



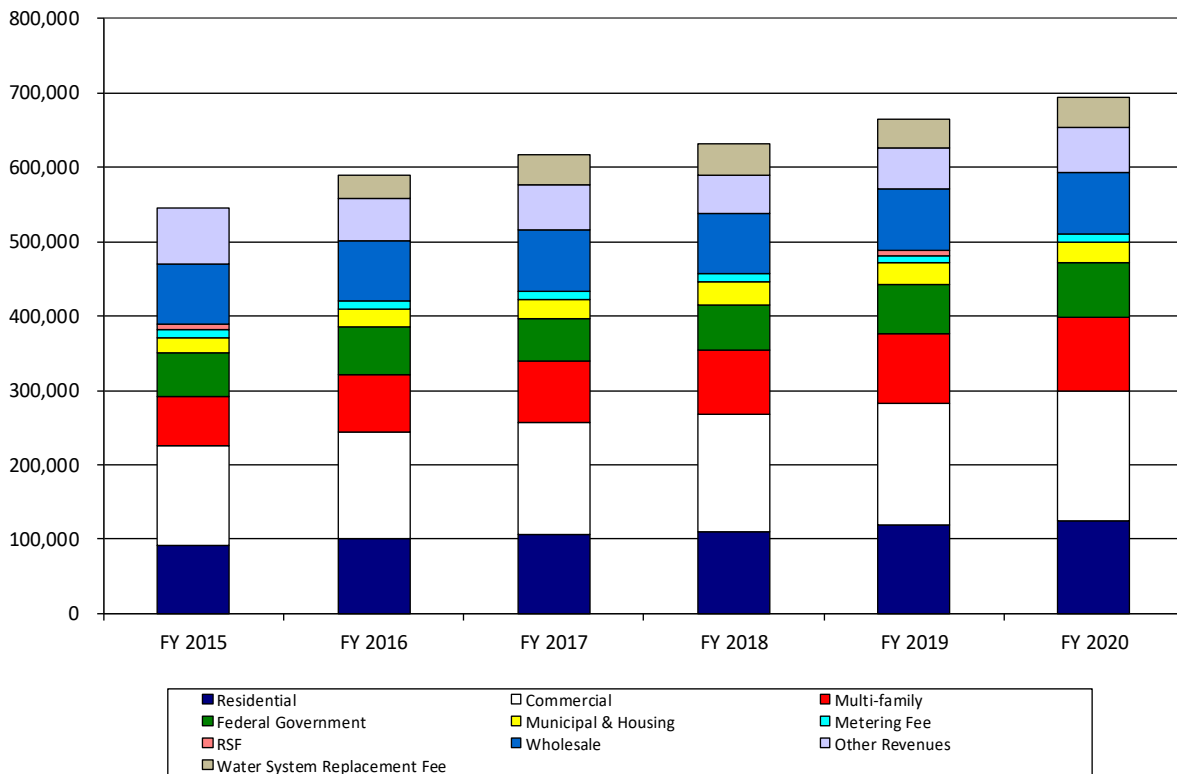
Approved FY 2020 Budgets
Section IV: RATES AND REVENUES



Meet and Greet 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 (\$000's)



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

	FY 2015 Actual	FY 2016 Actual	FY 2017 Actual	FY 2018 Actual	FY 2019 Revised	FY 2020 Proposed
Residential	\$90,765	\$100,032	\$106,417	\$109,135	\$118,531	\$124,353
Commercial	134,724	144,355	149,991	158,021	164,542	173,826
Multi-family	66,378	77,566	82,238	86,431	93,137	100,884
Sub-Total Residential, Commercial and Multi-family	\$291,867	\$321,953	\$338,646	\$353,587	\$376,210	\$399,063
Federal Government (1)	59,171	62,989	57,540	62,100	67,054	71,887
District Government	12,894	15,988	17,628	21,362	18,009	17,585
D.C. Housing Authority	6,968	8,772	8,560	8,704	9,860	10,525
Transfer from Rate Stabilization Fund	7,500	-	-	-	6,000	-
Water System Replacement Fee (WSRF)	-	30,287	40,522	40,896	39,717	39,717
Metering Fee	11,111	11,479	11,566	11,745	10,776	10,776
Total Retail	\$389,511	\$451,467	\$474,462	\$498,394	\$527,626	\$549,553
IMA Wastewater Charges	73,889	71,970	72,931	71,080	72,735	72,066
Potomac Interceptor Wastewater Charges	7,341	7,814	8,205	9,942	10,257	10,473
Total Wholesale	\$81,230	\$79,784	\$81,136	\$81,022	\$82,992	\$82,539
District Stormwater Revenue (2)	899	944	1,025	1,247	1,000	1,000
Misc. Rev. (e.g. water tap installation, fire hydrant usage, etc.)	31,169	33,703	37,748	26,881	25,317	28,840
Washington Aqueduct Debt Service Revenue for Falls Church & Arlington	193	193	193	193	193	193
Interest Income (including interest on Bond Debt Service Reserve Fund)	846	1,253	1,676	2,200	2,971	3,966
System Availability Fee (SAF)	-	-	-	-	3,850	5,775
Transfer from DC PILOT/ROW Fund	5,100	-	-	-	-	-
DC Contribution of 50% PILOT Fund to DCW	15,049	-	-	-	-	-
Right-of-Way Fee	5,100	5,100	5,100	5,100	5,100	5,100
PILOT Fee	16,998	16,885	15,677	16,136	16,601	17,013
Total Other	\$75,354	\$58,078	\$61,419	\$51,757	\$55,032	\$61,887
Total Operating Cash Receipts	\$546,095	\$589,329	\$617,017	\$631,173	\$665,650	\$693,979

- (1) Historical actuals are presented on revenue basis. Projected amounts shown are billed revenues. Actual Federal receipts are a combination of current year projected revenues and prior year adjustments, which are presented as reserve items. See Section 3 for further explanation.
- (2) Reflects District stormwater fee revenue that will fund DC Water's share of District stormwater permit compliance activities, and will not be funded through DC Water's retail rates or other DC Water revenue sources. See Section 3 for

CUSTOMER CATEGORIES AND ACCOUNTS

As of September 30, 2018, DC Water had 124,931 active, metered water and wastewater accounts. In addition, there are 7,484 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, D.C. Municipal and Housing Authority.

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 D.C. 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 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 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 multi-family 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% 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.

Residential, commercial and multi-family receipts are projected to increase in FY 2019 by approximately \$22.6 million, or 6.4 percent, over the FY 2018 level due to:

- Board-approved volumetric retail rate (water and sewer) increase of 13.0 percent, effective October 1, 2018
- Board-approved Clean Rivers Project CRIAC rate decreased from \$25.18 in FY 2018 to \$ 23.00 per ERU in FY 2019

- 1 percent decrease in consumption due to conservation from projected 2018 consumption
- In FY 2018, DC Water’s collections on its retail receivables was strong, with accounts receivable over 90 days at \$13.4 million as of September 30, 2018. DC Water will continue its aggressive collection efforts
- The customer assistance program reduces projected revenues by approximately \$2.9 million

Residential, commercial and multi-family customers:

- In FY 2019, residential customers include 105,430 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 2019, there are 8,332 accounts that comprise 14.0 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 9,028 accounts and will comprise 24.7 percent of the projected FY 2019 operating revenues. In FY 2020, they will comprise 25.0 percent of the fiscal year operating revenue.

FY 2020 projections for Residential, Multi-Family and Commercial customers reflect an increase of \$22.9 million, or 6.1 percent from FY 2019 revised due primarily to proposed retail rate increase of 11.5 percent (combined water and sewer volumetric rates), and a decrease of \$2.06 monthly ERU fee for the Clean Rivers Impervious Area Charge (CRIAC). In FY 2019 and onwards, one percent decrease in consumption has been assumed due to conservation.

The Federal customers’ revised FY 2019 receipts are projected to total \$67.1 million; an increase of \$5.0 million, or 8.0 percent over FY 2018. In FY 2020, Federal revenues are projected to be \$71.9 million or 10.4 percent of the total operating revenues. The projected federal revenues will be higher by \$4.8 million or 7.2 percent in FY 2020 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.

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 2019 billing was prepared in April 2017), 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, to be 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, revised FY 2019 federal revenues reflect the final billing sent to the federal government in April 2017 net of the adjustment for the prior year (FY 2016) 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 2019 receipts from the District of Columbia government and the District of Columbia Housing Authority are projected at \$27.9 million, a decrease of \$2.2 million or 7.3 percent over FY 2018. In FY 2020, receipts from these organizations are projected to total \$28.1 million, an increase of \$0.2 million, or 0.9 percent, mainly due to increases in retail volumetric rates. In FY 2020, the projected increase is \$0.2 million or 0.9 percent over FY 2019.

- The municipal customer group includes 517 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 2.7 percent of the FY 2019 operating budget and 2.5 percent of the proposed FY 2020 budget.
- The D.C. Housing Authority has multiple accounts that include public housing at various facilities throughout the District of Columbia. They have 1,130 accounts. Their annual billings make up only 1.5 percent of the FY 2019 cash receipts and 1.5 percent of the proposed FY 2020 cash receipts.

Wholesale customer revenue - FY 2019 revenues are projected at \$83.0 million, an increase of \$2.0 million or 2.4 percent compared to FY 2018. In FY 2020, wholesale revenues are projected to decrease by \$0.5 million or 0.5 percent to \$82.5 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 in November, February, May and August. Receipts are projected to be 12.5 percent and 11.9 percent of total receipts in FY 2019 and FY 2020 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



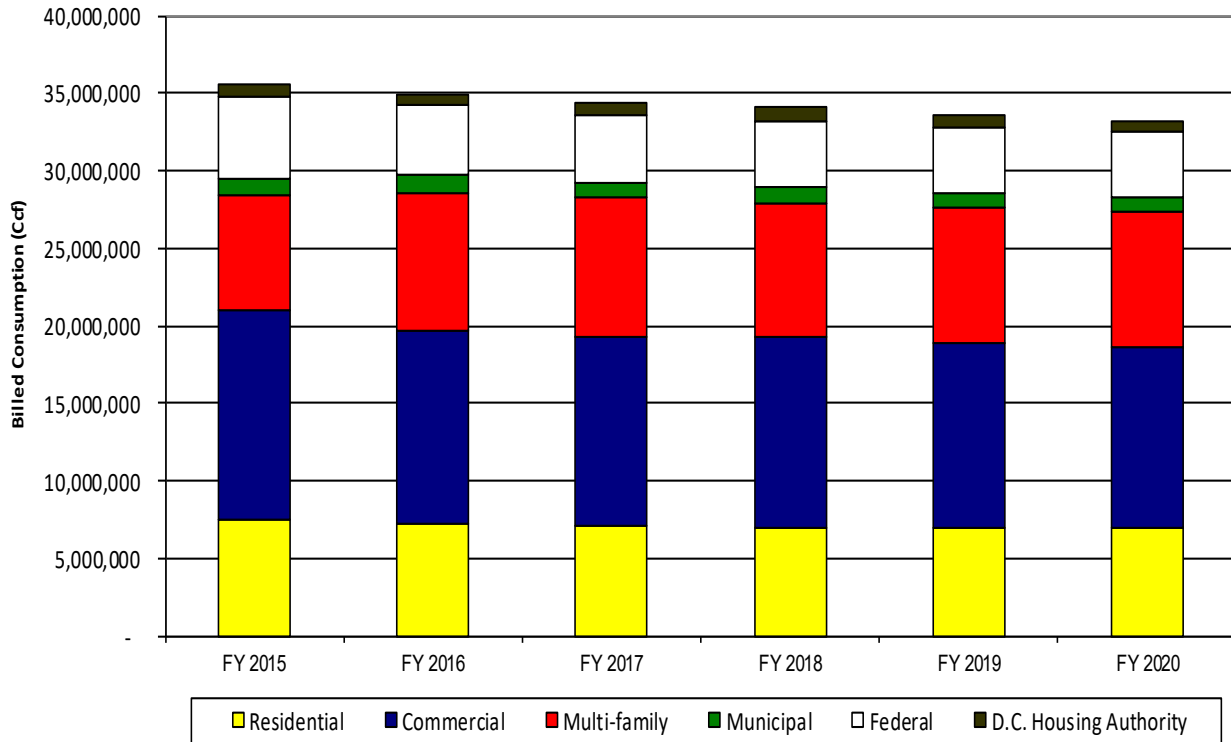
DC Water Revenue Receipts

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 0.9 percent in FY 2018. Given the uncertainty of the current economy as well as the federal government’s goal to close some neighboring federal facilities and implement a number of conservation best practices over the next few years, the revenue projections assume a 1 percent decline in FY 2019 over FY 2018 projection and 1 percent decline in FY 2020 and beyond.

Historical and Projected Billed Consumption (Ccf)



Historical and Projected Billed Consumption (Ccf)

	FY 2015 Actual	FY 2016 Actual	FY 2017 Actual	FY 2018 Actual	FY 2019 Projected	FY 2020 Projected
Residential	7,431,013	7,262,184	7,108,543	6,961,844	6,967,000	6,897,000
Commercial (1)	13,507,756	12,440,516	12,144,071	12,353,040	11,902,000	11,783,000
Multi-family	7,437,925	8,889,754	9,013,474	8,574,676	8,712,000	8,625,000
Municipal (2)	1,066,587	1,110,717	993,799	1,024,775	974,000	964,000
Federal	5,319,948	4,493,362	4,335,937	4,339,051	4,250,000	4,208,000
D.C. Housing Authority	<u>795,696</u>	<u>761,401</u>	<u>765,900</u>	<u>800,225</u>	<u>750,000</u>	<u>743,000</u>
Total Retail	35,558,925	34,957,934	34,361,724	34,053,611	33,555,000	33,220,000

(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% 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.

