTMENT: Human Resources

PURPOSE: Support the Authority and Executive Team by creating organizational alignment and line of sight; work collaboratively with all Departments to improve the employee experience; recruit talent who will embrace DC Water; and focus on employee strengths

MISSION: To deliver high quality, innovative, valued and timely labor resources 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



FUNCTIONS

Talent and Development	Operations	Labor Relations	Executive Vice President's Office
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 with Disabilities Act, Drug and Alcohol testing, Workers Compensation, and Employee Assistance Programs	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

DEPARTMENT: Human Resources

BUDGET

The approved FY 2021 budget is lower than the approved FY 2020 budget by approximately \$0.4 million primarily due to workers' compensation claims

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actual	Approved	Approved	Variance	%
Headcount: Authorized	27	27	29	30	1	3%
Headcount: Filled	10	24				
Total Personnel Services	\$4,255	\$4,167	\$4,930	\$4,772	-\$158	-3%
Supplies & Chemicals	9	13	35	29	-6	-17%
Utilities & Rent	37	53	24	27	3	13%
Contractual Services	4,308	2,262	5,039	4,790	-249	-5%
Small Equipment	0	0	0	0	0	N/A
Total Non-Personnel Services	4,356	2,328	5,098	4,846	-252	-5%
Department Total	\$8,609	\$6,495	\$10,028	\$9,619	(\$409)	-4%
Capital Equipment						

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Projection	FY 2020 Targets	FY 2021 Targets
120 days from job posting to hire	112	112	107	107
10 days to initiate disciplinary action	7	7	7	7
14 days new hire benefit set-up	13	13	10	10
22.5 Average number training hours per FTE	22.7	22.7	25	25
Comparison DC Water Employees Compensation (100%) vs Market 50 th -tile	100%	100%	100%	100%

DEPARTMENT: Human Resources

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Implement Enterprise Resource Planning (ERP) application for the core HR, Payroll, Benefits, Self Service, and Applicant Tracking enterprise system
- Coordinate management and team building trainings for DC Water employees
- Expand wellness program for Employees of DC Water
- Extend research capabilities for compensation with the purpose of addressing grade and salary structure across the organization
- Incorporate professional development assessments such as DiSc and “Seven (7) Habits for Highly Effective People” as part of the Succession Development Program
- Develop and Launch a Developing Leaders Program
- Continue to review and update DC Water policies and procedures with the Unions after impacts and effects of collective bargaining agreement
- Negotiate two Working Conditions Agreements for the American Federation of Government Employees (AFGE) Locals 631 and 872
- Develop 457(b) Roth retirement options that would enable employees to contribute after-tax dollars to their retirement
- Explore using ERP to implement Annual Non-Union Merit and Bonus programs

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Recalibrate resources used for job posting and position listing
- Revise or implement new Performance Management System for Union employees
- Succession Development program will extend training to programs, talent assessments, executive coaching and new manager training

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- No direct impact

DEPARTMENT: Human Resources

FY 2020 AND FY 2021 TALENT DEVELOPMENT PLAN

TALENT DEVELOPMENT OVERVIEW

At DC Water, our talent is our people, Team Blue. Talent Development consists of training and development strategies, solutions 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!

The vision of DC Water states that “we will be known for superior service, ingenuity and stewardship to advance the health and well-being of our diverse workforce and communities”. The Talent Development Team supports this vision by leading “The Employee Experience” strategic program. Enhancing our Employee Experience depends on the relationship between our management team and the employees they lead. In order to achieve this, we are connecting the strategies of leadership and employee development with tools and activities that build and support a culture of coaching based performance management. 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. We aim to provide our leaders with the tools that they need to achieve the following goals:

- Improved individual performance through coaching
- Increased trust and accountability by creating new possibilities for team members
- Accountability for self and employees by removing obstacles in the way of success
- Leading the ongoing development of the employees under their supervision

At DC Water, our management team leads by managing performance. On-going coaching based performance management 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

Learning Events – conferences and retreats are educational experiences that require individuals to pull back and build rapport with fellow co-workers. These events boost employee morale and help to increase productivity

DEPARTMENT: Human Resources

FY 2020 AND FY 2021 TALENT DEVELOPMENT PLAN

External Training – classes and programs developed by external vendors that support individual employee development needs and requirements. 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. The content for this site is developed in-house and by external vendors

Engagement Activities- events held internally and externally that allow DC Water employees the opportunity to get to know each other through collaboration and fun

FY 2019 ACCOMPLISHMENTS

Our organizational structure allows us to have a comprehensive approach to managing the Authority’s talent. We continued with **Leading Blue** Cohort II participants for our second pilot in 2019. The feedback thus far has been very positive. Building off the success of the Leading Blue Program, People and Talent launched the mandatory Line of Sight program for people and program managers in 2019, and over 170 participants have completed the program to date. The streamlined New Hire Orientation program is providing employees with the skills needed to add work value immediately

The Authority continued to leverage colleges and universities relationships through the Tuition Assistance Program. We started a year long journey creating our college vendor Partner Program. The goal is to reduce tuition costs and establish paths to pay the schools directly. This reduces paperwork and streamlines the payment process for all. This year, our employees continued to pursue critical infrastructure certifications in the areas of: Professional Engineering and Program Management. Lastly, in 2019, a total of 301 employees participated in the Education and Tuition Assistance Reimbursement benefit programs. DC Water provided approximately \$658,688 to assist employees with their continued education programs

The DC Water Summer Internship Program has continued to be enhanced. Pre-screening and interviews are conducted which led to a high number of quality candidates. Approximately 96 interns were hired from hundreds of 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. At the end of the 10-week program, the interns participate in an Expo where each intern presents their key contributions and work progress in a science fair type format. All DC Water employees are invited to attend, with the interns receiving considerable praise. The interns were also treated to a “team building activity” at Terrapin Adventures and participated in the Lunch & Learn program facilitated by the learning & development business unit on topics such as *Networking, Responsible Social Media Use, and Leadership*

DEPARTMENT: Human Resources

FY 2020 AND FY 2021 TALENT DEVELOPMENT PLAN

Web-based (e-learning) training has continued to be a key component for DC Water employees across the authority. Other projects that were developed in 2019 include Food Policy training, DOES Senior Program Worker, Succession Pilot, Compliance Suite, and managed the first retreat for Executive Vice Presidents. At last, employee engagement received a successful response with the support of the first ever DC Water Basketball League. Resulting in an all-time high participation rate of 81% from employees.

FY 2020 AND FY 2021 TRAINING BUDGETS

The approved FY 2021 training budget totals \$1.6 million, which is approximately \$0.4 million higher than the approved FY 2020 budget.

The Talent branch of People & Talent Department is positioned to help the Authority transform and will continue to focus on the need to develop our workforce beyond the initial job qualifications. Considerable attention will continue to be given to Performance Management, Succession Planning, Cohort III, and Employee Engagement in addition to introducing to “Leaders Teaching Leaders”. A new program instituted by the CEO to give supervisors, managers and foreman the opportunity to gain insight and clarify around strategic objectives across the organization.

Additionally, we will complete development of additional critical training paths: Web-based Enterprise Compliance Training and succession planning. The Talent branch will also be engaged in development of training and change management programs for the Enterprise Resource Planning project (financial, procurement and human resources functions).

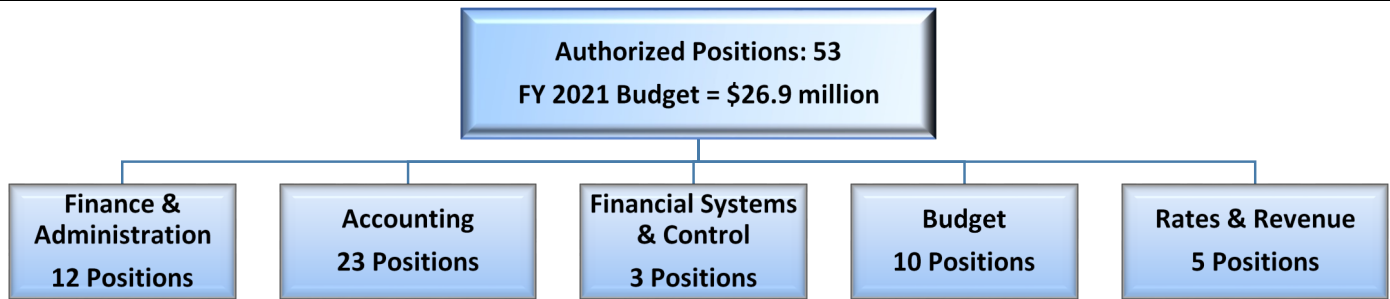
The Talent branch will lead the charge in the development of a high performing organization that achieves better financial and non-financial sustainable results building DC Water’s workforce of the future.

CLUSTER: FINANCE AND PROCUREMENT

DEPARTMENT: Finance

PURPOSE: Responsible for the financial integrity of the Authority’s assets and liabilities, funds acquisition, budget execution, and management and planning of expenditures for all programs and initiatives

MISSION: Stewardship of DC Water’s financial activities to ensure financial integrity and ensure performance that meets the expectations of the Board of Directors, Stakeholders, and the broader financial community



FUNCTIONS

Finance & Administration	Accounting	Financial Systems & Control	Budget	Rates & Revenue
<p>Oversight and management of Finance, Accounting, Budget, Financial Systems & Control, and Rates & Revenue;</p> <p>Manage and oversee Treasury, Debt, insurance and Risk Management functions of the organization</p>	<p>Manage accounting and financial reporting functions of the organization, Comprehensive Annual Financial Report (CAFR), and financial transactions;</p> <p>Establish accounting and reporting policies, maintain financial records and effective internal control structure</p>	<p>Manage and Support organization-wide Financial System and related applications;</p> <p>To ensure accountability and safeguarding of the Authority’s assets</p>	<p>Develop, monitor and report the annual operating and 10 Year Capital Improvements Program (CIP) budgets;</p> <p>Board Committees’ reporting process and Financial relationship with the Washington Aqueduct</p>	<p>Manage short and long-range financial planning, revenue forecasting, and monitoring and establishing rates;</p> <p>Manage cost of service studies for water & sewer, Clean Rivers Impervious Area Charge (CRIAC), fire protection service fee, Potomac Interceptor, operating reserves, renewal & replacement reserves, rate stabilization fund and engineering study</p>
<p>Debt and investment portfolios, operations of cashiering and banking services;</p> <p>Administer all insurance and risk management activities, manage all general liability and tort claims for DC Water’s Operations</p>	<p>Payroll operations, vendor payment operation and asset management finance and accountability;</p> <p>Manage the billing activities of the organization, including grants and county billing operations</p>	<p>Management of Financial System, including upgrades and enhancements;</p> <p>Financial System user support/access control/user training and Business Intelligence and Reporting</p>	<p>Prepare quarterly reports and monthly Financial Reports;</p> <p>Perform ongoing financial management of critical programs and maintain department’s web page</p>	<p>Monitors consumption, revenue, collections, accounts receivable and delinquencies greater than 90 days;</p> <p>Manages independent budget and rate review for public hearing</p>

