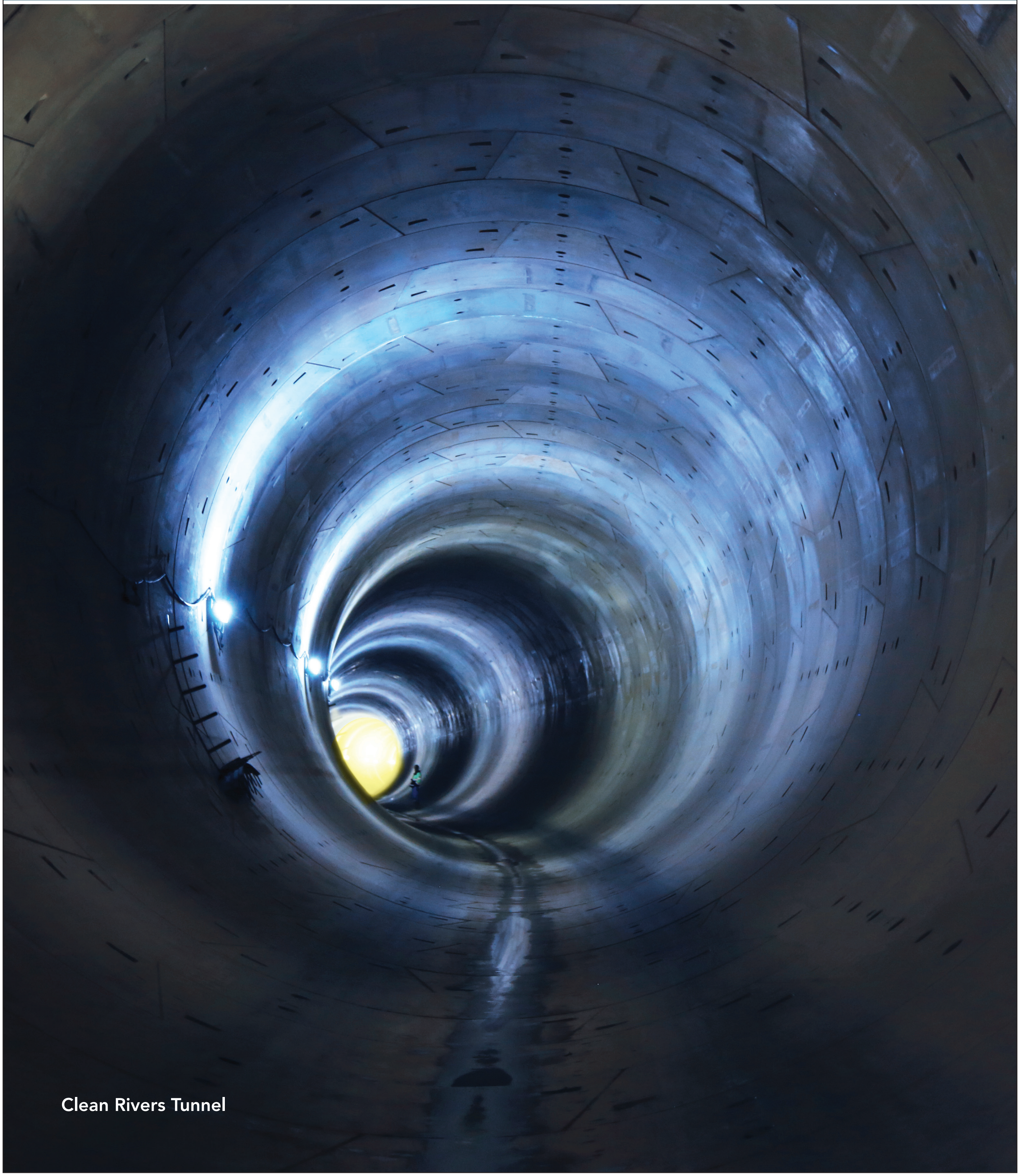
dc water is life®

Approved FY 2020 Budgets

Section III: FINANCIAL PLAN



Clean Rivers Tunnel

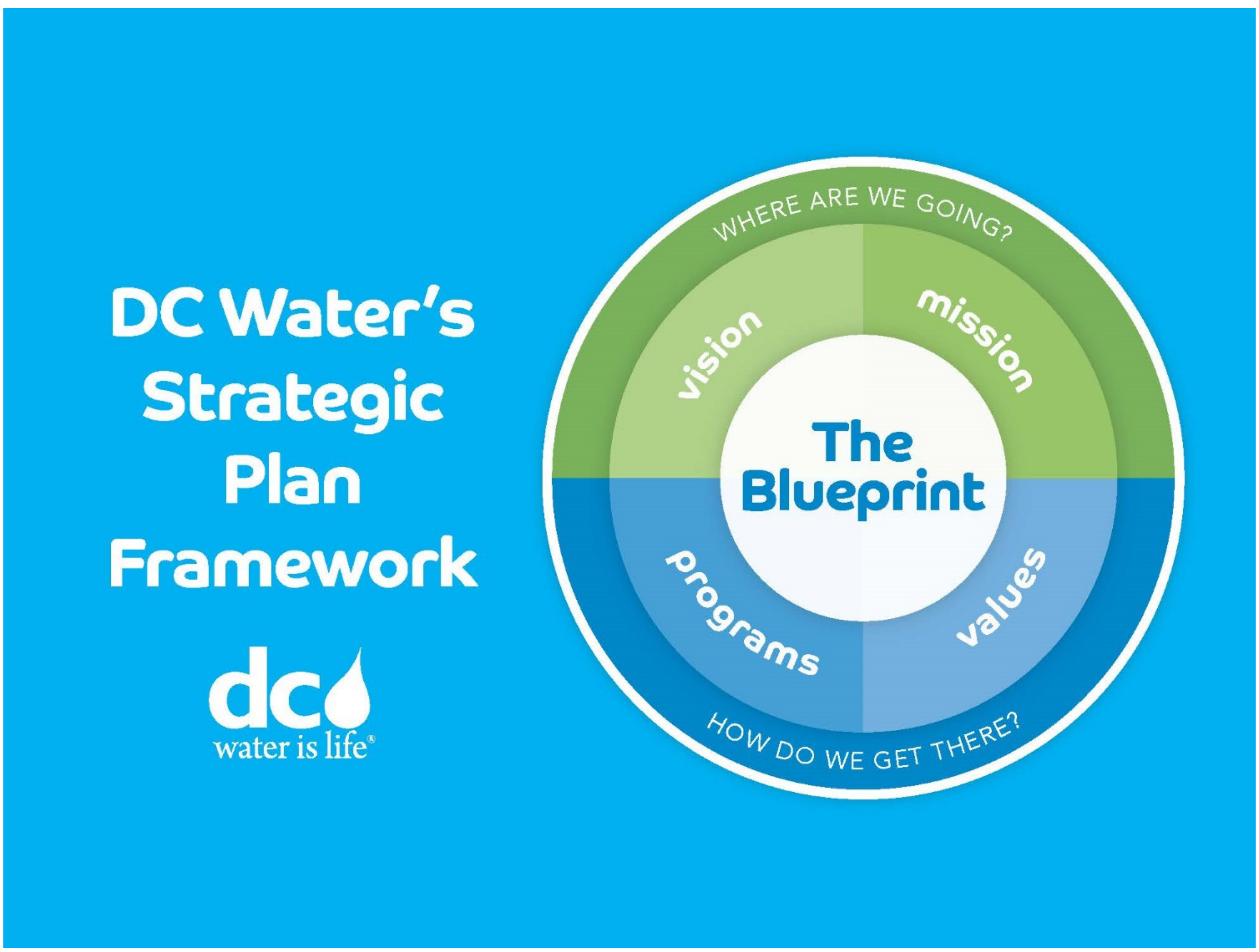
The Blueprint

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 would be made as the organization moves forward and circumstances change.