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 2019 to FY 2020 are listed below:

Water Volumetric	Class-Based (w/ lifeline)	
	FY 2019	FY 2020
Residential - 0-4 Ccf	\$2.91	\$3.06
Residential - >4 Ccf	\$3.90	\$4.10
Multi-Family / DC Housing	\$3.37	\$3.54
Non-Residential	\$4.05	\$4.25

Water System Replacement Fee (WSRF)

Effective October 1, 2015 (FY 2016), DC Water modified its existing rate structure and implemented a new meter-based Water System Replacement Fee (WSRF) in order to recover the cost of the 1% renewal and replacement program for water service lines. It is anticipated that the 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% credit for this fee.

Effective October 1, 2017 (FY 2018), DC Water amended the 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 – 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 – 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.

The benefits of multi-year rates include:

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

The proposed CRIAC shift to sewer volumetric with 18% in FY 2020, 28% in FY 2021 and 37% 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 of 5.7 percent is the same as previously forecasted for FY2020. The gradual shift helps avoid rate shock to customers. The CRIAC for FY 2020 is projected to decrease from \$25.58 to \$20.94 per ERU, per month.

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

Redevelopment – 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, 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 CRIAC. The CRIAC became effective May 1, 2017.

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.

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% Shift – calculated based on an average of pollutants concentrations in sanitary wastewater, stormwater runoff and Combined Sewer Overflow (CSO); and 2) 37% Shift – calculated based on volume of sanitary wastewater, stormwater runoff and CSO. The 18% 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% Shift volumetric methodology has a greater justification, more easily defended and could be phased-in.

However, based on meetings with the DCWSA and discussions with the customer groups, an 18% 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% cost from the CRIAC to sewer volumetric rate to be phased-in 18% in FY 2020, 28% in FY 2021 and 37% 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% 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 DCWSA voiced concerns that the Clean Rivers Area Program Discount 4% 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% to 20%, effective October 1, 2019.

The Board has approved the following rates and fees to be effective from October 1, 2018:

- Water volumetric rates:
 - Residential customers: “Consumption of 0 – 4 Ccf” - water rate decrease of \$0.48 per Ccf, {\$0.64 per 1,000 gallons} from \$3.39 per Ccf to \$2.91 per Ccf, {\$3.89 per 1,000 gallons}
 - Residential customers: “Consumption greater than 4 Ccf” - water rate decrease of \$0.36 per Ccf, {\$0.49 per 1,000 gallons} from \$4.26 per Ccf to \$3.90 per Ccf, {\$5.21 per 1,000 gallons}
 - Multi-family customers: water rate decrease of \$0.43 per Ccf, {\$0.57 per 1,000 gallons} from \$3.80 per Ccf to \$3.37 per Ccf, {\$4.51 per 1,000 gallons}
 - Non-Residential customers: water rate decrease of \$0.35 per Ccf, {\$0.46 per 1,000 gallons} from \$4.40 per Ccf to \$4.05 per Ccf, {\$5.42 per 1,000 gallons}
- Sewer rate increase of \$1.75 per Ccf, {\$2.34 per 1,000 gallons} for all classes of customers from \$6.00 per Ccf to \$7.75 per Ccf, {\$10.36 per 1,000 gallons}
- Monthly Clean Rivers Impervious Area Charge (CRIAC) decrease of \$2.18 from \$25.18 per ERU to \$23.00 per ERU
- Clean Rivers Impervious Area Charge (CRIAC) six-tier residential rates structure is shown in the table below:

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

- The Water System Replacement Fee (WSRF) recovers the costs of 1% renewal and replacement program for water service lines. WSRF varies with meter size. There will be no increase in WSRF, which will remain same as in FY 2018. WSRF for 5/8” meter size is \$6.30.
- Right-of-Way Fee – This fee recovers the full cost of the Right-of-Way Fee charged to DC Water by the District of Columbia
 - There is no increase in the Right-of-Way Fee, which remains same at \$0.18 per Ccf, {\$0.24 per 1,000 gallons}

- Payment-in-Lieu of Taxes Fee – This fee recovers the cost of providing municipal services to DC Water by the District of Columbia. On September 4, 2014 the District and the Authority entered into a new Memorandum of Understanding (the “2014 PILOT MOU”) amending the 1998 PILOT MOU. According to the MOU, the Authority shall increase the amount of the PILOT payment by two percent per annum based on the amount of prior year’s annual PILOT payment.
 - Increase of \$0.01 per Ccf in the PILOT fee (\$0.01 per 1,000 gallons) to \$0.50 per Ccf, (\$0.67 per 1,000 gallons)
- These changes increased the typical residential customer’s total monthly bill by \$6.02 or 5.9 percent

The Board has proposed 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
- The WSRF recovers the cost of 1% 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 \$0.01 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

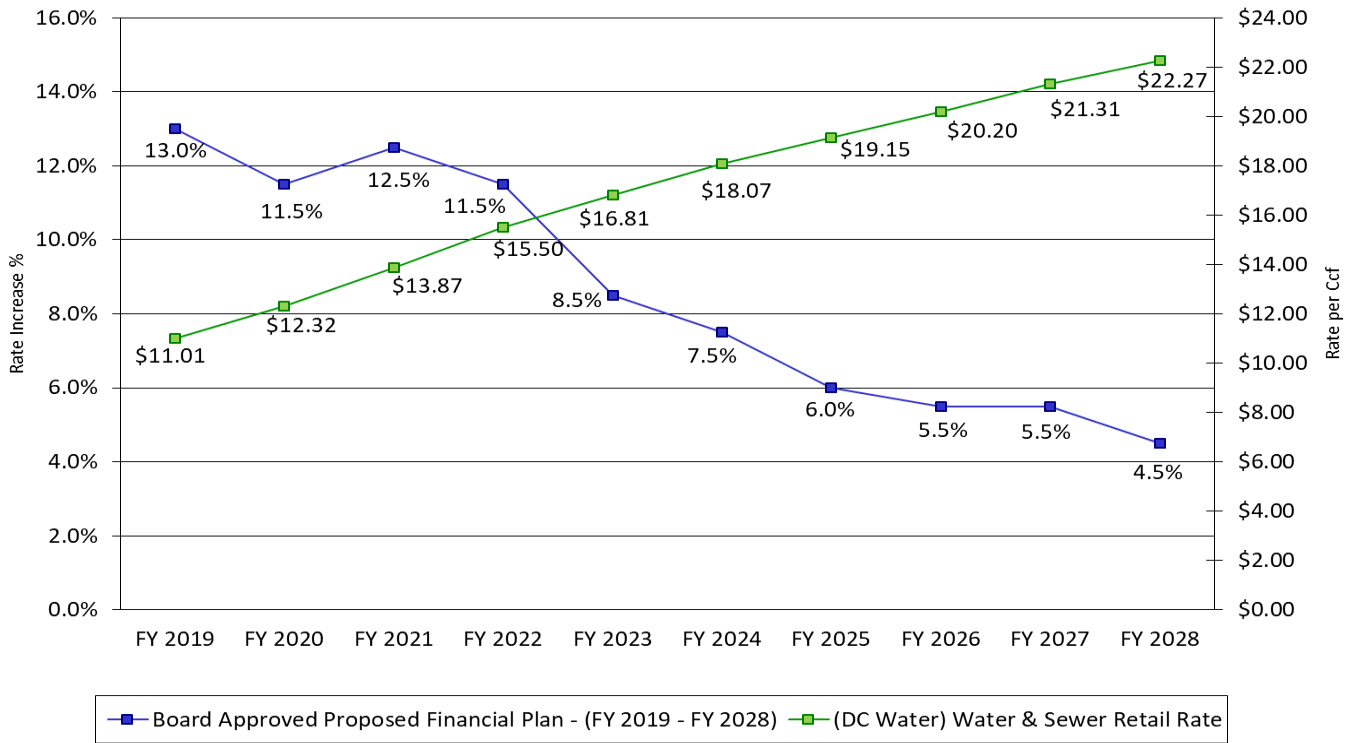
The ten-year projected water and sewer rate increases under this year's plan (FY 2019 – FY 2028) total 86.0 percent driven primarily by capital spending for DC Water's \$5.0 billion capital improvement program.

Primary spending in the ten-year capital plan includes: DC Clean Rivers Project (CSO LTCP) Enhanced Nitrogen Removal Facilities, Tunnel Dewatering Pump Station, 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 is 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 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. With the proposed shift, the overall household charges increase of 5.7 percent is the same as previously forecasted for FY 2020.

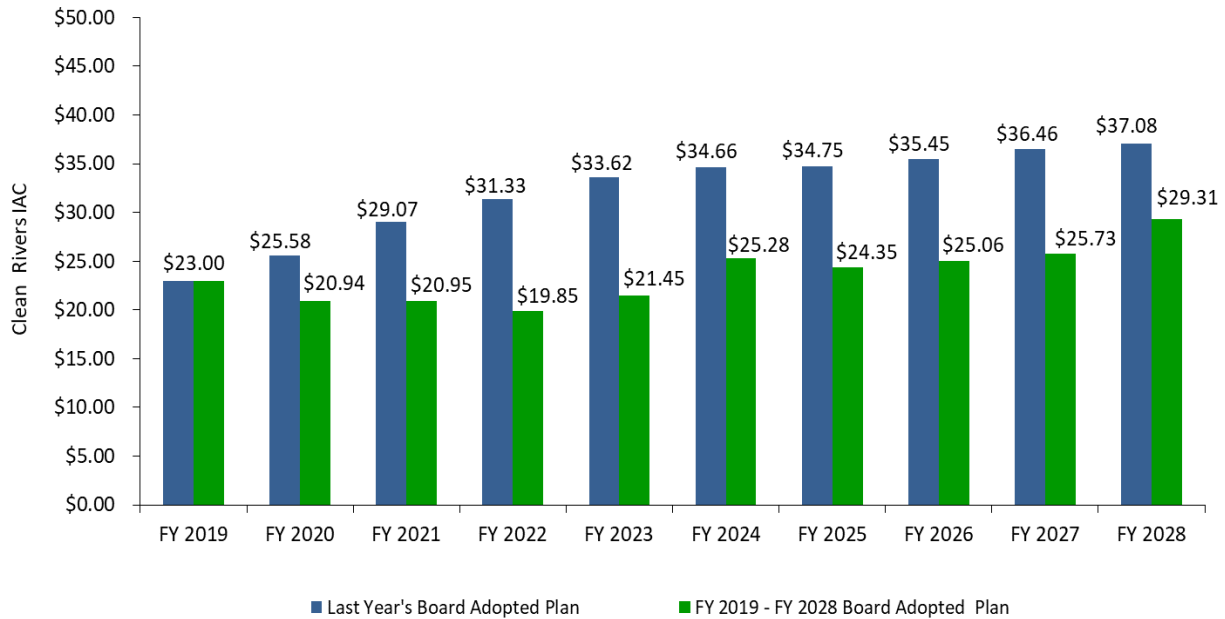
The public outreach and comment process for the rate proposal for FY 2020 will occur between May and June 2019. With the approval of the rates by DC Water Board, these changes will increase the typical residential customer's monthly bill by \$6.17 or 5.7 percent in FY 2020 as shown on page IV–27.