DEPARTMENT: Finance

BUDGET

The \$6.0 million increase in FY 2021 over the FY 2020 budget is for personnel services cost adjustments and contractual services for the reallocation of credit card fees and the Pay for Success for the Social Impact Bond issued for the Green Infrastructure (GI) project

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	53	53	52	53	1	2%
Headcount: Filled	49	49				
Total Personnel Services	\$7,807	\$8,129	\$9,270	\$9,662	\$392	4%
Supplies & Chemicals	25	16	25	20	-5	-20%
Utilities & Rent	163	68	44	53	9	20%
Contractual Services	7,097	6,641	11,563	17,149	5,586	48%
Small Equipment	1	0	4	4	0	0%
Total Non-Personnel Services	7,286	6,725	11,636	17,225	5,589	48%
Department Total	\$15,093	\$14,853	\$20,906	\$26,888	\$5,982	29%
Capital Equipment	\$3,022	\$610	\$1,010	\$5,610	\$4,600	455%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Manage DC Water's financial operations to ensure revenue projections and O&M expenditures are within budget	101.7% 100%	103.2% 97.8%	99% 95%	99% 95%
Comply with the Board's investment policy and strategy	100%	100%	100%	100%
Benchmarks: Short-Term Funds - ML 3 months US T-Bill	167	226	219	119
Index and Core Funds - ML 1 - 3 year	230	225	242	117
Manage DC Water's financial operations to ensure 140% senior debt service coverage	489%	561%	545%	544%
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	\$166.8 million	\$186.8 million	\$180 million	\$185 million
Issue Comprehensive Annual Financial Report (CAFR) in accordance with Generally Accepted Accounting Principles	February	February	February	February
Pay 97% of all undisputed invoices within 30 days	97%	96%	97%	97%
Publish Annual Budgets within 90 days of Board adoption	< 90 days	< 90 days	90 days	90 days

DEPARTMENT: Finance

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

Finance:

- Analyze and evaluate operating reserve level requirements for liquidity needs
- Implement new Financial Enterprise Resource Planning (ERP) system for Finance to include treasury, Debt, Investments, and Accounts Receivable
- Prepare Request for Proposal (RFP) to implement new Payment Gateway services to replace Merchant Card services to reduce costs to the Authority
- Administer post compliance reporting for all outstanding debt and monitor bond market for Green Bond issuance and performance
- Continue implementation and management process for the upgrade/replacement of the Authority's Safety and Risk Management Information System
- In partnership with Budget and Accounting, review and upgrade the Authority's Rolling Owner-Controlled Insurance Program (ROCIP) Funding methodologies

Rates and Revenue:

- Review of Rate Structure, FY 2021 Proposed Rates and Customer Assistance Programs (CAP)
- FY 2020 Cost of Service Study for Water, Sewer, and Clean Rivers Impervious Area Charge (CRIAC)
- Multi-year Rate Proposal for FY 2021 and FY 2022
- Continue to monitor economic conditions and customer support (care)

Financial Systems & Controls:

- Implement a new Enterprise Resource Planning (ERP) system – Oracle Cloud ERP: Phase 1 - Financials, Phase 2 - Advanced Procurement, Phase 3 - Human Resources, and Phase 4 - Budgeting

Accounting:

- Coordinate and support Internal Auditors
- Provide PBC's to external auditors and clarify any issues/questions on Financials
- Obtain unmodified external audit opinion
- Complete A-133 audit
- Issue quarterly financial reports and Comprehensive Annual Financial Report (CAFR)
- Issue Green Bond Report
- Minimize/eliminate paper check payments to vendors
- Document As-Is processes for ERP
- Participate in development of To-Be processes for ERP
- Participate in ERP Sprints and validation testing

DEPARTMENT: Finance

Budget:

- 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
 - Complete documentation of As-is business processes for budgeting and reporting
 - Continue participation in the implementation of new ERP system (Phase 4 – Budgeting)
- Advance and implement enhancements to the position request workflow
- Implement streamlined and continue improvements to the budget planning process

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue improvements to the budget development and reporting process
- Explore alternative revenue generating initiatives
- New bond issuance
- Continue with FY 2020 major activities
- Continue implementation of the new ERP system

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

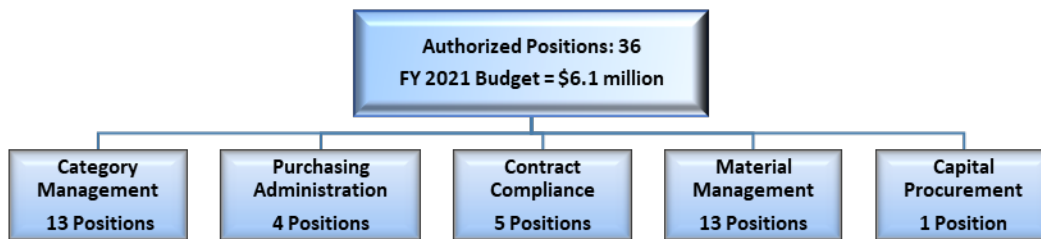
- Consultant support, training and related subscription costs for new ERP system

CLUSTER: FINANCE AND PROCUREMENT

DEPARTMENT: Procurement and Compliance

PURPOSE: The department is responsible for the acquisition of goods and services in support of the Authority’s business activities in accordance with approved procurement policies and guidelines

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



FUNCTIONS

Category Management	Purchasing Administration	Contract Compliance	Material Management	Capital Procurement
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	Provide direction and guidance on inventory policies and procedures, disposal of excess and obsolete inventory	Manage all DC Water’s procurement process for capital projects
Develop category and sourcing strategies	Provide procurement system administrative support	Manage the DC WaterWorks program, purchase and 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	Manage all IT system projects that impacts Procurement System	Maintain the department’s web page	Manage the warehouse and associated functions	

DEPARTMENT: Procurement and Compliance

BUDGET

The \$0.3 million increase in FY 2021 compared to the FY 2020 budget is for personnel services cost adjustments for one additional headcount

Description	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	36	35	35	36	1	3%
Headcount: Filled	27	32	36	36		
Total Personnel Services	\$4,505	\$4,362	\$4,910	\$5,126	\$216	4%
Supplies & Chemicals	24	38	32	30	(2)	-6%
Utilities & Rent	55	56	32	53	21	66%
Contractual Services	983	658	832	866	34	4%
Small Equipment	0	0	0	3	3	N/A
Total Non-Personnel Services	1,062	752	898	953	55	6%
Department Total	\$5,566	\$5,114	\$5,808	\$6,079	\$271	5%
Capital Equipment						

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
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%

DEPARTMENT: Procurement and Compliance

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Implement the new Enterprise Resource Planning (ERP) system - Procurement module
- Generate, capture, and report cost savings through category management and strategic sourcing projects
- Continue to improve process and eSourcing tool to reach the best practice goal
- Optimize organization structure to improve resource utilization and best match skill sets
- Continue stabilization/enhancement of materials management system and process
- Continuously improve category strategies to improve vendor base while lowering cost and supply risk
- Provide continuous training of procurement staff and Contracting Officer's Technical Representative (COTRs) to improve vendor relationships and performance

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Stabilize new ERP system and integrate with business processes and procurement policies
- Establish capital procurement team and manage all procurement process for capital projects
- Generate, capture, and report cost savings through category management and strategic sourcing projects
- Continuously improve category strategies to improve vendor base while lowering cost and supply risk
- Continuously improve local and minority business outreach and spending
- Provide continuous training of procurement staff and Contracting Officer's Technical Representative (COTRs) to improve vendor relationships and performance

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- Consultant support, training and related subscription costs for new ERP system

CLUSTER: FINANCE AND PROCUREMENT

FUND: Non-Ratepayer Revenue Fund

PURPOSE: The Non-Ratepayer Revenue Fund (NRRF) is being established as part of the Authority's total operating budget starting with the proposed FY 2021 budget cycle. This fund would be used to budget for additional operating funds in the Authority's appropriation that are not specifically budgeted or allocated to individual departments. This will provide the flexibility for departments to undertake projects using new revenues to be generated from non-ratepayer sources. This includes rental of DC Water facilities, fleet equipment maintenance for non-DC Water agencies, etc.

MISSION: NRRF is budgeted under contractual services and captured in a designated cost center under the Finance and Procurement Cluster. Funding from this account would be reprogrammed to offset costs in other user departments once the specific requirements are met. The associated revenues must be realistic and obtainable from new non-ratepayer sources and are not factored into the development of the retail water and sewer rates

BUDGET

This new fund was established in FY 2021 for \$0.5 million to provide support for departments based on costs incurred in revenue generation from non-ratepayer sources

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized				\$0	-	N/A
Headcount: Filled						
Total Personnel Services					-	N/A
Supplies & Chemicals					-	N/A
Utilities & Rent					-	N/A
Contractual Services				500	500	N/A
Small Equipment					-	N/A
Total Non-Personnel Services				500	500	N/A
Department Total				\$500	500	N/A
Capital Equipment					-	N/A

CLUSTER: ADMINISTRATIVE SERVICES

DEPARTMENT: Administration Office

PURPOSE: To oversee and direct the administrative functions that support the achievement of DC Water’s goals

MISSION: Ensure continuity of operations and a safe, secure and healthy working environment by providing a foundation of resources and support to DC Water employees through the management of facility, security, safety, emergency management, and fleet services

Authorized Positions: 3
FY 2021 Budget = \$0.6 million

FUNCTIONS

Facilities Management	Security	Occupational Safety & Health	Emergency Management	Fleet Management
Develop and direct the strategic objectives of the Authority’s administrative departments				
Oversee and direct the administrative functions that support the achievement of the Enterprise’s performance goals				

DEPARTMENT: Administration Office

BUDGET

The Approved FY 2021 budget is relatively flat compared to the FY 2020 budget

Description	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
	Actuals	Actual	Approved	Approved	Variance	%
Headcount: Authorized	3	3	3	3	0	0%
Headcount: Filled	3	3				
Total Personnel Services	\$677	\$496	\$549	\$573	\$24	4%
Supplies & Chemicals	4	7	1	1	0	0%
Utilities & Rent	2	8	4	4	(0)	-6%
Contractual Services	23	56	32	57	25	77%
Small Equipment	0	4	0	0	0	0
Total Non-Personnel Services	29	75	37	61	24	66%
Department Total	\$706	\$570	\$586	\$634	\$48	8%
Capital Equipment						

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Projection	FY 2020 Targets	FY 2020 Targets
Strategic analysis and planning meetings with Directors:				
Facilities	4	4	12	12
Security	4	4	12	12
Fleet Management	4	4	12	12
Occupational Safety & Health	4	4	12	12
Emergency Management	4	4	12	12

DEPARTMENT: Administration Office

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Optimize the operations of safety, security and emergency management and increase participation from all DC Water employees in training opportunities
- Analyze business processes and implement activities to improve efficiency and increase resiliency, as we move towards a shared-services model to better track costs by department/program
- Development and implementation of an Environmental, Health and Safety (EHS) program at DC Water