PROJECTED RETAIL WATER & SEWER RATE CHANGES FY 2019 – FY 2028



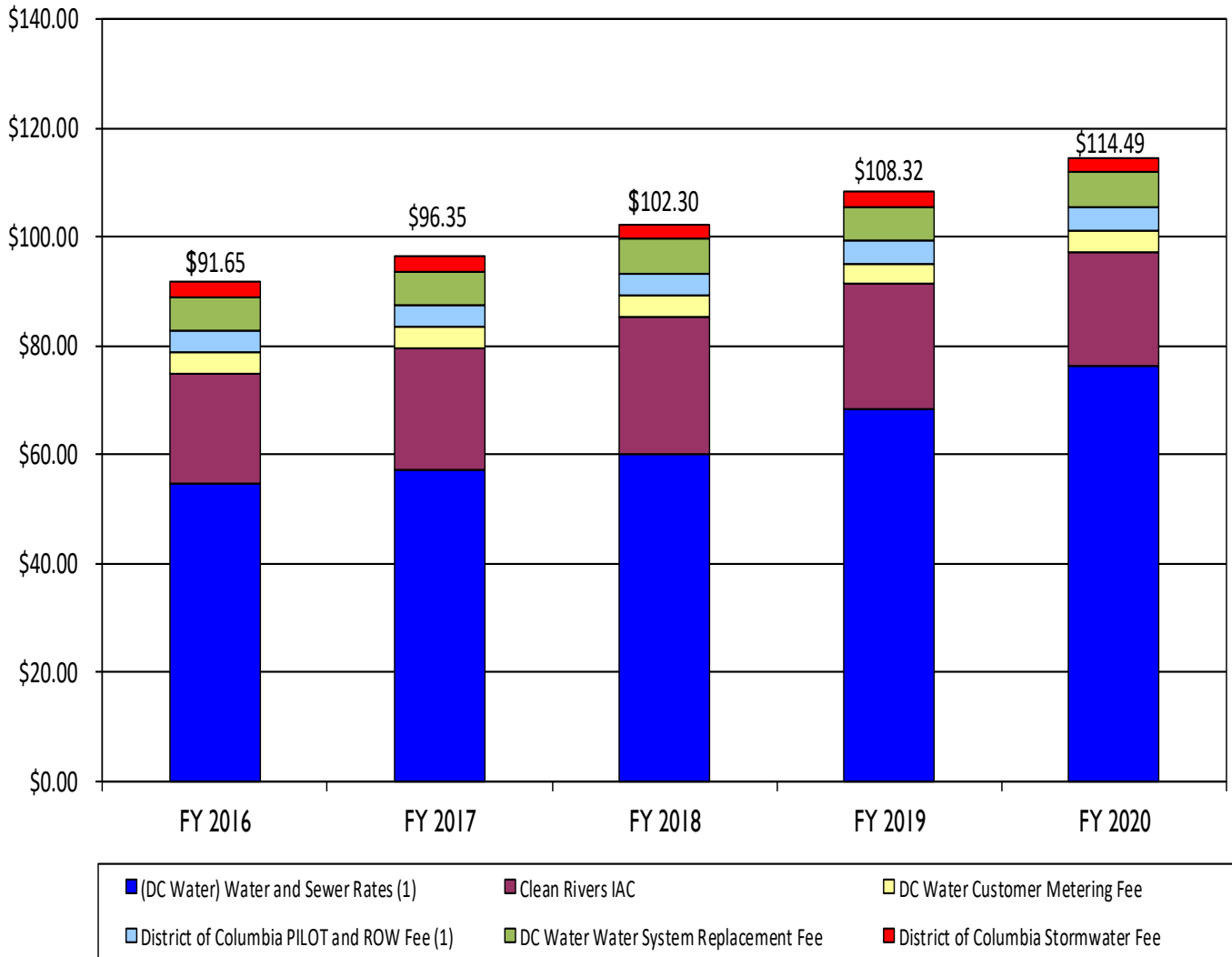
- 1) Rates shown above reflect weighted water and sewer rates for Residential customer category
- 2) In FY 2020 approved water and sewer rate increase of \$1.31 per Ccf, (\$1.75 per 1,000 gallons)
 - Combined water and sewer rate increases from \$11.01 to \$12.32 per Ccf
- 3) Rate increase of 11.5 percent for FY 2020

PROJECTED MONTHLY CLEAN RIVERS IMPERVIOUS SURFACE AREA CHARGE (CRIAC) CHANGES FY 2019 – FY 2028



- The projected charges displayed in the chart above are primarily driven by anticipated debt service costs necessary to support the twenty-five year \$2.7 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 \$251.28 in FY 2020 to \$351.72 in FY 2028
- The proposed CRIAC shift to sewer volumetric with 18% in FY 2020, 28% in FY 2021 and 37% 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 of 5.7 percent is the same as previously forecasted for FY2020. The gradual shift helps avoid rate shock to customers. The CRIAC for FY 2020 is projected to decrease from \$25.58 to \$20.94 per ERU, per month.

AVERAGE RESIDENTIAL CUSTOMER MONTHLY BILL FY 2016 – FY 2020



(1) Assumes average monthly consumption of 6.20 Ccf, or 4,638 gallons
 - FY 2020 cost per gallon is a little over \$0.01 (water and sewer rates only)

AVERAGE RESIDENTIAL CUSTOMER MONTHLY BILL

FY 2016 – FY 2020

	Units	FY 2016	FY 2017	FY 2018	Current FY 2019	Proposed FY 2020
DC Water Water and Sewer Retail Rates ⁽¹⁾	Ccf	\$ 54.56	\$ 57.25	\$ 60.13	\$ 68.27	\$ 76.38
DC Water Clean Rivers IAC ⁽²⁾	ERU	20.30	22.24	25.18	23.00	20.94
DC Water Customer Metering Fee	5/8"	3.86	3.86	3.86	3.86	3.86
DC Water Water System Replacement Fee ⁽⁴⁾	5/8"	6.30	6.30	6.30	6.30	6.30
Subtotal DC Water Rates & Charges		\$ 85.02	\$ 89.65	\$ 95.47	\$ 101.43	\$ 107.48
Increase / Decrease		\$ 10.97	\$ 4.63	\$ 5.82	\$ 5.96	\$ 6.05
District of Columbia PILOT Fee ⁽¹⁾	Ccf	\$ 2.91	\$ 2.98	\$ 3.04	\$ 3.10	\$ 3.16
District of Columbia Right-of-Way Fee ⁽¹⁾	Ccf	1.05	1.05	1.12	1.12	1.18
District of Columbia PILOT/ROW Fee ⁽¹⁾	Ccf	3.96	4.03	4.16	4.22	4.34
District of Columbia Stormwater Fee ⁽³⁾	ERU	2.67	2.67	2.67	2.67	2.67
Subtotal District of Columbia Charges		\$ 6.63	\$ 6.70	\$ 6.83	\$ 6.89	\$ 7.01
Total Amount Appearing on DC Water Bill		\$ 91.65	\$ 96.35	\$ 102.30	\$ 108.32	\$ 114.49
Increase / Decrease Over Prior Year		\$ 11.03	\$ 4.70	\$ 5.95	\$ 6.02	\$ 6.17
Percent Increase in Total Bill		13.7%	5.1%	6.2%	5.9%	5.7%

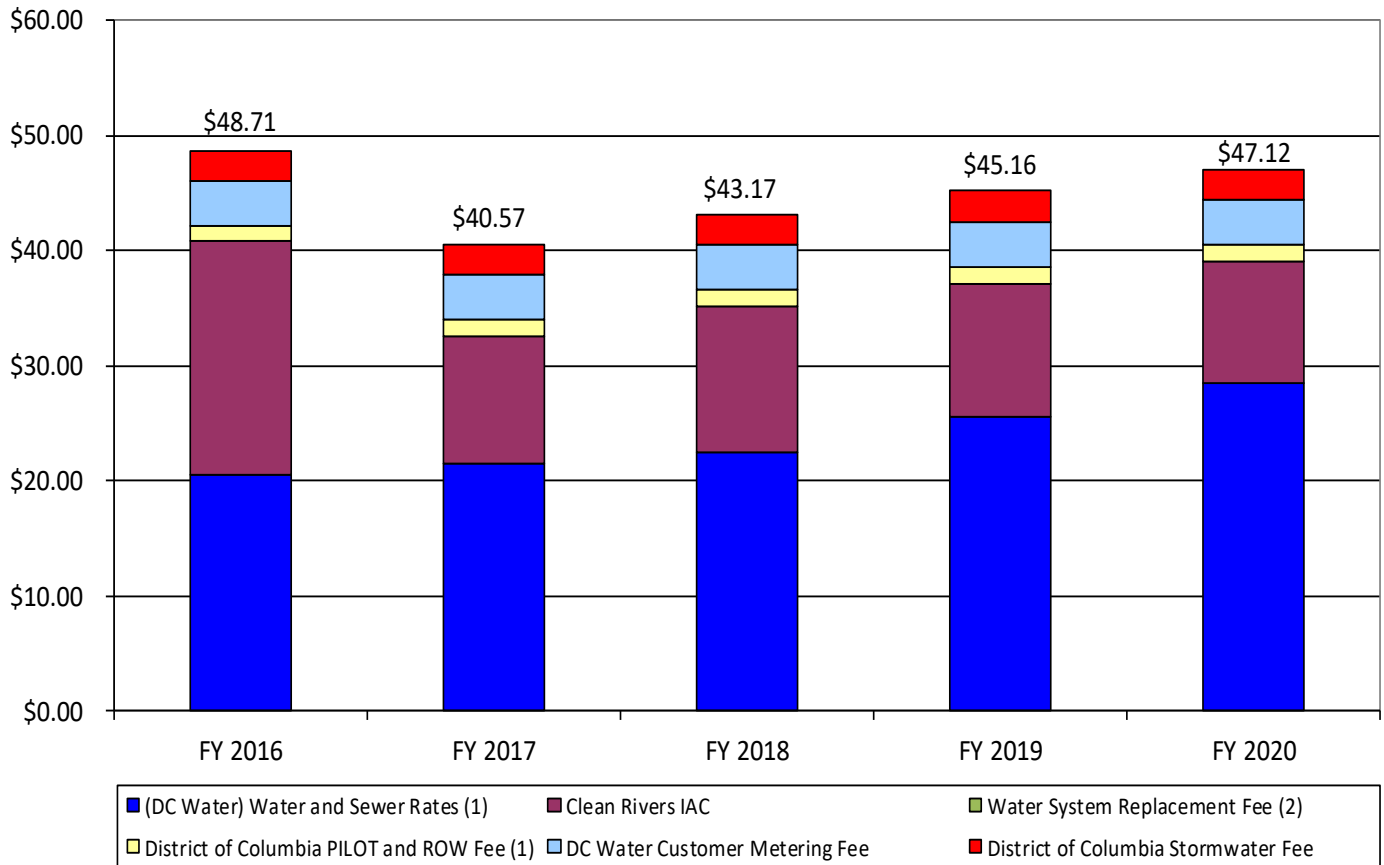
(1) Assumes average monthly consumption of 6.2 Ccf, or (4,638 gallons)

(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 2016 – FY 2020



- 1) Assumes average monthly consumption of 6.20 Ccf, or 4,638 gallons
 - FY 2020 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 50 percent credit for Clean Rivers Impervious Area Charge (CRIAC) to CAP customers

AVERAGE CAP CUSTOMER MONTHLY BILL

FY 2016 – FY 2020

	Units	FY 2016	FY 2017	FY 2018	Current FY 2019	Proposed FY 2020
DC Water Water and Sewer Retail Rates ⁽¹⁾	Ccf	\$ 54.56	\$ 57.25	\$ 60.13	\$ 68.27	\$ 76.38
DC Water Clean Rivers IAC	ERU	20.30	22.24	25.18	23.00	20.94
DC Water Customer Metering Fee	5/8"	3.86	3.86	3.86	3.86	3.86
DC Water Water System Replacement Fee	5/8"	6.30	6.30	6.30	6.30	6.30
Subtotal DC Water Rates & Charges		\$ 85.02	\$ 89.65	\$ 95.47	\$ 101.43	\$ 107.48
Increase / Decrease		\$ 10.97	\$ 4.63	\$ 5.82	\$ 5.96	\$ 6.05
District of Columbia PILOT Fee ⁽¹⁾	Ccf	\$ 2.91	\$ 2.98	\$ 3.04	\$ 3.10	\$ 3.16
District of Columbia Right-of-Way Fee ⁽¹⁾	Ccf	1.05	1.05	1.12	1.12	1.18
District of Columbia Stormwater Fee ⁽⁴⁾	ERU	\$ 2.67	\$ 2.67	2.67	2.67	2.67
Subtotal District of Columbia Charges		\$ 6.63	\$ 6.70	\$ 6.83	\$ 6.89	\$ 7.01
Total Amount		\$ 91.65	\$ 96.35	\$ 102.30	\$ 108.32	\$ 114.49
Less: CAP Discount (4 Ccf per month) ^{(1), (2)}		\$ (36.64)	(38.36)	(40.24)	(45.36)	(50.60)
Water System Replacement Fee (WSRF) ⁽³⁾		\$ (6.30)	(6.30)	(6.30)	(6.30)	(6.30)
Clean Rivers IAC ⁽⁵⁾		\$ -	(11.12)	(12.59)	(11.50)	(10.47)
Total Amount Appearing on DC Water Bill		\$ 48.71	\$ 40.57	\$ 43.17	\$ 45.16	\$ 47.12
Increase / Decrease Over Prior Year		\$ 5.09	\$ (8.14)	\$ 2.60	\$ 1.99	\$ 1.96
CAP Customer Discount as a Percent of Total Bill		-46.9%	-57.9%	-57.8%	-58.3%	-58.8%

(1) Assumes average monthly consumption of 6.2 Ccf, or (4,638 gallons)

(2) Expansion of CAP program in FY 2009 to first 4 Ccf of Water and Sewer and the 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 the Clean Rivers IAC effective May 1, 2017

AVERAGE CAP2 CUSTOMER MONTHLY BILL

FY 2019 – FY 2020

	Units		Current FY 2019	Proposed FY 2020
DC Water Water and Sewer Retail Rates ⁽¹⁾	Ccf	\$	68.27	\$ 76.38
DC Water Clean Rivers IAC	ERU		23.00	20.94
DC Water Customer Metering Fee	5/8"		3.86	3.86
DC Water Water System Replacement Fee	5/8"		6.30	6.30
Subtotal DC Water Rates & Charges		\$	101.43	\$ 107.48
Increase / Decrease		\$	5.96	\$ 6.05
District of Columbia PILOT Fee	Ccf	\$	3.10	\$ 3.16
District of Columbia Right-of-Way Fee	Ccf		1.12	1.18
District of Columbia Stormwater Fee	ERU		2.67	2.67
Subtotal District of Columbia Charges		\$	6.89	\$ 7.01
Total Amount		\$	108.32	\$ 114.49
Less: CAP2 Discount (3 Ccf per month) ⁽²⁾			(31.98)	(35.85)
Clean Rivers IAC ⁽³⁾			(11.50)	(10.47)
Total Amount Appearing on DC Water Bill		\$	64.84	\$ 68.17
Increase / Decrease Over Prior Year		\$	-	\$ 3.33
CAP Customer Discount as a Percent of Total Bill			-40.1%	-40.5%