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Creation of a Business Operations function, to further streamline and coordinate all Administration cluster activities, and better socialize them throughout DC Water
- Finalize a Land Use Master Plan, to provide guidance and structure to standardizing and improving facilities based on the implementation of the EHS program and other cluster initiatives related to continuity of operations and resiliency

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

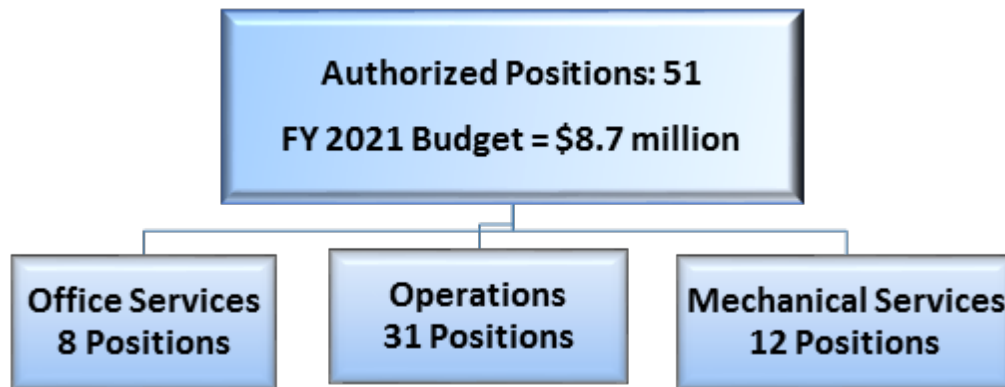
- Analyze business processes and implement activities to improve efficiency, including centrally-managed budget items and fleet optimization

CLUSTER: ADMINISTRATIVE SERVICES

DEPARTMENT: Facilities Management

PURPOSE: Administers programs for construction, operation, maintenance and continuous improvement of the Authority’s physical infrastructure and building services

MISSION: To support the operation of the Authority through routine maintenance, custodial services, repair and improvement of its facilities, buildings, grounds and roadways for DC Water’s operations



FUNCTIONS

Office Services	Operations	Mechanical Services
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	Plumbing

DEPARTMENT: Facilities Management

BUDGET

The \$0.3 million decrease in FY 2021 compared to the FY 2020 budget is primarily in mechanical and nursery supplies

Description	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	56	56	52	51	(1)	-2%
Headcount: Filled	48	46				
Total Personnel Services	\$5,203	\$2,205	\$5,859	\$5,864	\$5	0%
Supplies & Chemicals	462	38	428	118	(310)	-72%
Utilities & Rent	110	353	250	171	(79)	-32%
Contractual Services	1825	153	2327	2508	181	8%
Small Equipment	81	11	66	0	(66)	-100%
Total Non-Personnel Services	2478	555	3071	2797	(274)	-9%
Department Total	\$7,680	\$2,760	\$8,930	\$8,661	(\$269)	-3%
Capital Equipment	\$1,314	\$1,458	\$1,805	\$1,845	\$40	2%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Annual Work Orders Closed	6889	6911	8500	8500

DEPARTMENT: Facilities Management

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- In coordination with Information Technology department, kick off utilization of the tablet based, automated service request to work order system
- Support the design and upgrade of Central Office Facilities (COF) Building
- Support the design and upgrade of Bryant Street facilities
- Manage the design for the upgrades to Supply Building 1 at Blue Plains to create future home of Facilities shops
- Prioritize, procure, execute and complete contracts for the replacement of the roofs and HVAC systems upgrades and repairs that can be achieved within the FY 2020
- Begin alignment of DC Water Facilities Department with best practices in the facilities industry
- Identify and provide training related to best practices in the facilities industry
- Continue to implement new industry innovations

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue the reorganization of the Facilities Department
- Continue construction of the Upgrades to Supply Building 1
- Support the upgrade/construction work of Central Office Facilities (COF) Building
- Support the upgrade/construction work of Bryant Street facilities
- Relocate personnel (DETS, Safety) into their permanent work spaces within the upgraded COF building
- Continue HVAC upgrades to meet R-22 refrigerant mandate
- Miscellaneous Facilities upgrades at Blue Plains

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- The construction of the new Fleet and Sewer Services Buildings may impact the operating budget primarily due to manhours needed for training in the systems of these new facilities
- The new headquarters and TDPS buildings extended services after construction will expire in FY 2020 affecting the operational budget for HVAC and Plumbing maintenance, elevator maintenance and grounds keeping maintenance

CLUSTER: ADMINISTRATIVE SERVICES

DEPARTMENT: Department of Security

PURPOSE: To deliver best-in-practice security services that safeguard and protect DC Water's mission-critical resources and employees in meeting the enterprise commitment to our communities and the environment

MISSION: To support and maintain a safe and welcoming workplace that is customer focused and intended to enhance the well-being of staff and visitors



FUNCTIONS

Security Operations	Security Asset Protection
Locksmith, Key Control	Electronic security asset testing and maintenance
Guard force and traffic management Identification and Badge Control	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

DEPARTMENT: Department of Security

BUDGET

The \$0.9 million increase in FY 2021 compared to the FY 2020 budget is primarily in professional services contract for guard services

Description	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	9	8	8	8	-	0%
Headcount: Filled	8	7				
Total Personnel Services	\$1,022	\$1,119	\$1,133	\$1,059	(\$74)	-7%
Supplies & Chemicals	51	66	59	54	(5)	-9%
Utilities & Rent	279	304	297	325	28	9%
Contractual Services	5,783	6,268	5,468	6,410	942	17%
Small Equipment	56	50	50	40	(10)	-20%
Total Non-Personnel Services	6,169	6,688	5,874	6,829	955	16%
Department Total	\$7,191	\$7,807	\$7,007	\$7,888	\$881	13%
Capital Equipment	\$500	\$392	\$515	\$850	\$335	65%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Completion times to initial security investigation report. Target = 21 days	7 days	21 days	3 days	3 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%	5%	5%	6%
Turnover rate of Guard Force Officers = NTE 25% per month	<5%	<10%	<5%	<4%
Camera Operational Uptime: Target = 95%	98%	98%	99%	95%
Smart Card Readers Operational Uptime: Target = 95%	95%	98%	99%	95%

DEPARTMENT: Department of Security

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Initiate recommendations of DC Water Risk Deduction Recommendation Report—Comprehensive All Hazards Risk Assessment - Office of Emergency Management (OEM)
- Develop annual security training, based on assessment of conditions and current events
- Integrate electronic traffic control devices at all major access control traffic points throughout the Authority
- Upgrade Fire Protection systems at Blue Plains

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- DSEC Risk Alert Levels and Response Options Matrix: Collaborate with vendor to conduct exercises to improve security functions during various heightened levels of threats. Exercises shall be exclusively based on developed action items for each threat level
- Facility Entrance Signage (for vehicular traffic): In an effort to reduce DC Water property damage (gate arms) by vehicles entering DC Water facilities, to evaluate existing signage pursuant to DC Department of Transportation Signage Regulations, to determine signage enhancements

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- Continued improvement of security systems will reduce overall maintenance, improve 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 Fleet Facility is expected to increase security operations costs in future years

CLUSTER: ADMINISTRATIVE SERVICES

DEPARTMENT: Occupational Safety and Health

PURPOSE: Oversight of the Authority’s Comprehensive Health and Safety Program, to accomplish a safe and healthy work environment, as well as, compliance with environmental health and safety regulations

MISSION: To support DC Water’s Blueprint /Strategic Plan by effectively managing Department resources to accomplish a healthy work environment for all DC Water employees



FUNCTIONS

Operations Safety	Construction Safety	Data and Analysis
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, and accident and incident investigations	Oversight of the implementation of comprehensive construction safety program	Develop and analyze safety metrics
Support DC Water’s Emergency Response activities and serve as the Safety Officer when the Incident Management Team (IMT) is activated	Coordinate with and support the Office of Risk Management, Emergency Management, Emergency Preparedness of Contractors, and the Department of Engineering and Technical Services, including the Rolling Owner Controlled Insurance Program (ROCIP), Safety Program, and Non-ROCIP contracts	Generate and provide required safety reports
Oversight of hazardous waste program and storage tank compliance. Identify, develop, schedule and deliver required safety training	Implement initiatives to prevent and reduce accidents, occupational illnesses, and exposure to health and physical hazards	Administer and maintain safety database

DEPARTMENT: Occupational Safety and Health

BUDGET

The \$0.2 million increase in the Approved FY 2021 budget is mainly for personnel services adjustments

Description	FY 2018	FY 2019	FY 2020	FY 2021	Change from	
	Actuals	Actuals	Approved	Approved	Variance	%
Headcount: Authorized	11	11	11	11	-	0%
Headcount: Filled	11	11				
Total Personnel Services	\$1,581	\$1,503	\$1,721	\$1,861	\$140	8%
Supplies & Chemicals	22	9	23	20	(3)	-13%
Utilities & Rent	30	27	31	26	(5)	-16%
Contractual Services	306	274	406	428	22	5%
Small Equipment	5	4	0	0	-	N/A
Total Non-Personnel Services	363	314	460	474	14	3%
Department Total	\$1,944	\$1,817	\$2,181	\$2,335	\$154	7%
Capital Equipment						

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
OSHA recordable accidents per hours worked (Reduce 10%)	4.6	3.7	3.5	3.5
Lost time work cases due to non-fatal accidents per hours worked	3.8	3	2.8	2.8
No. of time work stopped due to unplanned unsafe conditions	2	1	1	1
No. of formally raised safety related employee concerns reported	159	57	170	170
No. of Vehicle Accidents	47	38	38	35

DEPARTMENT: Occupational Safety and Health

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue to implement safety goals and initiatives in association with the Strategic Plan
- Continue implementation and management process for the upgrade/replacement of the Authority's Safety and Risk Management Information System
- Continue to provide support to the Office of Risk Management for the Rolling Owner Controlled Insurance Program (ROCIP), and People & Talent for the Worker's Compensation
- Begin implementation of damage prevention initiative to reduce the occurrence of utility strikes by both in-house and contractor crews
- Continue to review and update safety and health policies
- Focus on the full implementation of the safety training program

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue to implement safety goals and initiatives in association with the Strategic Plan
- Continue to provide support for ROCIP and Worker's Compensation programs
- Implement the approved safety and health policies
- Focus on adopting an implementing a Safety Management System (ISO 45001)
- Exploring the usage of virtual reality technology for training purposes