(1) Assumes average monthly consumption of 6.2 Ccf, or (4,638 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 2020

	Units		Current FY 2019	Proposed FY 2020
DC Water Water and Sewer Retail Rates ⁽¹⁾	Ccf	\$	68.27	\$ 76.38
DC Water Clean Rivers IAC	ERU		23.00	20.94
DC Water Customer Metering Fee	5/8"		3.86	3.86
DC Water Water System Replacement Fee	5/8"		6.30	6.30
Subtotal DC Water Rates & Charges		\$	101.43	\$ 107.48
Increase / Decrease		\$	5.96	\$ 6.05
District of Columbia PILOT Fee	Ccf	\$	3.10	\$ 3.16
District of Columbia Right-of-Way Fee	Ccf		1.12	1.18
District of Columbia Stormwater Fee	ERU		2.67	2.67
Subtotal District of Columbia Charges		\$	6.89	\$ 7.01
Total Amount		\$	108.32	\$ 114.49
Less: CAP3 Discount Clean Rivers IAC ⁽²⁾			(17.25)	(15.71)
Total Amount Appearing on DC Water Bill		\$	91.07	\$ 98.78
Increase / Decrease Over Prior Year		\$	-	\$ 7.71
CAP Customer Discount as a Percent of Total Bill			-16.0%	-13.7%

(1) Assumes average monthly consumption of 6.2 Ccf, or (4,638 gallons)

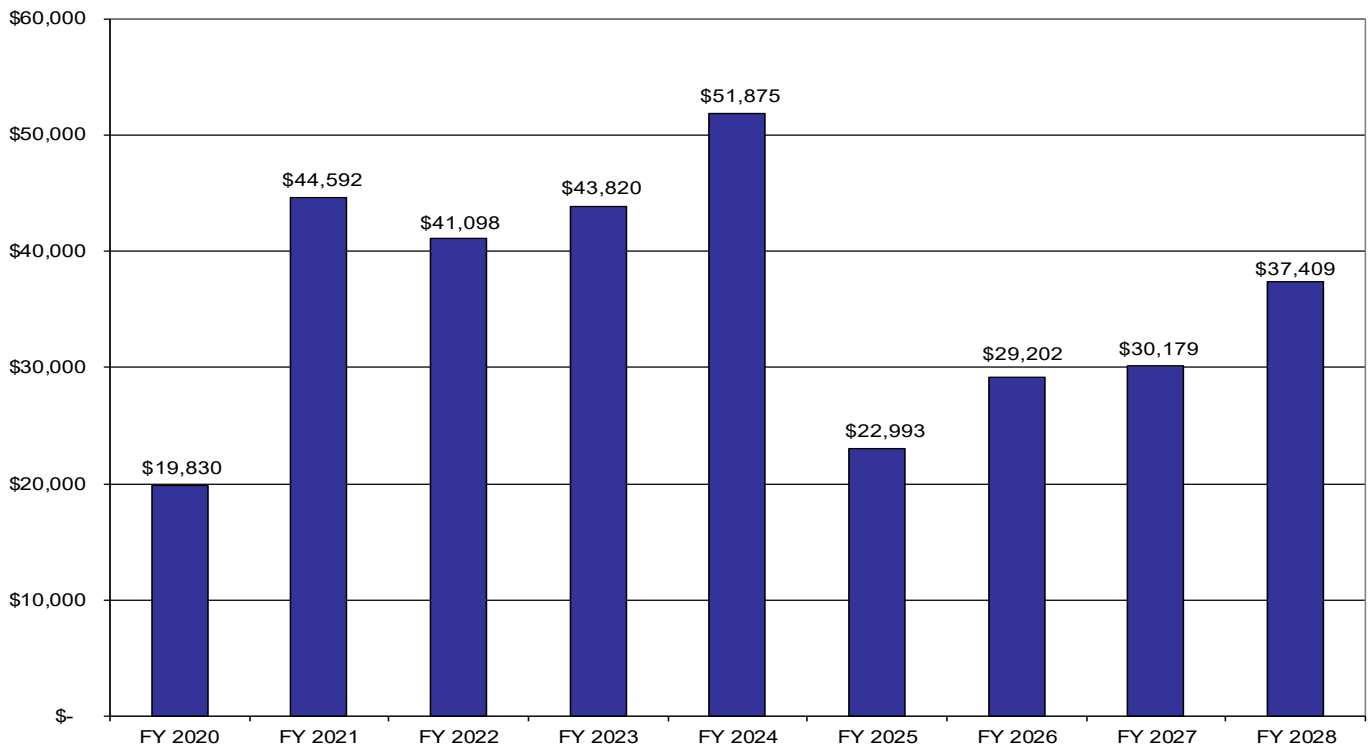
(2) Expansion of CAP3 program in FY 2019 assumes 75 percent discount for the Clean Rivers IAC

FY 2019 – FY 2028 FINANCIAL PLAN

As shown in the chart below, incremental increases in retail revenues are projected to range from \$19.8 million to \$51.9 million in FY 2020 – FY 2028, due to:

- Average annual debt service increase of 5.9 percent
- Average annual O&M increase of 3.1 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 2020 – FY 2028
 (\$000's)

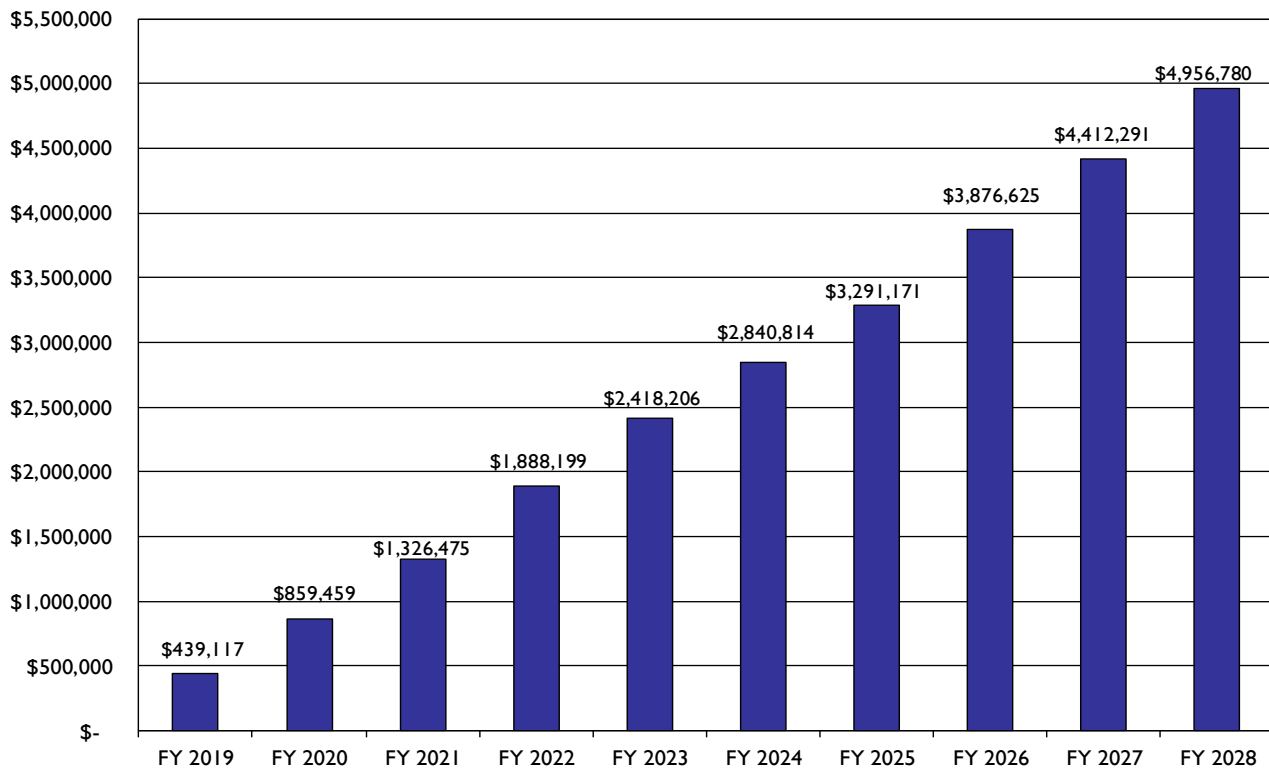


These costs would be recovered through:

- Proposed water and sewer rate increases of 11.5 percent in FY 2020 and 4.5 percent to 12.5 percent from FY 2021 to FY 2028
- Proposed Clean Rivers Impervious Surface Area Charge (CRIAC) revenues ranging from \$20.95 to \$29.31 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

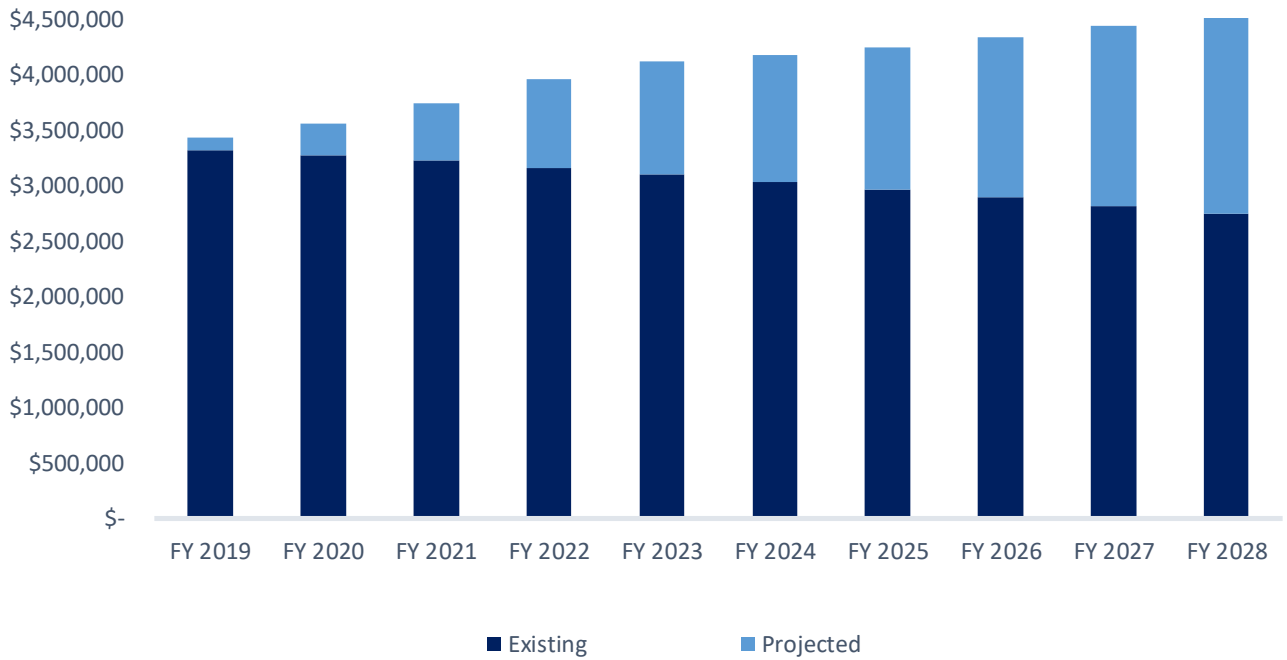
DC Water’s proposed rate increases are primarily required to fund increasing debt service costs from increased capital spending.