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

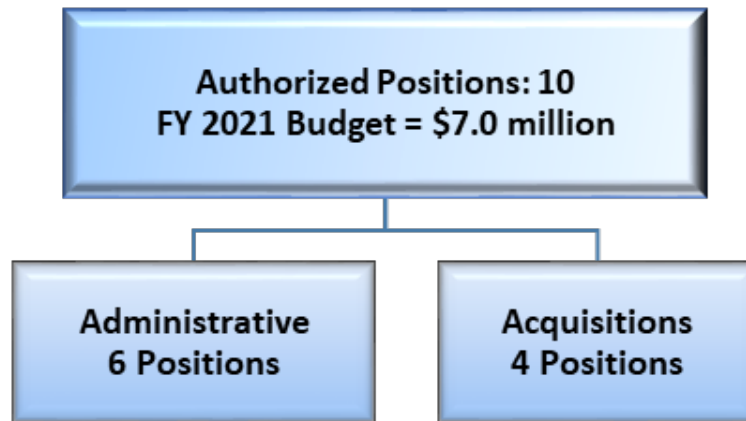
- No major items identified

CLUSTER: ADMINISTRATIVE SERVICES

DEPARTMENT: Fleet Management

PURPOSE: Ensure DC Water’s fleet and equipment are safe and functioning to meet the operational needs of the Authority

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



FUNCTIONS

Administrative	Acquisitions
Preventive and repair maintenance	Acquisition/Disposal of vehicles/equipment
Performance Measurements - percent of uptime/availability, and Commercial Driver’s License (CDL) Safe Drivers Program	Integration and retrofitting of vehicles Integration mobile technology support
Manage and support the Fleet Wave System, and monitor fuel usage Manage fleet maintenance contractor and vendors	Inventory control of automotive parts
Management of vehicles, equipment, parts and DC Water loaner pool program	

DEPARTMENT: Fleet Management

BUDGET

The \$0.8 million increase in FY 2021 compared to FY 2020 is mainly for personnel service cost adjustments and contractual services costs for automotive maintenance and repairs on DC Water's aging vehicle fleet

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Proposed	Variance	%
Headcount: Authorized	8	8	10	10	-	0%
Headcount: Filled	7	6				
Total Personnel Services	\$935	\$952	\$1,220	\$1,444	\$224	18%
Supplies & Chemicals	10	9	18	19	1	4%
Utilities & Rent	814	795	840	893	53	6%
Contractual Services	4,449	4,933	4,006	4,564	558	14%
Small Equipment	33	28	45	45	-	0%
Total Non-Personnel Services	5,306	5,765	4,909	5,521	612	12%
Department Total	\$6,241	\$6,717	\$6,129	\$6,965	\$836	14%
Capital Equipment	\$656	\$4,421	\$3,460	\$6,000	\$2,540	73%

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Preventative Maintenance Completed on Schedule	96%	91%	96%	96%
Vehicles available for use	96%	89%	96%	96%
DC Water priority vehicle in-service	98%	86%	98%	98%

DEPARTMENT: Fleet Management

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Continue planning for relocation and transition to the new Fleet Facility
- Assess requirements for insourcing of automotive maintenance services
- 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 and rideshare program
- Reassess the Priority Equipment and major change outs according to Departmental Programs
- Reassess all major equipment repair contracts
- Continue utilization of grants and enterprise collaborations for the purchase of Alternative Fueled Vehicles (AFV's), Hybrid Plug-in Electric
- Continue the "Right Sizing - Effective Efficiency Use" Program as well as reduce the carbon footprint and the re-issuance of underutilized units
- Continue purchasing of Customized Smart Infrastructure and Advanced Technology, Clean Idle, certified clean diesel, and electric vehicles, where possible to reduce carbon emission
- Continue increased usage of environmentally friendly soy and bio-based products and cleaners, where applicable

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Begin to transition Fleet Maintenance In-House
- Continue utilization of grants and enterprise collaborations for the purchase of Alternative Fueled Vehicles (AFV's), Hybrid Plug-in Electric
- Continue the "Right Sizing - Effective Efficiency Use" Program as well as reduce the carbon footprint and the re-issuance of underutilized units
- Continue purchasing of Customized Smart Infrastructure and Advanced Technology, Clean Idle, certified clean diesel, and electric vehicles, where possible to reduce carbon emission
- Continue increased usage of environmentally friendly soy and bio-based products and cleaners, where applicable

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- Mobile maintenance service repairs
- Acquisition and Disposal of units and equipment

CLUSTER: ADMINISTRATIVE SERVICES

DEPARTMENT: Office of Emergency Management

PURPOSE: To provide planning and operational support to the entire Authority during emergencies and to ensure DC Water complies with the American Water Infrastructure Act

MISSION: To facilitate the development and sustainment of a disaster resilient utility

**Authorized Positions: 6
FY 2021 Budget = \$1.5 million**

FUNCTIONS

Emergency Management Program	Training
Manage, develop and administer Emergency Management throughout the Authority	Preparedness training and educational requirements for DC Water staff and contractors
Perform vulnerability assessment and integration into CIP	Provide continual support to ensure all employees and contractors are prepared, trained, and equipped to respond to man-made and natural emergencies
Critical infrastructure protection, key resource management for emergency (man-made and natural)	Responsible for critical infrastructure protection, key resource management for emergency (man-made and natural) preparedness training and educational requirements for DC Water staff and Contractors
Management of DC Water’s Internal Emergency Alert system and provide improvement planning measures	

DEPARTMENT: Office of Emergency Management

BUDGET

During FY 2019, the Office of Emergency Management (OEM) was established as a stand alone department from the Pumping department. The overall FY 2021 budget is relatively flat compared to the FY 2020 budget

\$000's	FY 2018	FY 2019	FY 2020	FY 2021	Change from FY 2020	
Description	Actuals	Actuals	Approved	Proposed	Variance	%
Headcount: Authorized		6	6	6	-	0%
Headcount: Filled		4				
Total Personnel Services		\$500	\$982	\$949	-\$33	-3%
Supplies & Chemicals		6	6	15	9	150%
Utilities & Rent			13	21	8	58%
Contractual Services		450	375	493	118	31%
Small Equipment		4	30	20	-10	-33%
Total Non-Personnel Services		459	425	549	125	29%
Department Total		\$959	\$1,408	\$1,498	\$90	6%
Capital Equipment				\$50	\$50	N/A

TARGETED PERFORMANCE MEASURES	FY 2018 Results	FY 2019 Results	FY 2020 Targets	FY 2021 Targets
Maintain compliance with American's Water Infrastructure Act every five years 100%	NA	NA	100%	NA
Maintain Emergency Management Accreditation with yearly report on measures for accreditation compliance.	NA	100%	100%	100%

DEPARTMENT: Office of Emergency Management

FY 2020 MAJOR PLANNED ACTIVITIES AND CHANGES

- Support DC Water’s overall emergency response capabilities through the development of virtual reality training
- Facilitate the requirements and compliance efforts of America’s Water Infrastructure Act for the Authority
- Continue to provide robust and comprehensive emergency management training and exercise programs
- Explore an Incident Management Team (IMT) activation and documentation solution for quicker emergency documentation and plan references
- Develop a fire inspection and investigation division within fire and life safety program
- Establish mobile incident command post capabilities and coordinated situational awareness information sharing measures
- Expand on regional water emergency response and communication capabilities
- Establish Emergency Management Accreditation Program (EMAP) accreditation into department’s strategies, goals, and procedures
- Continue to source and implement Federal Emergency Management Association (FEMA) Hazard Mitigation Grants

FY 2021 MAJOR PLANNED ACTIVITIES AND CHANGES

- Fully implement a sustainable Program Manager, Hazard Mitigation Grants position for grant funding identification and facilitation
- Seek reaccreditation in ISO 22301 Business Continuity Management System. Current accreditation expires in 2021
- Establish a suite of virtual emergency management training courses specific to DC Water to assist staff in obtaining a knowledge base at their own pace and to assist in establishing incident management competencies
- Compile and develop confidential Critical Infrastructure Protection guidance manual for the Authority
- Develop a complete inventory and maintenance system for emergency response management
- Implement an IMT activation and documentation software solution for quicker emergency documentation and plan references
- Provide updates to all nine emergency response plans

IMPACT OF CAPITAL PROJECTS ON OPERATING BUDGET

- No direct impact



Approved FY 2021 Budgets

Section VIII: GLOSSARY AND ACRONYMS



Lotus and Water Lilly Festival

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.

ANAMMOX: An abbreviation for ANaerobic AMMonium OXidation, is a globally important microbial process of the nitrogen cycle.

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".

AS-BUILT: A revised set of drawings submitted by a contractor upon completion of a construction project. As-built drawings show the dimensions, geometry, and location of all components of the project.

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 and 11 alternate 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.

CA PPM: Represents a single platform that enables management of the entire innovation lifecycle and make more informed strategic investments.

CLASS A BIOSOLIDS: Class A Biosolids is a designation for dewatered and heated sewage sludge that meets U.S. EPA guidelines for land application with no restrictions. Thus, class A biosolids can be legally used as fertilizer on farms, vegetable gardens, and can be sold to home gardeners as compost or fertilizer.

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.

CCF (Ccf): Hundred cubic feet or 748 gallons.

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 (CRIAC): 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.

CRIAC NON-PROFITS RELIEF PROGRAM: District funded program to provide CRIAC credits to non-profit organizations as determined by the District Department of the Environment (DDOE).

CUSTOMER ASSISTANCE PROGRAM (CAP): Existing program that uses LIHEAP (Low Income Home Energy Assistance Program) criteria to provide DC Water-funded discounts to low-income residential customers with incomes up to 60 percent of the State Median Income (SMI from Health and Human Services (HHS)).

CUSTOMER ASSISTANCE PROGRAM II (CAP2): CDC Water’s proposed expanded program for low-income residential customers who do not qualify for CAP with household income up to 80% Area Median Income (AMI).

CUSTOMER ASSISTANCE PROGRAM III (CAP3): District-funded program to provide benefits to DC Water customers with household income greater than 80% and up to 100% Area Median Income (AMI) who do not qualify for CAP or CAP2.

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: This 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.

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): Also known as the Centrate Treatment Facility and is a part of the Total Nitrogen Removal Wet Weather plan, provides a new treatment system that will remove nitrogen from the recycle stream of solids processing at Blue Plains. The facility 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 dewater 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, also known as Biosolids.

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.

THE BLUEPRINT: DC Water's Strategic Plan.

TUNNEL DEWATERING PUMP STATION (TDPS)/ENHANCED CLARIFICATION FACILITY (ECF): The TDPS facility starts where the DC Clean Rivers Project tunnels end at Blue Plains. The TDPS will pump millions of gallons of combined sewer overflows and the ECF will treat the captured wet-weather flows, previously flowed into the District's waterways during heavy rain storms.

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

3PP: Third Party Portal	CCTV: Closed Circuit TV
ADA: Americans with Disability Act	CFCI: Cash Financed Capital Improvements
AED: Automated External Defibrillator	CHP: Combined Heat and Power
AFV: Alternative Fueled Vehicle	CIP: Capital Improvement Program
AMI: Advanced Metering Infrastructure	CIPP: Critical Infrastructure Protection Plan
AMR: Automatic Meter Reading	CIS: Customer Information System
AMSA: Association of Metropolitan Sewerage Agencies	CMF: Central Maintenance Facility
ANC: Advisory Neighborhood Commission	CMOM: Capacity Management Operation and Maintenance
ART: Advanced Research Testing	COBRA: The Consolidated Omnibus Budget Reconciliation Act Of 1985
ASA: American Shotcrete Association	COF: Central Operations Facility
AWWTP: Advanced Waste Water Treatment Plant	COG: Metropolitan Washington Council of Governments
BABs: Build America Bonds	COOP: Continuity of Operations Plan
BOD: Biochemical Oxygen Demand	COTR: Contracting Officer's Technical Representative
BP: Blue Plains	CRIAC: Clean Rivers Impervious Area Change
CAFR: Comprehensive Annual Financial Report	CSO LTCP: Combined Sewer Overflow Long-Term Control Plan
CAP: Customer Assisted Program	CSO: Combined Sewer Overflows
CC&O: Customer Care & Operations	CSP: Comprehensive Safety Program

ACRONYMS

CSRS: Civil Service Retirement System	EBU: Equivalent Billing Unit
CSS LTCP: Combined Sewer System Long-Term Control Plan	ECF: Enhanced Clarification Facility
CWA: Clean Water Act	EDMC: Engineering Document Management and Control
CWSFR: Clean Water State Revolving Fund	EEOC: Equal Employment Opportunity Commission
DCFEMS: DC Fire and Emergency Medical Services	EIS: Environmental Impact Statement
DCRA: District of Columbia Department of Consumer and Regulatory Affairs	EMA: Emergency Management Agency
DDOT: District of Columbia Department of Transportation	EMAP: Emergency Management Accreditation Program
DEMON: Deammonification Process	EMCP: Extendable Municipal Commercial Paper Program
DETS: Department of Engineering and Technical Services	ENRF: Enhanced Nitrogen Removal Facilities
DMRQA: Discharge Monitoring Report Quality Assurance	EOC: Emergency Operations Center
DOEE: District of Columbia Department of Energy & Environment	EPA: Environmental Protection Agency
DRBCP: Disaster Recovery and Business Continuity Plan	ERDMS: Enterprise Records and Document Management System
DSLFL: Dewatered Sludge Loading Facility	ERP: Enterprise Resource Planning System
DSS: Department of Sewer Services	ERU: Equivalent Residential Unit
DWE: Department of Wastewater Engineer	ESC: Executive Steering Committee
DWS: Department of Water Services	ESF: Emergency Support Function
EA: Environmental Assessment	ETL: Extract, Tool, Load

ACRONYMS

FCPA: Foreign Corruption Practices Act	HVAC: Heating Ventilation and Air Conditioning
FDF: Final Dewatering Facility	I&C: Instrumentation and Controls
FEMA: Federal Emergency Management Agency	I&I: Infiltration and Inflow
FOC: Fiber Optic Cable	IAC: Impervious Area Charge
FOG: Fats, Oil, and Grease	IFB: Invitation for Bid
FONSI: Finding of No Significant Impact	IIP: Internal Improvement Plan
FTE: Full Time Employee	IMA: Inter-Municipal Agreement
FTF: Filtrate Treatment Facility	IOT: Internet of Things
GFOA: Government Finance Officers Association	IR&R: Infrastructure Repair & Replacement
GHG: Green House Gas	IT: Information Technology
GICD: Green Infrastructure Consent Decree	ITA: International Tunnelling Association
GIS: Geographical Information System	IVR: Interactive Voice Response
GMP: Guaranteed Maximum Price	JBAB: Joint Base Anacostia-Bolling
HPEV: Hybrid Plug-In Vehicle	JUDD: Joint Utility Discount Day
HPRP: High Priority Rehabilitation Program	KPI: Key Performance Indicators
HQO: Head Quarters Office	LDWMR: Large Diameter Water Main Rehabilitation
HUNA: High Usage Notification Application	LID: Low Impact Development

ACRONYMS

LOTO: Log Out Tag-Out

NEBT: North East Boundary Tunnel

LSC: Local Steering Committee

NEPA: National Environmental Policy Act

LSDBE: Local Small Disadvantaged Business Enterprise

NFPA: National Fire Protection Agency

LSR: Lead Service Replacement

NHPA: National Historic Preservation Act

LTCP: Long Term Control Plan

NMC: Nine Minimum Controls

MBE: Minority Business Enterprise

NPDES: National Pollutant Discharge Elimination System

MGD: Million Gallons Per Day

NPFMP: Non-Process Facilities Master Plan

MJUF: Multi-Jurisdictional Use Facility

NWBSO: Northwest Boundary Sewer Overflow

MOCRS: Mayor's Office of Community Relations and Services

O&M: Operations & Maintenance

MOU: Memorandum of Understanding

OCIP: Owner Controlled Insurance Program

MPT: Main Process Train

OEM: Original Equipment Manufacturer

MS4: Municipal Separate Storm Sewer System

OMAC: Office of Marketing and Communications

MTA: Messtechnik Associates

OMB: Office of Management and Budget

MTBF: Meantime Between Failures

OSHA: Occupational Safety and Health Administration

MTTR: Meantime to Repair

PBS: Public Broadcasting Service

MW: Mega Watt

PCA: Pipe Condition Assessment

NEB: North East Boundary

PCCS: Process Computer Control System

ACRONYMS

PCS: Process Control System	RCM: Reliability Centered Maintenance
PDMS: Payables Document Management Systems	RFE: Reclaimed Final Effluent
PEV: Plug-In Electric Vehicle	RFP: Request for Proposal
PILOT: Payment In Lieu of Taxes	RFQ: Request for Quotation
PLC: Program Logic Control	RSF: Rate Stabilization Fund
PM: Preventive Maintenance	RWWP: Raw Wastewater Pump Station
PPA: Power Purchase Agreement	SAF: System Availability Fee
PPM: Parts Per Million	SCADA: Supervisory Control and Data Acquisition
PRT: Potomac River Tunnel	SDWA: Safe Drinking Water Act
PRV: Pressure Release Valve	SDWMR: Small Diameter Water Main Replacement
PS: Pumping Station	SEP: Supplemental Environmental Project
PSA: Public Service Announcement	SFR: Single Family Residence
PSIM: Physical Security Information Management	SOP: Standard Operating Procedure
PSSDB: Primary Scum Screening Degrating Building	SOX: Sarbanes Oxley Act
PSW: Process Service Water System	SPLASH: Serving People by Lending a Supporting Hand
PZIP: Pressure Zone Increase Project	SSO: Sanitary Sewer Overflow
QMS: Quality Management System	TDPS: Tunnel Dewatering Pump Station

ACRONYMS

TEAMS: Total Enterprise Asset Management System

TMDL: Total Maximum Daily Pollutant Loads

TN: Total Nitrogen

UAMI: Upper Anacostia Main Interceptor

ULSD: Ultra-Low Sulfur Diesel

USACE: U.S. Army Corps of Engineers

VAV: Variable Air Volume

VEP: Valve Exercise Program

VIT: Vehicle Information Transmitter

WAD: Washington Aqueduct

WaSSP: Water and Sewer Sensor Program

WBE: Women Business Enterprise

WSRF: Water System Replacement Fee

WSSC: Washington Suburban Sanitary Commission

WWTP: Wastewater Treatment Plant

Presented and Adopted: March 5, 2020
Subject: Approval of Proposed Fiscal Year 2021 Operating Budget

#20-14
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 on March 5, 2020, 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 2021 Proposed Operating Budget.

WHEREAS, during the Fiscal Year 2021 Budget Workshop on January 2, 2020, the Chief Executive Officer and General Manager, and Chief Financial Officer and Executive Vice President, Finance and Procurement, briefed Board members on the Proposed FY 2021 Operating Budget that totaled \$642,663,000; and

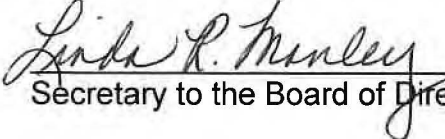
WHEREAS, on January 23, 2020, the Finance and Budget Committee reviewed the budget proposals and discussed in detail, the budget drivers, strategic budget decisions, budget assumptions, risks and customer impact; and

WHEREAS, on February 25, 2020, the Finance and Budget Committee further reviewed the budget proposals and discussed in detail the budget drivers, strategic budget decisions, budget assumptions, risks and customer impact, and recommended that the Board adopt the FY 2021 Operating Budget that totals \$642,663,000, including \$25,000 for representation and \$15,000 for official meetings.

NOW THEREFORE BE IT RESOLVED THAT:

The Board hereby approves and adopts DC Water's Proposed Fiscal Year 2021 Operating Budget totaling \$642,663,000, including \$25,000 for representation and \$15,000 for official meetings, and as further detailed in the Chief Executive Officer and General Manager's Proposed Fiscal Year 2021 Budget presented on January 2, 2020 and accompanying materials.

This resolution is effective immediately.


Secretary to the Board of Directors

Presented and Adopted: March 5, 2020
Subject: Approval of Proposed Fiscal Year 2020 - 2029 Capital Improvement Program

#20-15
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 March 5, 2020 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 2020 - 2029 Capital Improvement Program (10-Year Disbursement Plan and Lifetime Budget).

WHEREAS, the Board’s financial policies require an annually updated 10-Year Financial Plan, which includes a 10-Year Capital Disbursement Plan; and

WHEREAS, during the Fiscal Year (FY) 2021 Budget Workshop on January 2, 2020, the Chief Executive Officer and General Manager, Chief Financial Officer and Executive Vice President, Finance and Procurement, and Senior Vice President, CIP Project Delivery, briefed Board members on the Proposed 10-Year Disbursement Plan totaling \$5,450,013,000; and

WHEREAS, on January 16, 2020, the Environmental Quality and Operations Committee reviewed the budget proposals and discussed in detail the budget scenarios, budget drivers, strategic budget decisions, budget assumptions and risks; and

WHEREAS, on January 23, 2020, the Finance and Budget Committee reviewed the budget proposals and discussed in detail the budget drivers, strategic budget decisions, budget assumptions, risks, and customer impacts; and

WHEREAS, on January 28, 2020, the DC Retail Water and Sewer Rates Committee reviewed the budget proposals and discussed in detail the budget drivers, strategic budget decisions, budget assumptions, risks, and customer impacts; and

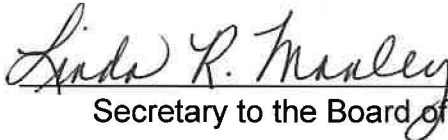
WHEREAS, on February 20, 2020, the Environmental Quality and Operations Committee, reviewed the budget proposals and discussed in detail the budget drivers, budget assumptions, and risks, and recommended that the Board adopt the Proposed 10-Year Disbursement Plan totaling \$5,450,013,000, and related Lifetime Budget, which totals \$12,390,598,000; and

WHEREAS, on February 25, 2020, the Finance & Budget Committee, reviewed the budget proposals and discussed in detail the budget drivers, strategic budget decisions, budget assumptions, and customer impacts, and recommended that the Board adopt the Proposed 10-Year Disbursement Plan totaling \$5,450,013,000 and related Lifetime Budget, which totals \$12,390,598,000.