**CUMULATIVE CAPITAL SPENDING
FY 2019 – FY 2028
(\$000's)**



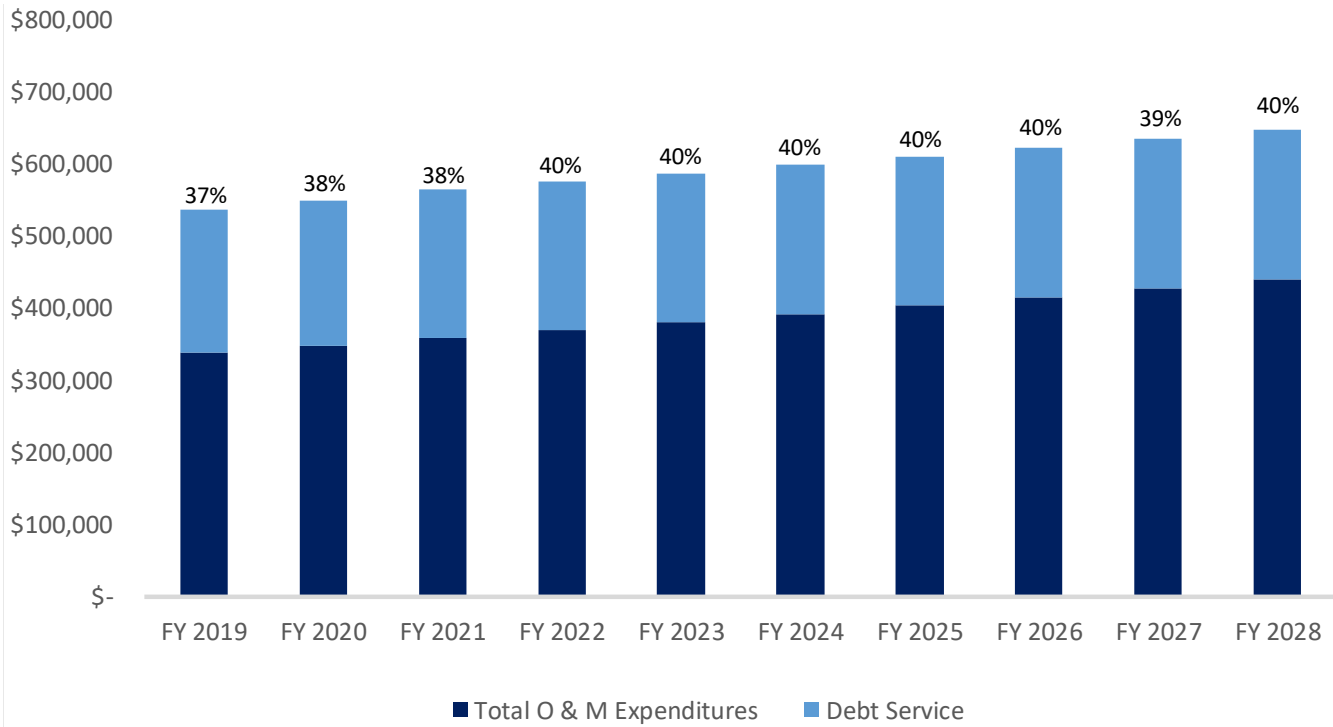
- DC Water’s ten-year capital improvement program totals \$5.0 billion, with annual spending ranging from \$420.3 million to \$561.7 million
- Once completed, the ten-year capital improvement project will double the book value of DC Water’s infrastructure
- The ten-year plan includes disbursements of the Clean Rivers Project (CSO LTCP), totaling nearly \$1.26 billion exclusive of nine minimum controls
- Water and sewer infrastructure continues to drive the ten-year Capital Improvement Plan from FY 2019 through FY 2028

NEW & EXISTING DEBT OUTSTANDING FY 2019 – FY 2028 (\$000's)

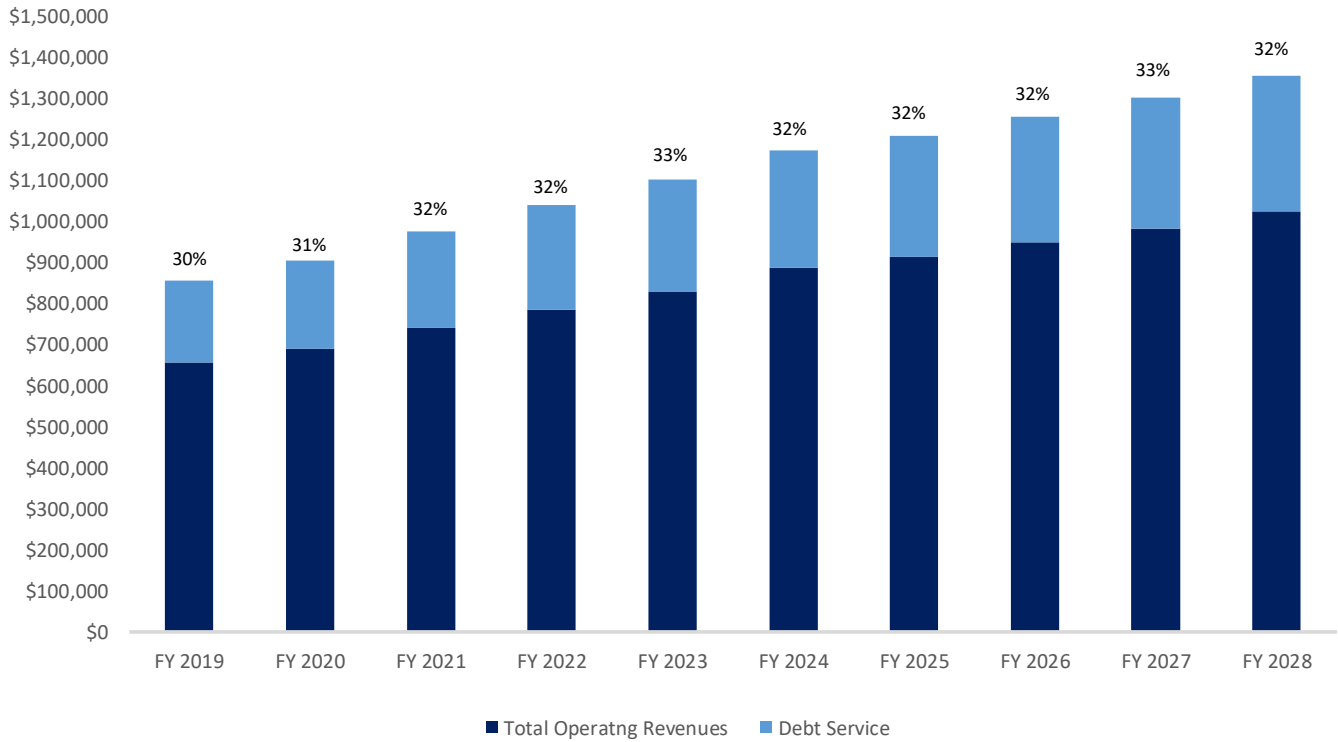


- The largest source of funding for DC Water’s capital program is debt
- Over the next ten years, DC Water will issue approximately \$1.8 billion in new debt (which includes the funding of reserves and costs of issuance), increasing total debt outstanding to \$4.6 billion at the end of FY 2028

**DEBT SERVICE AS PERCENT OF TOTAL OPERATING & MAINTENANCE EXPENDITURES
FY 2019 – FY 2028
(\$000's)**



DEBT SERVICE AS PERCENT OF TOTAL OPERATING REVENUES FY 2019 – FY 2028 (\$000's)



OPERATING & DEBT SERVICE EXPENDITURES

FY 2019 – FY 2028

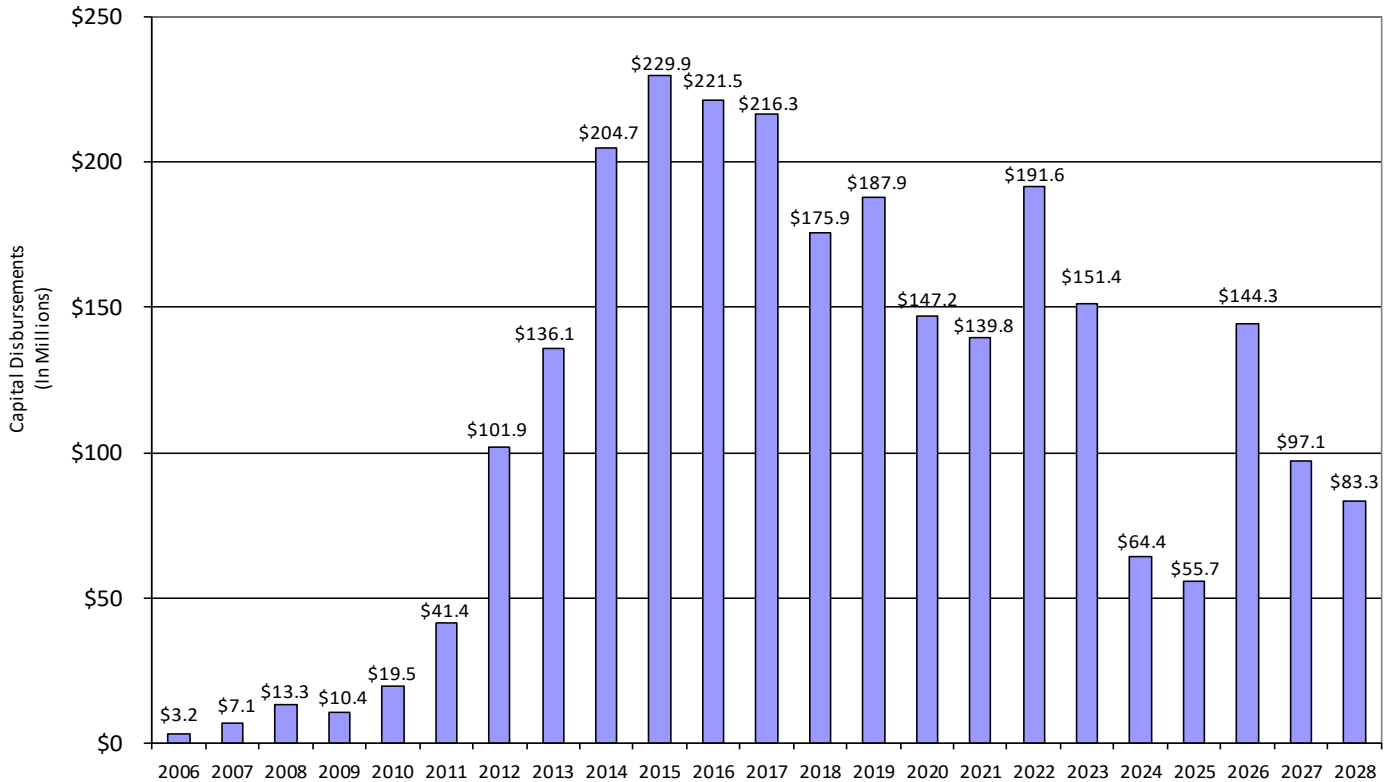
Over the ten-year period, total expenditures increase on average by 4.2 percent annually

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 3.1 percent annually
- Debt service expenditures grow at an annual average rate of 5.9 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

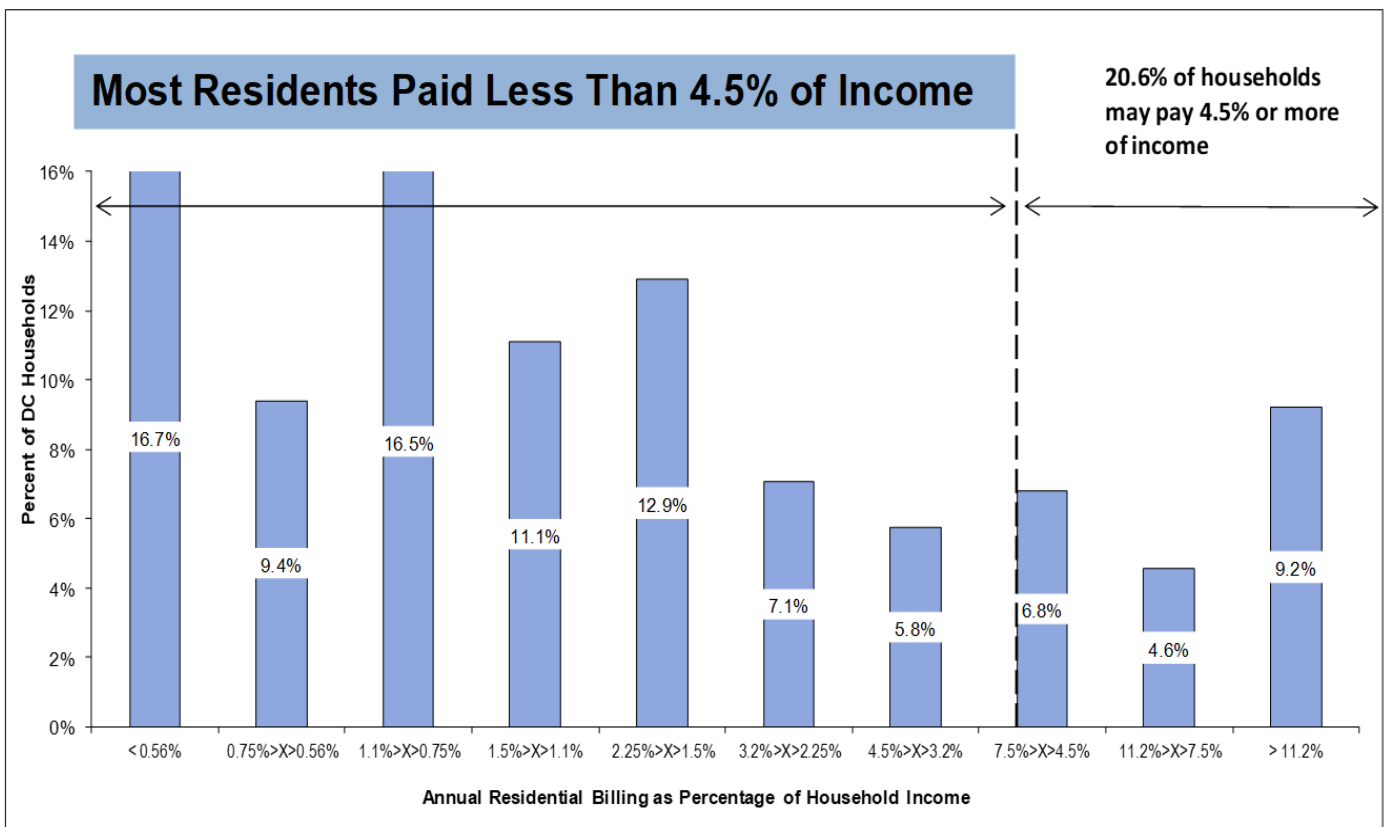
Clean Rivers CSO LTCP Disbursements by Fiscal Year