NOW THEREFORE, BE IT RESOLVED THAT:

The Board hereby approves and adopts DC Water's Fiscal Year 2020 – 2029 Capital Improvement Program with the 10-Year Disbursement Plan totaling \$5,450,013,000, related Lifetime Budget which totals \$12,390,598,000 (Attachment A-1), and as further detailed in the Chief Executive Officer and General Manager's Proposed Fiscal Year 2021 Budget, presented on January 2, 2020 and accompanying materials.

This resolution is effective immediately.


Secretary to the Board of Directors

Capital Improvement Program

10-Year Disbursement Plan - projected annual cash disbursements, \$ in thousands

Attachment A-1

	10-Year Disbursement Plan - projected annual cash disbursements, \$ in thousands										Lifetime	
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Yr Total	Budget
NON PROCESS FACILITIES												
Facility Land Use	42,066	31,849	20,665	6,831	11,058	10,396	3,901	3,553	3,560	3,600	137,479	221,841
Subtotal	42,066	31,849	20,665	6,831	11,058	10,396	3,901	3,553	3,560	3,600	137,479	221,841
WASTEWATER TREATMENT												
Liquid Processing	24,516	42,496	43,069	48,748	44,909	31,792	66,989	68,544	99,413	103,740	574,216	1,266,857
Plantwide	17,387	32,784	42,213	30,735	37,879	23,127	18,231	25,062	20,506	9,902	257,826	525,997
Solids Processing	19,847	27,314	27,424	25,852	22,754	15,761	12,658	6,027	10,476	12,858	180,971	924,507
Enhanced Nitrogen Removal Facilities	15,786	382	672	1,897	1,770	-	-	2,206	1,861	11,665	36,239	980,940
Subtotal	77,536	102,976	113,378	107,232	107,312	70,680	97,878	101,839	132,256	138,165	1,049,252	3,698,301
COMBINED SEWER OVERFLOW												
DC Clean Rivers Program	162,197	147,565	179,833	129,272	67,536	59,909	148,771	103,265	88,890	115,049	1,202,288	2,764,255
Combined Sewer Program Management	1,287	1,792	2,237	2,972	3,028	2,050	2,629	2,515	3,125	2,519	24,154	77,756
Combined Sewer Overflow Program	7,952	7,701	10,579	13,581	13,703	6,518	4,070	5,057	5,847	9,916	84,924	199,729
Subtotal	171,436	157,058	192,649	145,824	84,267	68,476	155,470	110,837	97,863	127,484	1,311,366	3,041,740
STORMWATER												
Storm Local Drainage Program	12	22	688	594	1,267	1,948	1,164	1,792	1,970	1,709	11,166	18,025
Storm On-Going Program	1,011	631	1,109	837	866	526	875	843	1,084	1,287	9,069	11,540
Storm Pumping Facilities	5,310	8,392	4,923	2,259	1,865	1,865	1,698	1,353	3,430	1,755	33,839	61,204
Storm DDOT Projects	-	-	-	-	-	-	-	-	-	-	-	3,237
Stormwater Program Management	410	445	582	367	405	321	464	318	385	306	4,003	12,889
Stormwater Trunk/Force Sewers	126	141	233	113	-	-	-	-	-	-	613	15,510
Subtotal	6,869	9,631	7,535	4,170	5,392	4,660	4,201	4,306	6,869	5,057	58,690	122,404
SANITARY SEWER												
Sanitary Collection System	4,613	8,134	33,564	18,009	24,312	33,040	52,923	68,745	65,771	61,043	370,154	569,040
Sanitary On-Going Projects	12,099	12,327	13,711	13,667	14,185	15,019	15,253	15,111	15,312	14,842	141,529	217,969
Sanitary Pumping Facilities	2,570	5,995	6,924	8,240	5,068	10,468	11,639	11,933	27,732	33,628	124,196	270,778
Sanitary Program Management	4,150	5,464	7,014	5,132	3,913	3,103	3,174	3,900	4,064	4,335	44,250	119,050
Interceptor/Trunk Force Sewers	21,501	32,006	54,327	43,062	44,084	76,710	76,826	77,100	62,993	60,184	548,794	918,096
Subtotal	44,933	63,926	115,541	88,110	91,562	138,341	159,814	176,789	175,873	174,032	1,228,922	2,094,934
WATER												
Water Distribution Systems	33,872	60,464	62,606	65,093	58,654	64,372	65,350	99,075	117,595	121,131	748,211	1,446,953
Water Lead Program	4,711	5,408	5,387	5,456	5,627	5,719	5,496	5,744	5,877	5,692	55,117	243,504
Water On-Going Projects	10,532	11,075	12,297	13,351	15,199	16,789	18,583	20,447	22,981	23,506	164,761	217,972
Water Pumping Facilities	1,525	2,650	12,169	6,284	2,567	4,218	7,446	4,163	2,328	-	43,350	85,344
DDOT Water Projects	1,721	10	8	-	-	-	-	-	-	-	1,739	33,933
Water Storage Facilities	6,216	4,318	10,399	13,963	5,610	4,783	11,334	8,985	694	1,360	67,662	155,164
Water Service Program Management	3,587	4,752	6,012	4,854	5,248	5,884	8,110	8,376	5,441	3,008	55,272	90,944
Subtotal	62,163	88,677	108,878	109,000	92,905	116,319	146,791	154,916	154,697	154,697	1,136,112	2,273,813
CAPITAL PROJECTS	405,004	454,118	558,645	461,168	392,496	394,318	537,584	544,115	571,337	603,035	4,921,821	11,453,035
CAPITAL EQUIPMENT	17,105	27,327	30,485	29,385	30,070	30,070	30,070	30,070	30,070	30,070	284,722	284,722
ONGOING METER REPLACEMENT	5,498	2,930	2,930	2,930	2,930	2,930	2,930	2,930	2,930	2,930	31,868	31,868
ERP PROJECT (Financial & HCM)	9,100	6,950	375	-	-	-	-	-	-	-	16,425	16,425
WASHINGTON AQUEDUCT	31,703	37,207	33,790	32,315	33,000	33,000	33,000	33,000	33,000	33,000	333,015	333,015
ADDITIONAL CAPITAL PROGRAMS	15,515	16,266	18,572	37,841	12,699	33,875	9,508	12,863	24,068	13,971	195,178	195,178
LABOR	47,218	53,473	52,362	70,156	45,699	66,875	42,508	45,863	57,068	46,971	528,193	528,193
TOTAL CAPITAL BUDGETS	452,223	507,590	611,008	531,323	438,195	461,193	580,092	589,978	628,404	650,006	5,450,013	12,390,598

Presented and Adopted: March 5, 2020
SUBJECT: Approval of Fiscal Year 2020 - 2029 Ten-Year Financial Plan

#20-16
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 March 5, 2020, 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 2020 - 2029 Ten Year 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 and management financial targets, the General Manager has prepared a ten-year financial plan in conjunction with the proposed FY 2021 operating and capital budgets; and

WHEREAS, the ten-year financial plan is based on assumptions detailed in the proposed Fiscal Year 2021 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 January 28, 2020, the DC Retail Water and Sewer Rates Committee met and reviewed the proposed ten-year financial plan, and

WHEREAS, on February 25, 2020, the DC Retail Water and Sewer Rates Committee and Finance and Budget Committee, respectively, met and reviewed the proposed ten-year

financial plan, and recommended that the Board adopt the plan as recommended by the General Manager.

NOW THEREFORE BE IT RESOLVED THAT:

1. The Board hereby accepts and approves the proposed Fiscal Year 2020 - 2029 Ten Year Financial Plan that is supported by the attached Schedule A, B and C and the proposed Fiscal Year 2021 Operating and Capital Budgets.

This resolution is effective immediately.


Secretary to the Board of Directors

District of Columbia Water & Sewer Authority

FY 2020 - FY 2029 Financial Plan

(In 000's)

OPERATING	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Retail*	\$ 571,866	\$ 607,107	\$ 630,495	\$ 669,848	\$ 723,657	\$ 762,224	\$ 791,988	\$ 833,503	\$ 879,616	\$ 928,122
Wholesale*	82,539	81,986	84,445	86,978	89,588	92,275	95,044	97,895	100,832	103,867
Other	44,774	42,145	40,658	44,081	46,959	61,637	54,682	54,970	56,935	57,752
RSF	-	2,500	10,500	-	-	-	-	-	-	-
Operating Receipts ⁽¹⁾	\$ 699,179	\$ 733,738	\$ 766,298	\$ 800,907	\$ 860,204	\$ 896,136	\$ 941,724	\$ 986,368	\$ 1,037,383	\$ 1,089,731
Operating Expenses	(347,881)	(365,668)	(376,303)	(387,563)	(398,149)	(411,101)	(423,421)	(436,120)	(449,209)	(462,701)
Debt Service	(205,137)	(222,268)	(240,497)	(257,460)	(271,239)	(286,756)	(299,489)	(316,321)	(332,807)	(348,316)
Cash Financed Capital Improvement	\$ (28,556)	\$ (30,355)	\$ (37,830)	\$ (46,889)	\$ (50,656)	\$ (60,178)	\$ (71,279)	\$ (75,015)	\$ (79,165)	\$ (83,531)
Net Revenues After Debt Service	\$ 117,405	\$ 115,456	\$ 111,668	\$ 109,005	\$ 139,161	\$ 138,101	\$ 147,535	\$ 159,912	\$ 176,202	\$ 185,183
Operating Reserve-Beg Balance	186,764	180,000	185,000	194,000	201,000	205,000	215,000	220,000	230,000	240,000
Other Misc (Disbursements)/Receipts	(6,372)	(3,184)	(5,490)	-	-	-	-	-	-	-
Wholesale/Federal True Up	(4,000)	(4,000)	-	-	-	-	-	-	-	-
Project Billing Refunds	(13,000)	-	-	-	-	-	-	-	-	-
Transfers To RSF	(101,797)	(103,272)	(97,178)	(102,006)	(136,161)	(128,101)	(142,535)	(149,912)	(166,202)	(186,183)
Pay-Go Financing	-	-	-	-	-	-	-	-	-	-
Operating Reserve - Ending Balance	\$ 180,000	\$ 185,000	\$ 194,000	\$ 201,000	\$ 206,000	\$ 215,000	\$ 220,000	\$ 230,000	\$ 240,000	\$ 250,000
Rate Stabilization Fund Balance RSF ⁽²⁾	\$ (74,450)	\$ (71,950)	\$ (61,450)	\$ (61,450)	\$ (61,450)	\$ (61,450)	\$ (61,450)	\$ (61,450)	\$ (61,450)	\$ (61,450)
Senior Debt Service Coverage	459%	502%	533%	513%	516%	547%	532%	518%	560%	769%
Combined Debt Service Coverage	171%	172%	169%	170%	179%	177%	181%	182%	184%	187%
Actual/Projected Water/Sewer Rate Increases	11.6%	9.9%	7.8%	8.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
*Operating Receipts \$ Increase/Decrease	7,460	35,441	23,388	39,363	53,809	28,567	39,764	41,514	46,113	48,507
Retail	423	(654)	2,460	2,533	2,609	2,688	2,768	2,851	2,937	3,025
Wholesale	-	-	-	-	-	-	-	-	-	-
*Operating Receipts % Increase/Decrease	1.3%	6.2%	3.9%	6.2%	8.0%	3.9%	6.3%	5.2%	5.5%	6.5%
Retail	0.5%	-0.7%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Wholesale	-	-	-	-	-	-	-	-	-	-

⁽¹⁾ Includes interest earnings on senior lien revenue bonds' debt service reserve fund
⁽²⁾ FY 2021 planned transfers of \$0.0 million to Rate Stabilization Fund and \$2.5 million utilization will bring the total fund balance to \$71.95 million

Schedule B

**District of Columbia Water & Sewer Authority
FY 2020 - FY 2029 Average Residential Customer Monthly Bill**

Units	Current		Proposed		FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
	FY 2020	FY 2021	FY 2022	Proposed							
DC Water Water and Sewer Retail Rates ⁽¹⁾	\$ 66.25	\$ 73.30	\$ 78.92	\$ 85.61	\$ 92.07	\$ 98.98	\$ 106.40	\$ 114.41	\$ 123.04	\$ 132.26	
DC Water Clean Rivers IAC ⁽²⁾	20.94	19.52	18.40	19.58	24.07	23.07	23.82	24.56	25.64	26.78	
DC Water Customer Metering Fee	3.86	4.96	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75	
DC Water Water System Replacement Fee ⁽⁴⁾	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	\$ 97.35	\$ 104.08	\$ 111.37	\$ 119.24	\$ 130.19	\$ 136.10	\$ 144.27	\$ 153.02	\$ 162.73	\$ 173.09	
Increase / Decrease	\$ 5.01	\$ 6.73	\$ 7.29	\$ 7.87	\$ 10.95	\$ 5.91	\$ 8.17	\$ 8.75	\$ 9.71	\$ 10.36	
District of Columbia PILOT Fee ⁽¹⁾	\$ 2.76	\$ 2.93	\$ 3.04	\$ 3.09	\$ 3.14	\$ 3.20	\$ 3.25	\$ 3.31	\$ 3.36	\$ 3.41	
District of Columbia Right-of-Way Fee ⁽¹⁾	1.03	1.03	1.03	1.03	1.08	1.08	1.08	1.08	1.08	1.14	
District of Columbia Stormwater Fee ⁽²⁾	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	\$ 6.46	\$ 6.63	\$ 6.74	\$ 6.79	\$ 6.89	\$ 6.95	\$ 7.00	\$ 7.06	\$ 7.11	\$ 7.22	
Total Amount Appearing on DC Water Bill	\$ 103.81	\$ 110.71	\$ 118.11	\$ 126.03	\$ 137.08	\$ 143.05	\$ 151.27	\$ 160.08	\$ 169.84	\$ 180.31	
Increase / Decrease Over Prior Year	\$ 5.11	\$ 6.90	\$ 7.40	\$ 7.92	\$ 11.05	\$ 5.97	\$ 8.22	\$ 8.81	\$ 9.76	\$ 10.47	
Percent Increase in Total Bill	5.2%	6.6%	6.7%	6.7%	8.8%	4.4%	5.7%	5.8%	6.1%	6.2%	

(1) Assumes average monthly consumption of 5.42 Ccf, or (4,054 gallons)

(2) Assumes average 1 Equivalent Residential Unit (ERU)

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

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

Schedule C

District of Columbia Water & Sewer Authority
Retail Rates, Charges and Fees
FY 2020 – FY 2022

	Units	FY 2020	Proposed FY 2021	Proposed FY 2022
DC Water Retail Rates Water (Residential Lifeline 0 - 4 Ccf)	Ccf	\$ 3.06	\$ 3.49	\$ 3.63
DC Water Retail Rates Water (Residential > 4 Ccf)	Ccf	\$ 4.10	\$ 4.50	\$ 4.74
DC Water Retail Rates Water (Multi-Family)	Ccf	\$ 3.54	\$ 3.96	\$ 4.15
DC Water Retail Rates Water (Non-Residential)	Ccf	\$ 4.25	\$ 4.65	\$ 4.91
DC Water Retail Rates Sewer	Ccf	\$ 8.89	\$ 9.77	\$ 10.64
DC Water Clean Rivers IAC	ERU	\$ 20.94	\$ 19.52	\$ 18.40
DC Water Customer Metering Fee	5/8"	\$ 3.86	\$ 4.96	\$ 7.75
DC Water Water System Replacement Fee	5/8"	\$ 6.30	\$ 6.30	\$ 6.30
District of Columbia PILOT Fee	Ccf	\$ 0.51	\$ 0.54	\$ 0.56
District of Columbia Right-of-Way Fee	Ccf	\$ 0.19	\$ 0.19	\$ 0.19
District of Columbia Stormwater Fee	ERU	\$ 2.67	\$ 2.67	\$ 2.67

Presented and Adopted: March 5, 2020

SUBJECT: Fiscal Year 2020-2021 Intent to Reimburse Capital Expenditures with Proceeds of a Borrowing

**#20-17
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 March 5, 2020, 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 2020-2021 Reimbursement of Capital Expenditures with Proceeds of a Borrowing.

WHEREAS, DC Water intends to acquire, construct and equip improvements to the “System,” which shall be considered “Costs of the System” as both terms are defined in the Master Indenture of Trust between DC Water and Wells Fargo Bank, N.A., dated April 1, 1998, potentially including, but not limited to 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 \$650,000,000 to pay costs of the Projects. These costs include amounts heretofore unreimbursed pursuant to Resolution 19-17 the Board adopted on April 4, 2019, plus amounts projected to be reimbursed during Fiscal Year 2020 – 2021.
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. 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
Capital Equipment
Washington Aqueduct

Presented and Adopted: March 5, 2020
SUBJECT: Proposed Fiscal Year 2021 and 2022 Metered Water and Sewer Service Rates, Right-of-Way (ROW), Payment-in-Lieu of Taxes (PILOT) Fee, Customer Metering Fees, Clean Rivers Impervious Area Charge (CRIAC), CAP CRIAC Discount and Amendments to CAP2 Regulations

**#20-19
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

The District members of the Board of Directors (“Board”) of the District of Columbia Water and Sewer Authority (“DC Water”) at the Board meeting held on March 5, 2020 upon consideration of a non-joint use matter, decided by a vote of six (6) in favor and none (0) opposed, to approve the following action with respect to the proposed Fiscal Year 2021 and Fiscal Year 2022 Metered Retail Rates for Water and Sewer Service, Clean Rivers Impervious Area Charge (IAC), Customer Metering Fees, the Right-of-Way Occupancy Fee Pass Through Charge (ROW), and Payment In Lieu of Taxes Fee (PILOT), CAP CRIAC Discount and Amendments to CAP2 Regulations.

WHEREAS, pursuant to Resolution 97-124, dated December 4, 1997, the Board has adopted a revised rate setting policy that calls for rates, charges and fees that, together with other revenue sources, yield a reliable and predictable stream of revenues and will generate sufficient revenues to pay for DC Water’s projected operating and capital expenses; and

WHEREAS, the Board has adopted various financial policies that require revenues to ensure compliance with Board policies regarding maintenance of senior debt coverage and cash reserves; and

WHEREAS, DC Water has three classes of customers: residential, multi-family and non-residential, as promulgated in Section 4104 of Title 21 of the District of Columbia Municipal Regulations (DCMR); and

WHEREAS, the DC Retail Water and Sewer Rates Committee met on January 28, 2020 to consider the proposed rate, charges and fees changes for Fiscal Year (“FY”) 2021 and FY 2022; and

WHEREAS, the DC Retail Water and Sewer Rates Committee recommended that the Board consider for public comment, a combined retail water and sewer rate increase of \$1.31 per one hundred cubic feet (“Ccf”) (\$1.75 per 1,000 gallons) for the first 4 Ccf of

Residential customer's water use (Lifeline) for FY 2021 and \$1.01 per one hundred cubic feet ("Ccf") (\$1.34 per 1,000 gallons) for the first 4 Ccf of Residential customer's water use (Lifeline) for FY 2022; and

WHEREAS, the proposed increase in Lifeline (Residential customer's first 4 Ccf of water usage) water and sewer rates will result in a combined water and sewer rate of \$13.26 per Ccf (\$17.73 per 1,000 gallons) of metered water and sewer use for FY 2021 and a combined water and sewer rate of \$14.27 per Ccf (\$19.07 per 1,000 gallons) for FY 2022; and

WHEREAS, the DC Retail Water and Sewer Rates Committee recommended that the Board consider for public comment, a combined retail water and sewer rate increase of \$1.28 per Ccf (\$1.71 per 1,000 gallons) for water usage greater than 4 Ccf for Residential customers for FY 2021 and a combined retail water and sewer rate increase of \$1.11 per Ccf (\$1.48 per 1,000 gallons) for water usage greater than 4 Ccf for Residential customers for FY 2022; and

WHEREAS, the proposed increase for water usage greater than 4 Ccf and the sewer rates for Residential customers will result in a combined water and sewer rate of \$14.27 per Ccf (\$19.08 per 1,000 gallons) of metered water and sewer use for FY 2021 and a combined water and sewer rate of \$15.38 per Ccf (\$20.56 per 1,000 gallons) of metered water and sewer use for FY 2022; and

WHEREAS, the DC Retail Water and Sewer Rates Committee recommended that the Board consider for public comment, a combined retail water and sewer rate increase of \$1.30 per Ccf (\$1.73 per 1,000 gallons) for Multi-family customers for FY 2021 and a combined retail water and sewer rate increase of \$1.06 per Ccf (\$1.42 per 1,000 gallons) for Multi-family customers for FY 2022; and

WHEREAS, the proposed increase in the water and sewer rates for Multi-family customers will result in a combined water and sewer rate of \$13.73 per Ccf (\$18.35 per 1,000 gallons) of metered water and sewer use for FY 2021 and a combined water and sewer rate of \$14.79 per Ccf (\$19.77 per 1,000 gallons) of metered water and sewer use for FY 2022; and

WHEREAS, the DC Retail Water and Sewer Rates Committee recommended that the Board consider for public comment, a combined retail water and sewer rate increase of \$1.28 per Ccf (\$1.71 per 1,000 gallons) for Non-Residential customers for FY 2021 and a combined retail rate increase of \$1.13 per Ccf (\$1.50 per 1,000 gallons) for Non-Residential customers for FY 2022; and

WHEREAS, the proposed increase in the water and sewer rates for Non-Residential customers will result in a combined water and sewer rate of \$14.42 per Ccf (\$19.28 per 1,000 gallons) of metered water and sewer use for FY 2021 and a combined water and sewer rate of \$15.55 per Ccf (\$20.78 per 1,000 gallons) of metered water and sewer use for FY 2022; and

WHEREAS, the DC Retail Water and Sewer Rates Committee recommended that the Board consider for public comment a decrease in the monthly Clean Rivers Impervious Area Charge of \$1.42 per Equivalent Residential Unit (ERU) for FY 2021 and a decrease in the monthly Clean Rivers Impervious Area Charge of \$1.12 per Equivalent Residential Unit (ERU) for FY 2022 to recover the \$2.7 billion costs of the Combined Sewer Overflow Long-Term Control Plan (CSO-LTCP); and