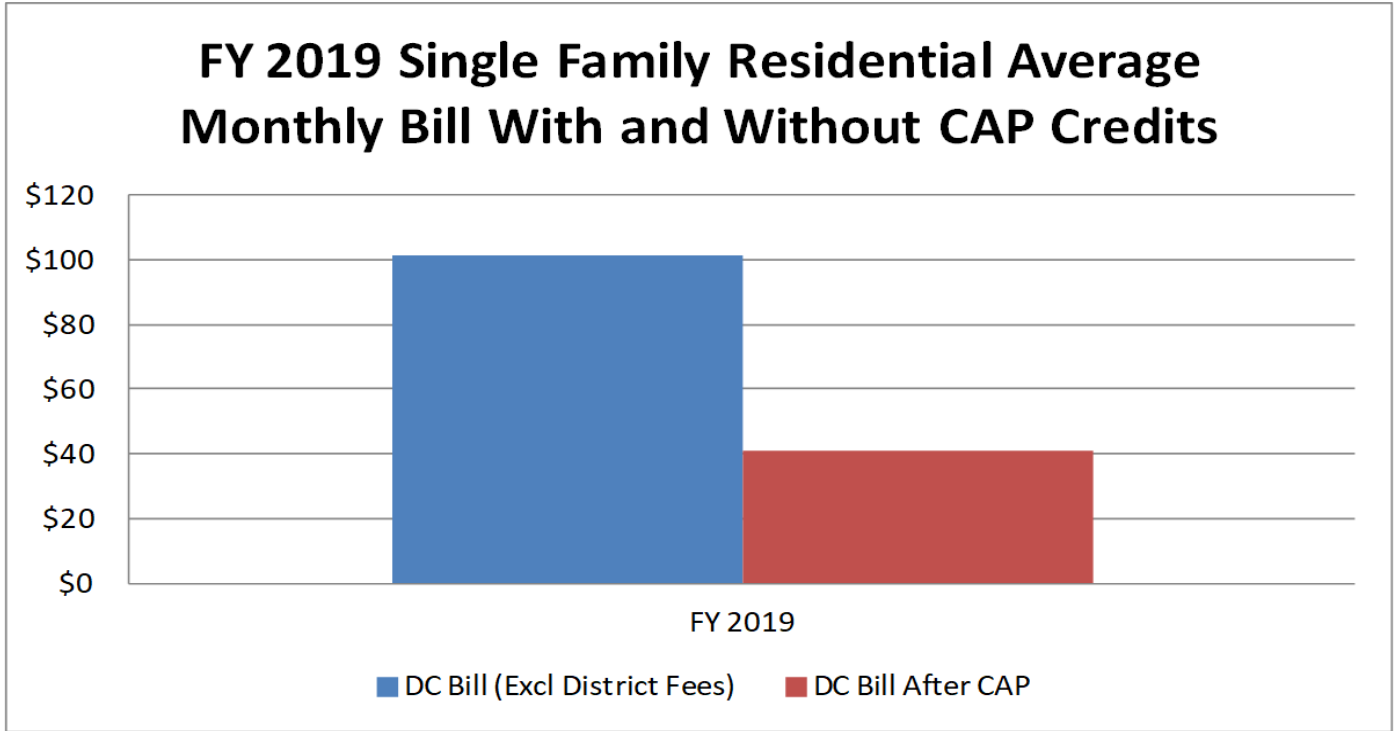


In December 2004, the Board reached an agreement with the federal government on the Clean Rivers Project (CSO-LTCP) and entered into a related consent decree. Actual and projected disbursements by fiscal year for the Clean Rivers Project are shown in the chart above and are the drivers for changes in the Clean Rivers Impervious Area Charge over the ten-year plan. Wholesale customers contribute 7.1 percent to the Clean Rivers Project. To mitigate impacts, DC Water continues to look for federal support for this program. As of September 30, 2018, \$252.8 million has been received through federal appropriations. Lifetime capital costs for the plan (exclusive of the nine – minimum controls program) total approximately \$2.7 billion, and this year’s proposed ten-year plan includes \$1.26 billion of projected Clean Rivers Project disbursements.

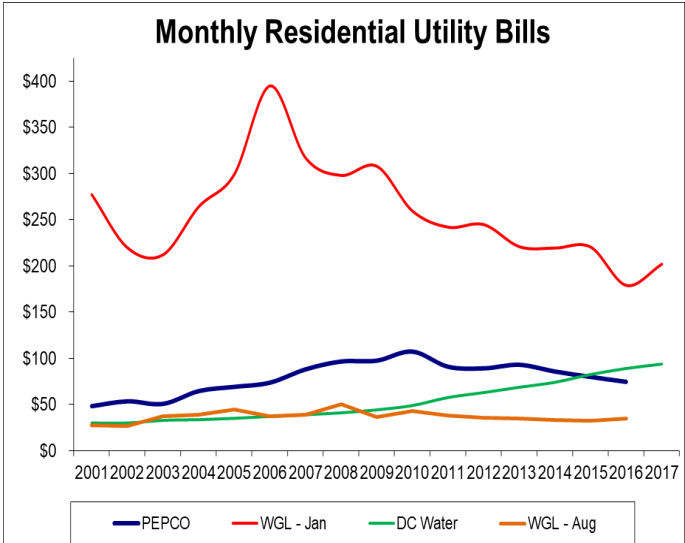
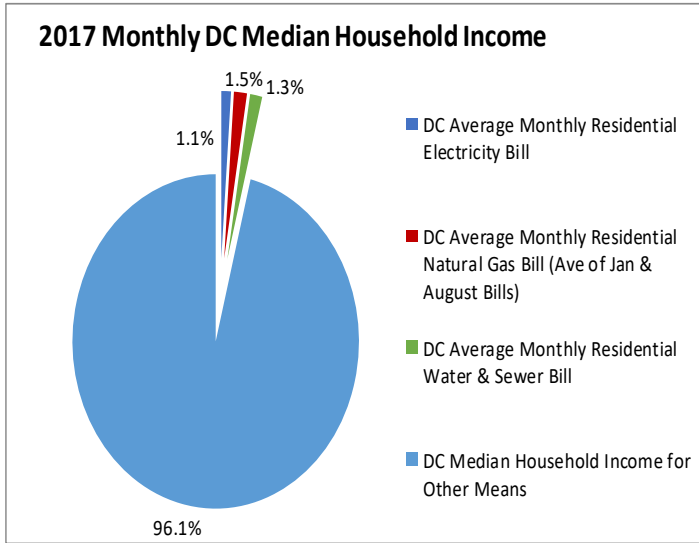
DC WATER CHARGES ARE STILL AFFORDABLE AND COMPETITIVE WITH OTHER MAJOR CITIES

- Median household income:** The average DC Water charges are less than 4.5% of income for 79.4% 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 2018 Federal Poverty level spends 1.96% of income on DC Water Bills



Observation:

- DC Water’s average monthly residential water & sewer bill is about 1.4 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:

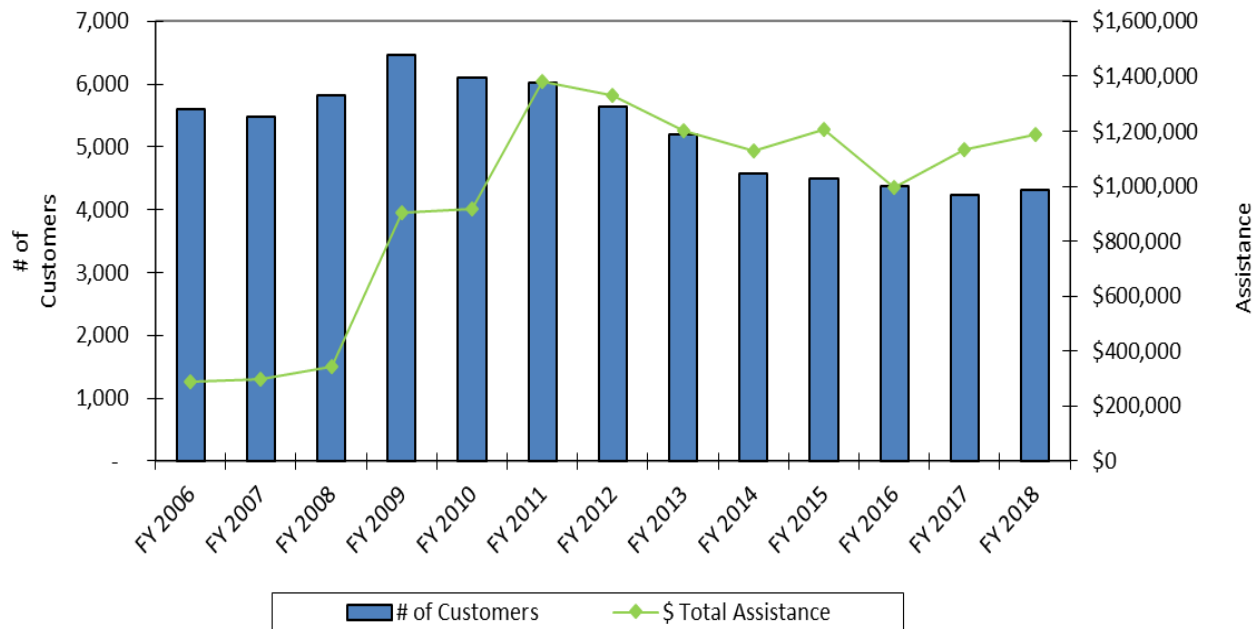
- Average DC customer is assumed to use 6.20 Ccf of water, 200 Therms of natural gas and 604 kWh of electricity per month in 2016

Source
 Electricity and Gas: DC Public Service Commission
 Water and Sewer: DC Water Assuming 6.20 Ccf, or 4,638 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, CAP assisted over 4,324 customers and provided \$1,188,574 in discounts to low-income customers. 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% of the area median income” with payment of CRIAC and to supplement the financial assistance programs implemented by DC Water. On December 6, 2018, the DC Water Board approved resolution #18-80 to expand the Customer Assistance Program (CAP) to establish rules for DC Water’s CAP2. Under CAP2 program, eligible single-family or individually metered residential customers shall receive a discount of up to 3 Ccf on their billed water and sewer service charges and 50% on their billed CRIAC in FY 2019.