WHEREAS, the DC Retail Rates Committee recommended that the Board maintain the ROW fee at the current amount of \$0.19 per Ccf (\$0.25 per 1,000 gallons) of water used for FY 2021 and FY 2022 to recover the full cost of the District of Columbia government; and

WHEREAS, the DC Retail Water and Sewer Rates Committee recommended that the Board consider for public comment, an increase in the PILOT fee of \$0.03 per Ccf (\$0.04 per 1,000 gallons) for FY 2021 and an increase in the PILOT fee of \$0.02 per Ccf (\$0.03 per 1,000 gallons) for FY 2022 to recover the full cost of the District of Columbia government fees; and

WHEREAS, the DC Retail Water and Sewer Rates Committee recommended that the Board consider for public comment, an increase in the Customer Metering Fees, based on meter size from \$3.86 to \$4.96 for a 5/8 inch meter (typical residential customer meter) for FY 2021, and an increase from \$4.96 to \$7.75 for a 5/8 inch meter (typical residential customer meter) for FY 2022, and

WHEREAS, the DC Retail Water and Sewer Rates Committee recommended that the Board consider for public comments, an amendment of the Customer Assistance Program (CAP), to increase the CRIAC benefit from fifty percent (50%) off the monthly billed CRIAC to seventy-five percent (75%) off the monthly billed CRIAC for eligible CAP customers with an annual household income that meets the household income-eligibility requirements for the District's Low Income Home Energy Assistance Program (LIHEAP), below sixty percent (60%) of the State Median Income (SMI) for the District of Columbia; and

WHEREAS, the DC Retail Water and Sewer Rates Committee recommended that the Board consider for public comment, an amendment of the regulations to make DC Water's Customer Assistance Program II (CAP2) permanent; and

WHEREAS, adoption of these rate and fee changes would increase the monthly bill of the average Residential customer using 5.42 Ccf (or 4,054 gallons) by approximately \$6.90 per month or \$82.80 per year for FY 2021 and by approximately \$7.40 per month or \$88.80 per year for FY 2022; and

WHEREAS, DC Water's retail revenue projections for Fiscal Year 2021 reflect an approximate \$26.8 million increase due to the proposed \$30.9 million increase in retail water and sewer rates, an approximate \$0.4 million increase due to the proposed PILOT

fee increase, and an approximate \$4.5 million decrease due to the proposed Clean Rivers IAC decrease; and

WHEREAS, DC Water’s retail revenue projections for Fiscal Year 2022 reflect an approximate \$23.9 million increase due to the proposed \$28.9 million increase in retail water and sewer rates, an approximate \$0.4 million increase due to the proposed PILOT fee increase, and an approximate \$5.4 million decrease due to the proposed Clean Rivers IAC decrease; and

WHEREAS, DC Retail Water and Sewer Rates Committee recommend that the Board take final action on the proposed rate and fee increases, customer metering fees and amend regulations for the CAP2 program at the conclusion of the public notice and comment period and Public Hearing, which will occur over the next several months.

NOW THEREFORE BE IT RESOLVED THAT:

1. The Board finds that DC Water’s projected expenditures require that it propose, for public comment, the rate and fee increases described below:

Retail Metered Water Service Rates

- a. An increase in the rate for metered water services:

Metered Water Services

	FY 2020		FY 2021		FY 2022		FY 2021 vs. FY 2020		FY 2022 vs. FY 2021	
	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.
Residential customers - (0 – 4)	\$3.06	\$4.09	\$3.49	\$4.67	\$3.63	\$4.85	\$0.43	\$0.58	\$0.14	\$0.18
Residential customers – (> 4)	\$4.10	\$5.48	\$4.50	\$6.02	\$4.74	\$6.34	\$0.40	\$0.54	\$0.24	\$0.32
Multi-Family customers	\$3.54	\$4.73	\$3.96	\$5.29	\$4.15	\$5.55	\$0.42	\$0.56	\$0.19	\$0.26
Non-Residential customers	\$4.25	\$5.68	\$4.65	\$6.22	\$4.91	\$6.56	\$0.40	\$0.54	\$0.26	\$0.34

**Retail Sewer Service Rates
(Metered and Unmetered)**

- b. An increase in the rate for metered sewer services:

Metered Sewer Services

	FY 2020		FY 2021		FY 2022		FY 2021 vs. FY 2020		FY 2022 vs. FY 2021	
	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.
Residential customers	\$8.89	\$11.89	\$9.77	\$13.06	\$10.64	\$14.22	\$0.88	\$1.17	\$0.87	\$1.16
Multi-Family customers	\$8.89	\$11.89	\$9.77	\$13.06	\$10.64	\$14.22	\$0.88	\$1.17	\$0.87	\$1.16
Non-Residential customers	\$8.89	\$11.89	\$9.77	\$13.06	\$10.64	\$14.22	\$0.88	\$1.17	\$0.87	\$1.16

Clean Rivers Impervious Area Charge (CRIAC)

- c. A decrease in the annual Clean Rivers Impervious Area Charge (CRIAC) from \$251.28 to \$234.24 per Equivalent Residential Unit (ERU) in FY 2021 and a decrease in the annual Clean Rivers Impervious Area Charge (CRIAC) from \$234.24 to \$220.80 per Equivalent Residential Unit (ERU) in FY 2022.

The charge per ERU will be billed monthly at:

Clean Rivers Impervious Area Charge (CRIAC)

	FY 2020	FY 2021	FY 2022	FY 2021 vs. FY 2020 Incr. / (Decr.)	FY 2022 vs. FY 2021 Incr. / (Decr.)
	ERU	ERU	ERU	ERU	ERU
Residential customers	\$20.94	\$19.52	\$18.40	(\$1.42)	(\$1.12)
Multi-Family customers	\$20.94	\$19.52	\$18.40	(\$1.42)	(\$1.12)
Non-Residential customers	\$20.94	\$19.52	\$18.40	(\$1.42)	(\$1.12)

**District of Columbia Pass Through Charge
Right-of-Way Occupancy / PILOT Fee**

- d. There is no increase in the **Right-of-Way Occupancy Fee** in FY 2021 or 2022:

ROW

	FY 2020		FY 2021		FY 2022		FY 2021 vs. FY 2020 Incr. / (Decr.)		FY 2022 vs. FY 2021 Incr. / (Decr.)	
	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.
Residential customers	\$0.19	\$0.25	\$0.19	\$0.25	\$0.19	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00
Multi-Family customers	\$0.19	\$0.25	\$0.19	\$0.25	\$0.19	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00
Non-Residential customers	\$0.19	\$0.25	\$0.19	\$0.25	\$0.19	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00

- e. An increase in the **Payment-in-Lieu of Taxes Fee** for FY 2021 and FY 2022:

PILOT

	FY 2020		FY 2021		FY 2022		FY 2021 vs. FY 2020 Incr. / (Decr.)		FY 2022 vs. FY 2021 Incr. / (Decr.)	
	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.	Ccf	1,000 Gal.
Residential customers	\$0.51	\$0.68	\$0.54	\$0.72	\$0.56	\$0.75	\$0.03	\$0.04	\$0.02	\$0.03
Multi-Family customers	\$0.51	\$0.68	\$0.54	\$0.72	\$0.56	\$0.75	\$0.03	\$0.04	\$0.02	\$0.03
Non-Residential customers	\$0.51	\$0.68	\$0.54	\$0.72	\$0.56	\$0.75	\$0.03	\$0.04	\$0.02	\$0.03

Customer Metering Fee

- f. An increase in the Customer Metering Fees for FY 2021 and FY 2022, Increases for all meter sizes as shown in the table below:

Customer Metering Fees

Meter Size	FY 2020	FY 2021	FY 2022
5/8"	\$ 3.86	\$ 4.96	\$ 7.75
3/4"	\$ 4.06	\$ 5.22	\$ 8.16
1"	\$ 4.56	\$ 5.86	\$ 9.16
1x1.25"	\$ 4.83	\$ 6.21	\$ 9.70
1.5"	\$ 6.88	\$ 8.85	\$ 13.82
2"	\$ 7.54	\$ 9.69	\$ 15.14
2x1/2"	\$ 8.00	\$ 10.28	\$ 16.07
2x5/8"	\$ 8.00	\$ 10.28	\$ 16.07
3"	\$ 76.98	\$ 98.92	\$ 154.56
3x5/8"	\$ 77.94	\$ 100.16	\$ 156.49
3x3/4"	\$ 77.94	\$ 100.16	\$ 156.49
4"	\$ 137.37	\$ 176.52	\$ 275.81
4x3/4"	\$ 138.15	\$ 177.52	\$ 277.38
4x1"	\$ 138.15	\$ 177.52	\$ 277.38
4x2"	\$ 138.15	\$ 177.52	\$ 277.38
4x2x5/8"	\$ 181.04	\$ 232.64	\$ 363.49
6"	\$ 268.14	\$ 344.56	\$ 538.37
6x1"	\$ 272.70	\$ 350.42	\$ 547.52
6x1x1/2"	\$ 272.70	\$ 350.42	\$ 547.52
6x1/2"	\$ 323.09	\$ 415.17	\$ 648.70
6x3x3/4"	\$ 323.09	\$ 415.17	\$ 648.70
6x3"	\$ 323.09	\$ 415.17	\$ 648.70
8"	\$ 323.29	\$ 415.42	\$ 649.10
8x2"	\$ 323.29	\$ 415.42	\$ 649.10
8x4x1"	\$ 358.26	\$ 460.36	\$ 719.31
10"	\$ 317.91	\$ 408.51	\$ 638.30
10x2"	\$ 403.62	\$ 518.65	\$ 810.38
10x6x1"	\$ 403.62	\$ 518.65	\$ 810.38
10x6"	\$ 403.62	\$ 518.65	\$ 810.38
12"	\$ 329.66	\$ 423.61	\$ 661.89
12x6"	\$ 329.66	\$ 423.61	\$ 661.89
16"	\$ 349.45	\$ 449.04	\$ 701.62

Customer Assistance Program (CAP)

- g. Amend the CAP regulations to increase the percentage of Clean Rivers Impervious Area Charge (CRIAC) discount from 50% to 75% off the monthly billed CRIAC for eligible CAP customers with household incomes below 60% of the State Median Income (SMI) for the District of Columbia.
 - h. Amend CAP regulations to make DC Water's Customer Assistance Program II (CAP2) permanent for eligible CAP2 customers with household incomes at or above 60% of the SMI for the District of Columbia and below 80% of the Area Median Income (AMI) for the District of Columbia, not capped by the United States median low-income limit.
2. The General Manager is authorized to take all steps necessary in his judgment and as otherwise required, to initiate the public comment process and shall provide notice of the proposed rate adjustments and fees in the manner provided by DC Official Code § 34-2202.16(b), 21 DCMR Chapter 40, and the District of Columbia's Administrative Procedures.

This resolution is effective immediately.


Secretary to the Board of Directors