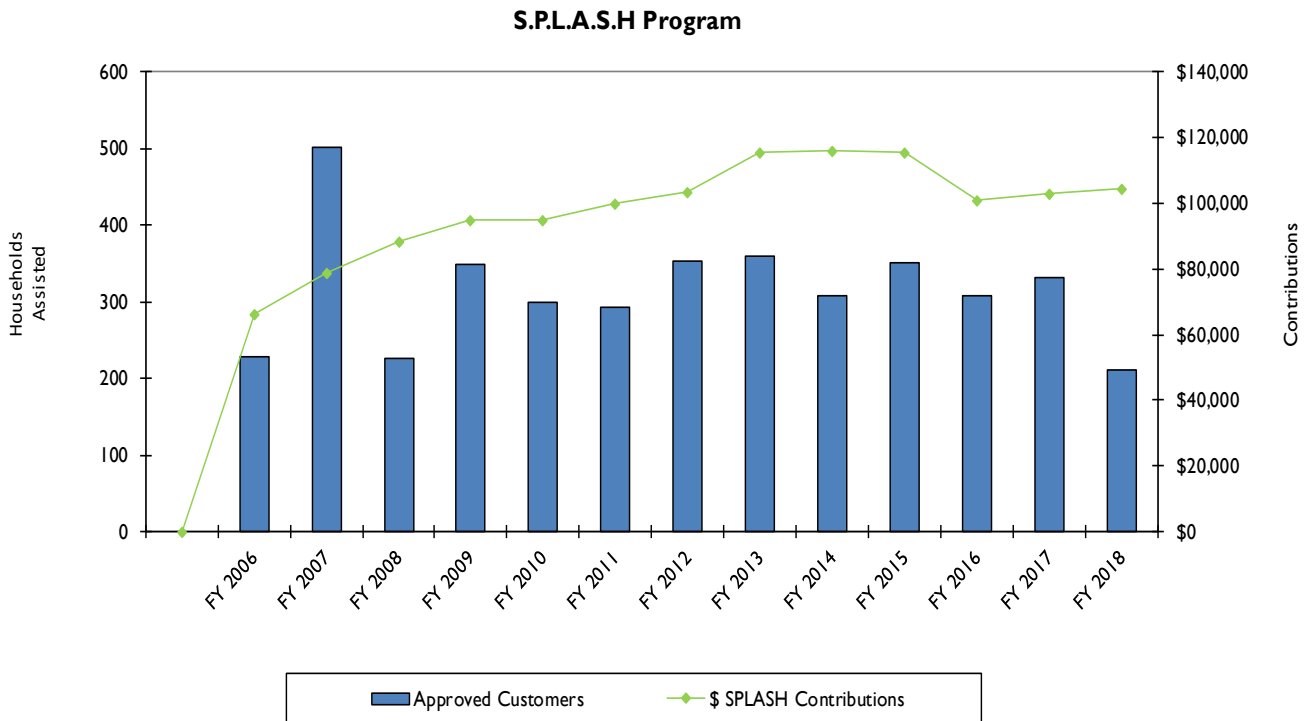
Customer Assistance Program



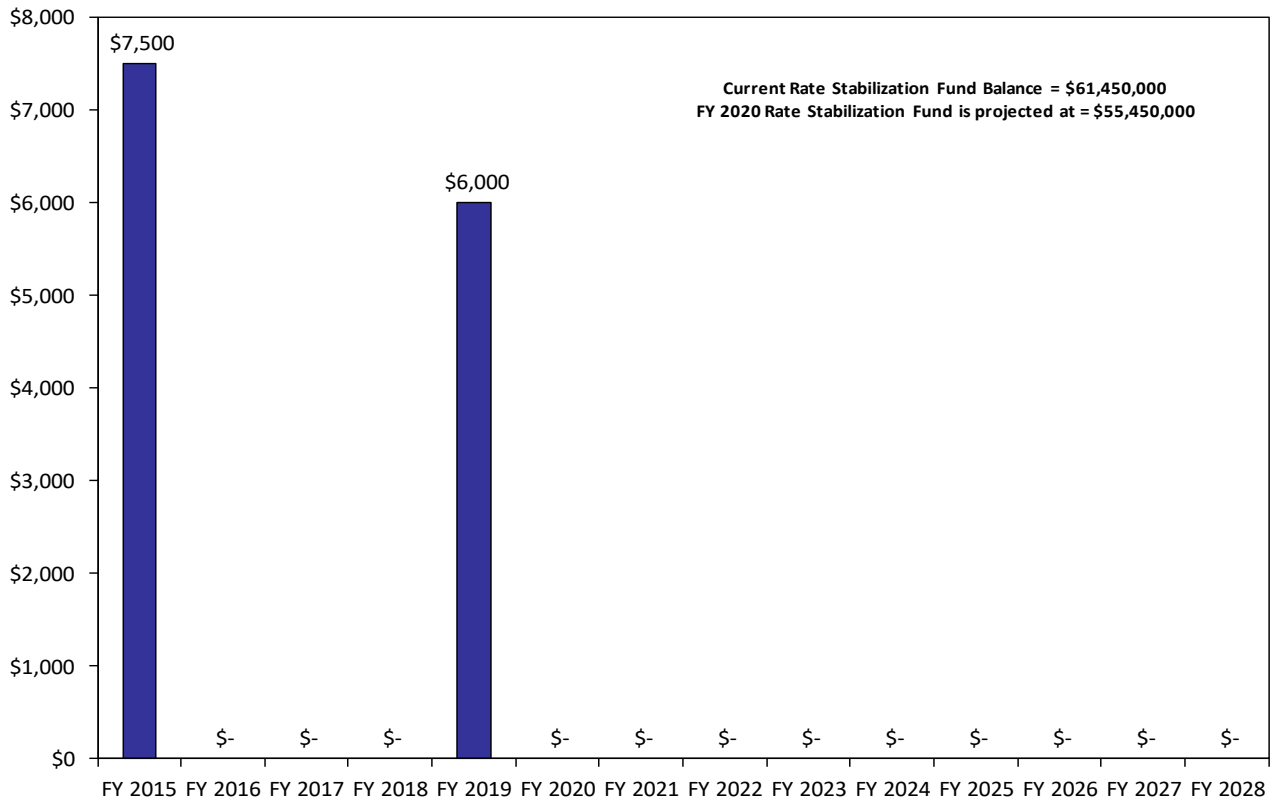
The following terms are defined:

- **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.
- **Customer Assistance Program II (CAP2)** – DC 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). Eligible customers receive a discount of up to 3 Ccf per month for water and sewer services and a 50 percent discount for CRIAC.
- **Customer Assistance Program III (CAP3)** – New 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. 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 2018, SPLASH assisted 212 households and provided \$104,361 in contributions to low-income customers.



RATE STABILIZATION FUND USAGE FY 2019 - FY 2028 (\$000's)



- At the end of FY 2018, DC Water’s rate stabilization fund (RSF) balance was \$61.45 million. As approved by the Board, \$6.0 million RSF will be utilized in FY 2019 to fund the CAP2 program. No RSF is proposed to be utilized from FY 2020 to FY 2028. RSF will have a balance of \$55.45 million at the end of FY 2028.

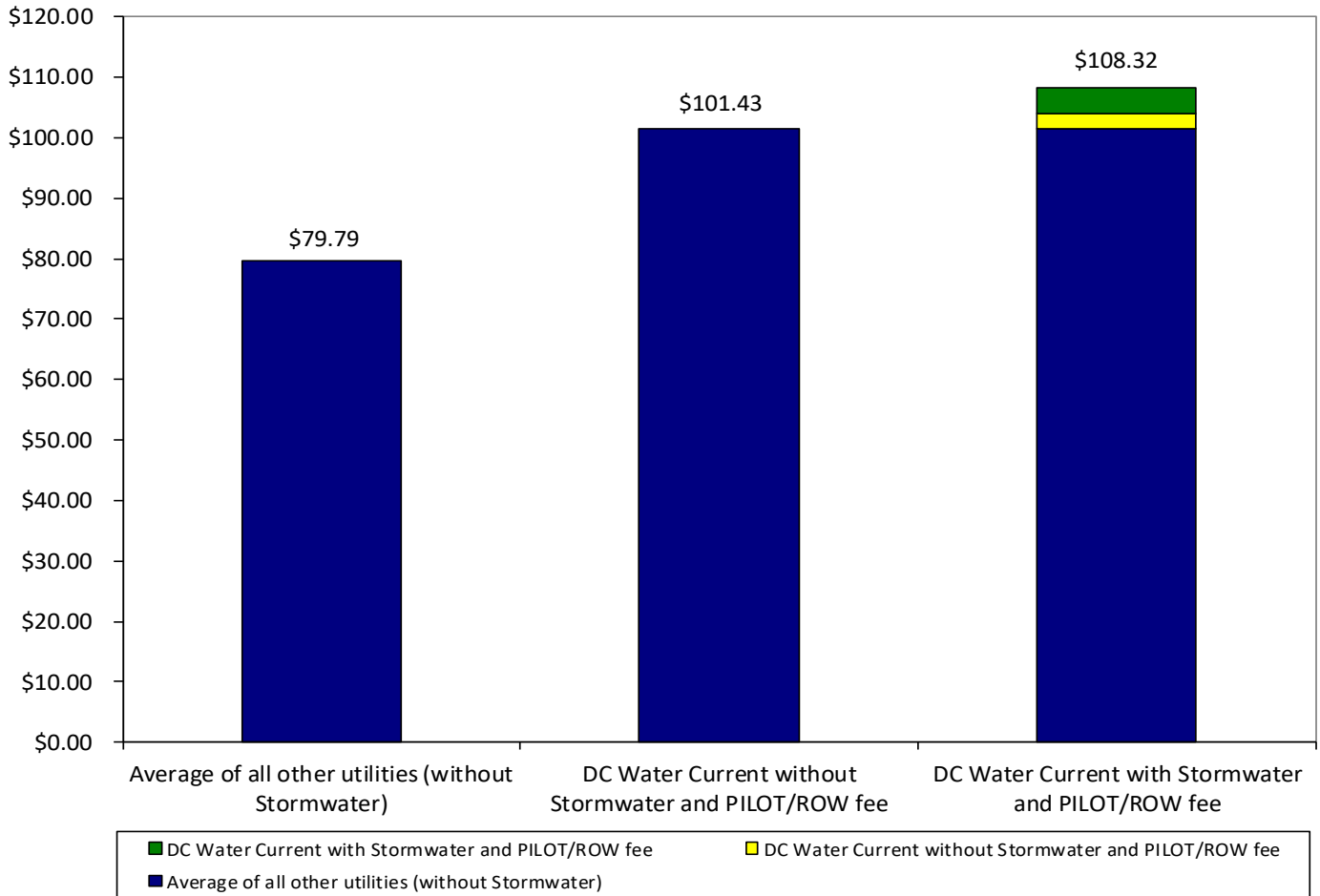
One method of assessing the affordability of residential rates is to calculate the portion of the Median Household Income that would be spent on typical water, wastewater, and stormwater bills and compare the results with the same calculation for other utilities. While no utilities are exactly alike, in the most recent rate survey conducted for DC Water in November 2018, 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:

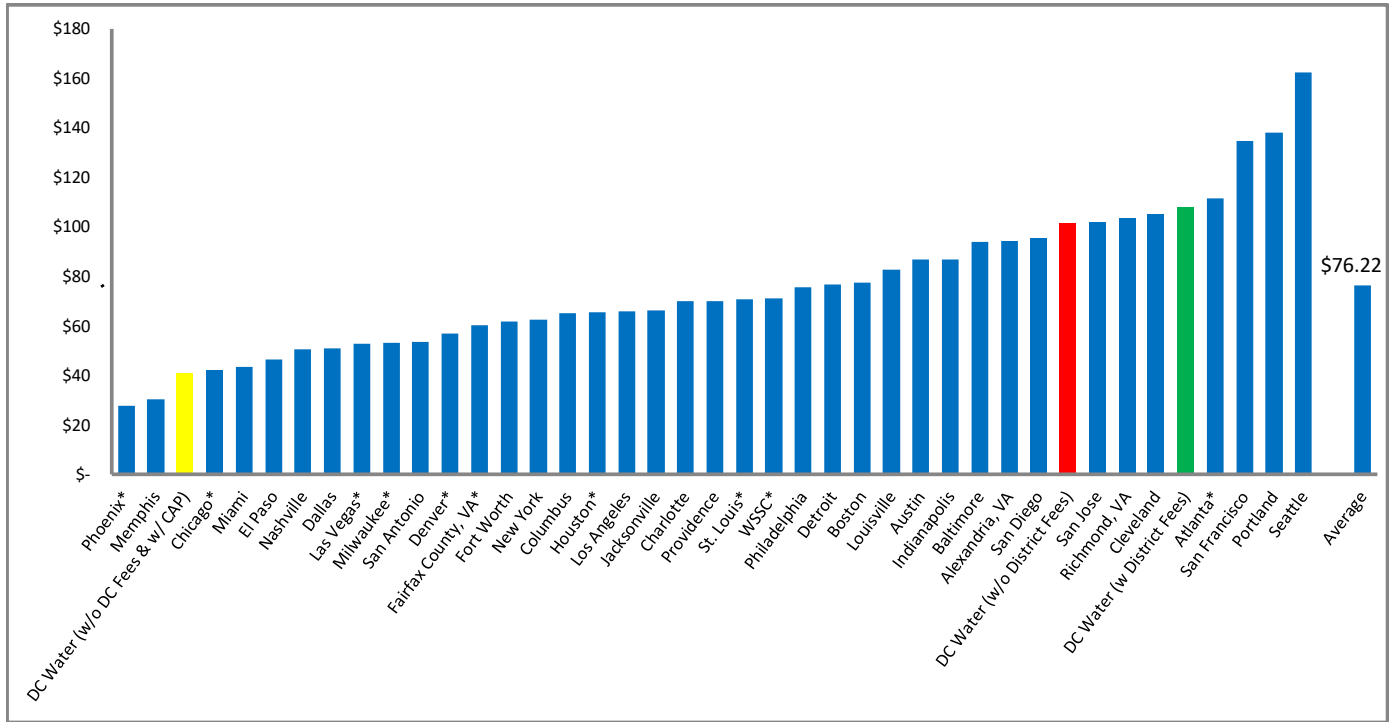
- Different patterns of water use (e.g., suburban jurisdictions can have different demands from urban centers)
- Revenues from taxes that reduce the revenues to be raised from water, sewer and stormwater rates (e.g., Arlington, Milwaukee, St. Louis, Atlanta, Chicago, etc.)
- Available undeveloped areas 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 2019 Monthly Residential Bill vs. Average Monthly Bill of Other Utilities in Effect Fall 2018



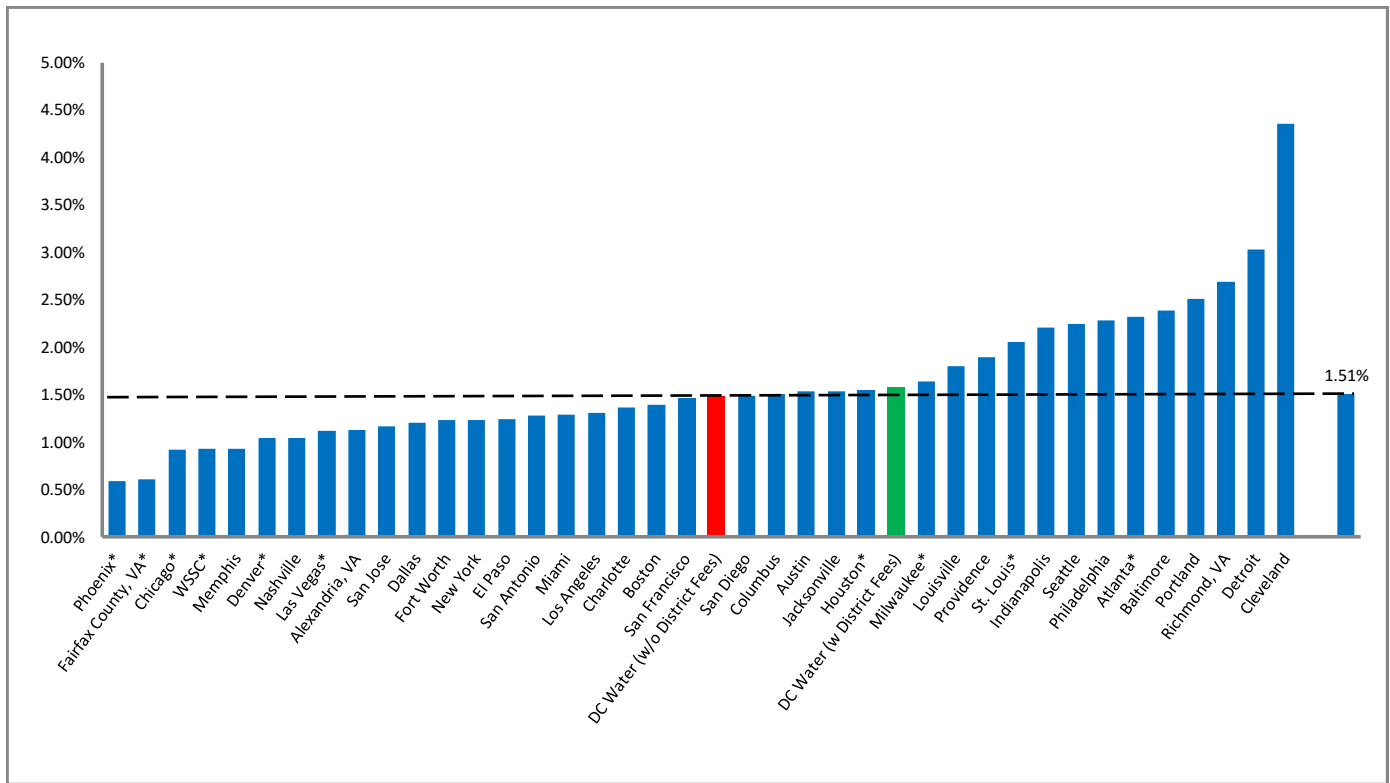
DC Water Retail Rates Compared to Other Large Utilities (Based on Rates in effect Fall 2018)



- (1) Assumes average residential consumption of 6.20 Ccf, or 4,638 gallons, per month. Ccf = hundred cubic feet, or 748 gallons
- (2) Reflects rates and fees in place as of November 1, 2018. The Authority's rate includes the PILOT/ROW fee totaling \$0.68 per Ccf (effective October 1, 2018) 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.

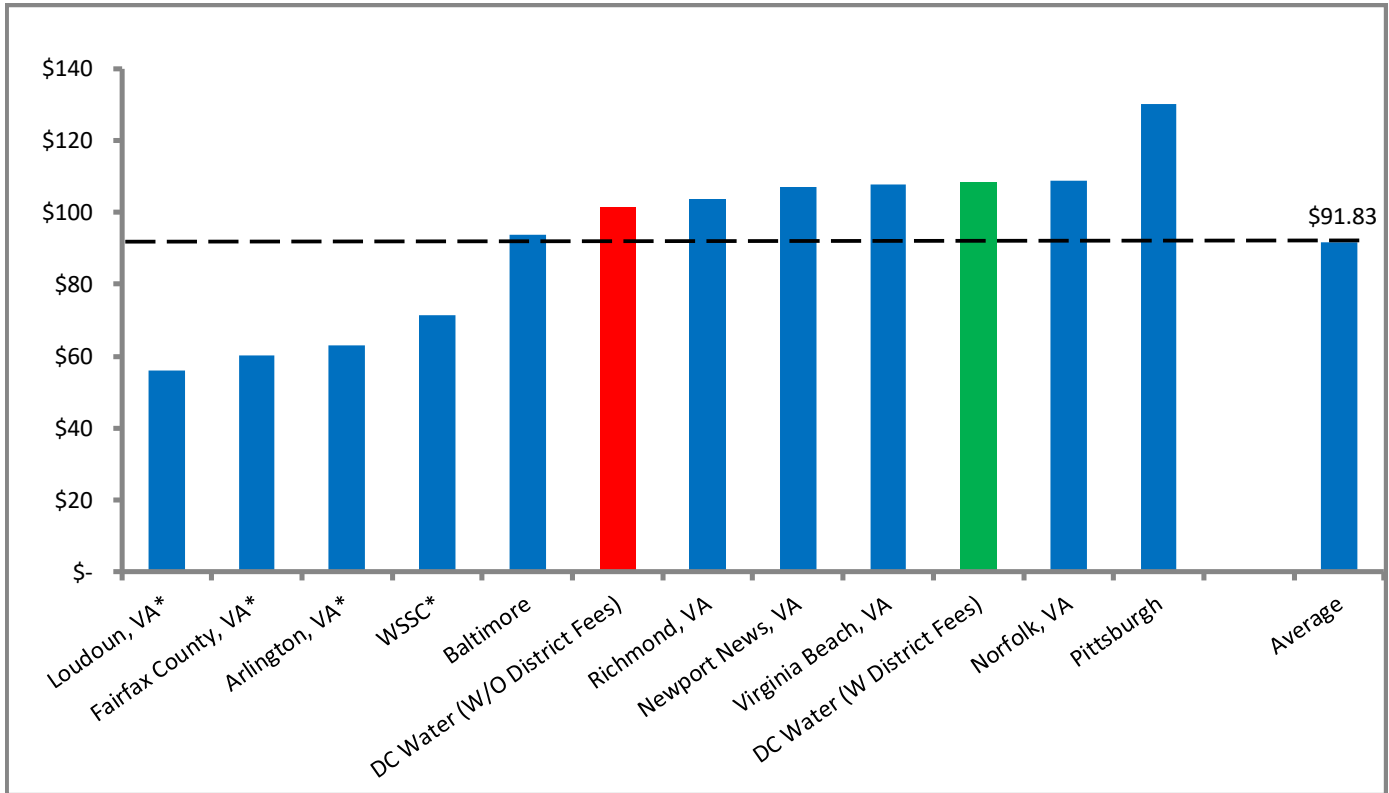
In the chart below, DC Water current charges rank at the median for bill comparison purposes for water and wastewater services compared to a select group of large, regional and CSO utilities, but well within US EPA guidance of 4 percent.

Single Family Residential (SFR) Monthly Bill as % of Median Household Income - Large National Utilities (Based on Rates in effect Fall 2018)



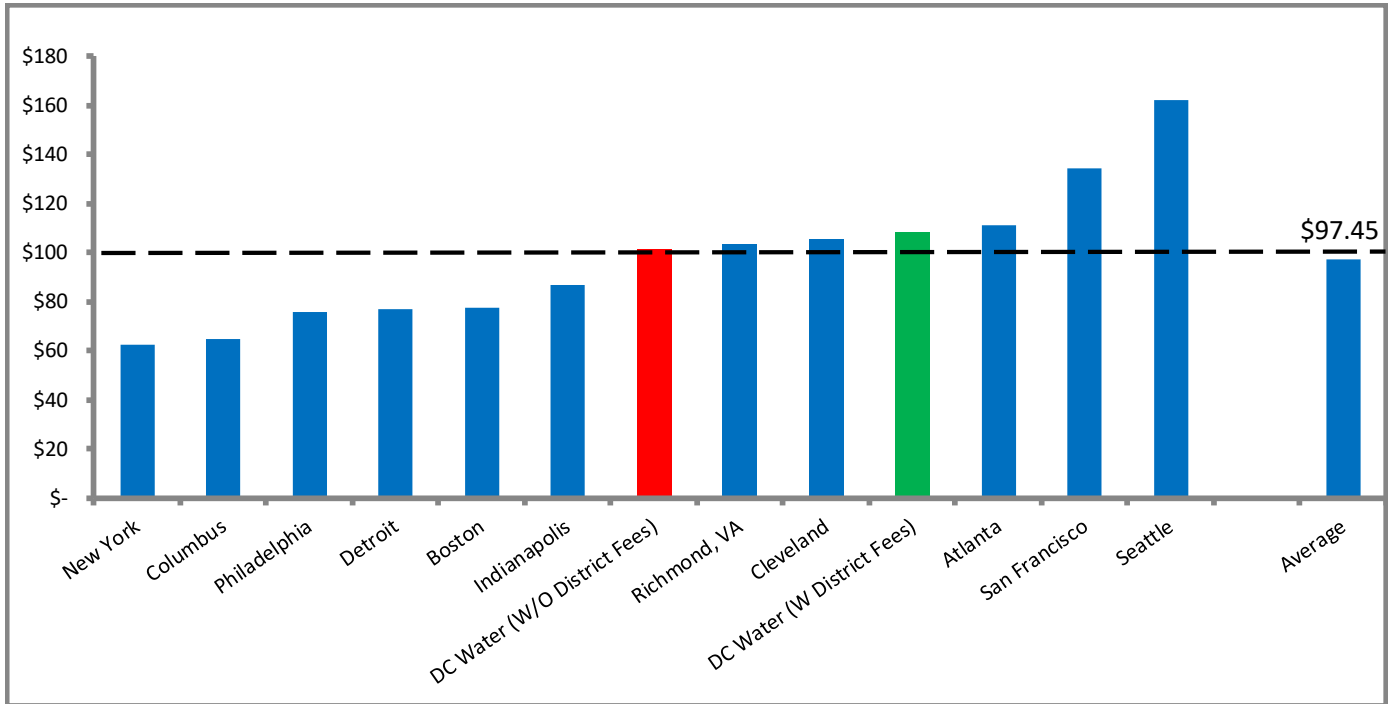
- 1) Assumes average residential consumption of 6.20 Ccf, or 4,638 gallons, per month. Ccf = hundred cubic feet, or 748 gallons
- 2) Reflects rates and fees in place as of November 1, 2018. The Authority's rate includes the PILOT/ROW fee totaling \$0.68 per Ccf (effective October 1, 2018) and the DOEE 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 2018)



- 1) Assumes average residential consumption of 6.20 Ccf, or 4,638 gallons, per month. Ccf = hundred cubic feet, or 748 gallons
- 2) Reflects rates and fees in place as of November 1, 2018. 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.

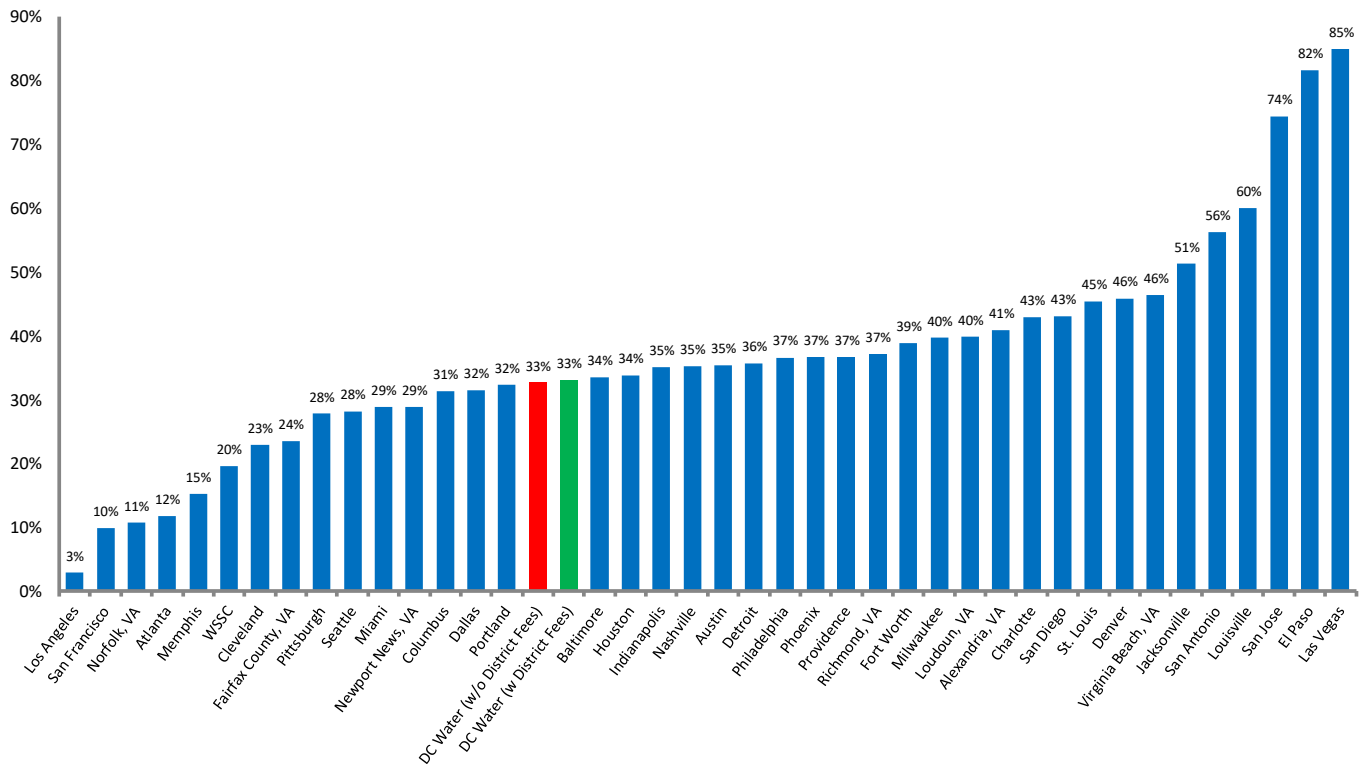
DC Water Compared to CSO Communities (Based on Rates in effect Fall 2018)



- 1) Assumes average residential consumption of 6.20 Ccf, or 4,638 gallons, per month. Ccf = hundred cubic feet, or 748 gallons.
- 2) Reflects rates and fees in place as of November 1, 2018. The Authority's rate includes the PILOT/ROW fee totaling \$0.68per Ccf (effective October 1, 2018) 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 2018)**



- 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, 2018. Whereas, charges for all cities reflect rate schedules in effect November 1, 2018
- 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