This plan contains the DC Water vision, mission statement, strategic programs and values. 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. During FY 2018, Standard and Poor's, Moody's and Fitch Group reaffirmed DC Water's ratings to AAA, Aa1 and AA, respectively. 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 2018, DC Water met or exceeded the goals set by Board policy and the FY 2018 – FY 2027 ten-year plan. This budget includes DC Water's nineteenth comprehensive ten-year financial plan, covering FY 2019 – FY 2028.

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 2019 – FY 2028 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 2018, 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 assessment
4. DC Water will maintain senior debt service coverage of 140 percent, in excess of DC Water's indenture requirement of 120 percent. Senior debt service coverage will be calculated in accordance with DC Water's indenture.
5. In general, DC Water will utilize operating cash in excess of the Board's reserve requirement and any other significant one-time cash infusions for capital financing or for repayment of higher cost debt.
6. DC Water will whenever possible use the least costly type of financing for capital projects, based on a careful evaluation of DC Water's capital and operating requirements and financial position for each year.
7. DC Water will attempt to match the period of debt repayment, in total, with the lives of the assets financed by any such debt.

Pay-As-You-Go Capital Financing Policy

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

Cash Management and Investment Policies

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

1. Safety
2. Liquidity
3. Return on investment

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

Debt Policy and Guidelines

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

- Enhancing the quality of decisions
- Documenting the decision-making process
- Identifying objectives clearly to facilitate staff implementation
- Demonstrating a commitment to Long-Term financial planning objectives that result in a sound financial position
- Enhancing the positive assessment of credit quality by the bond Rating Agencies 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 2018, DC Water met or exceeded the financial goals set out by the Board and the FY 2018 – FY 2027 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 2018 was at 494 percent**, while maintaining the Board's rate setting and financial policies. The senior debt service coverage is expected to increase to 614 percent by FY 2028 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 239 percent in FY 2018. DC Water is required to have 100 percent coverage of subordinate debt service. Combined debt service coverage was at 1.86 percent in FY 2018.
- DC Water has maintained its bond rating from Standard & Poor's (AAA), Moody's (Aa1), and Fitch Group (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 currently expires on May 15, 2020.
- **EXTENDABLE MUNICIPAL COMMERCIAL PAPER (EMCP)**: The addition of the EMCP program in the amount of $100 million provides diversification of the variable rate products available for interim financing needs. EMCP does not require a supporting bank letter of credit but relies on DC Water's liquidity to address any failed re-marketing of the EMCP. The initial placement is typically for 90 – 180 days and in the event of a failed re-marketing due to poor market conditions, DC Water has 3 – 6 months to address payment with a maximum number of days from the initial issuance of 270 days.

- **DC Water did not utilize rate stabilization fund (RSF) in FY 2018** and had not contributed to RSF. The Rate Stabilization Fund's ending balance for FY 2018 was $61.45 million.

- **DC Water continued its strong operating budget performance in FY 2018** – For FY 2018, actual cash receipt was higher than the revised budget by $10.7 million, or 1.7 percent. Actual operating expenditures were $8.7 million, or 1.5 percent lower than budget. Underspending in debt service was attributable to lower interest rates, refinancing and delayed issuances. Furthermore, due to favorable O&M position at 99.5% 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 $2.7 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 5.0 percent in FY 2018** to recover increased retail water and sewer revenue requirements of $11.9 million. No Rate Stabilization Fund (RSF) was utilized in FY 2018. If needed, the RSF helps to mitigate rate shock and reduces needed retail rate increases. In addition, there was a 2 percent increase in PILOT as per the PILOT MOU signed with the District on September 4, 2014. ROW fees increased by $0.01 to $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,** effective 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 second time that DC Water has adopted a multi-year rate proposal in FY 2018 covering the period FY 2019 and FY 2020 and will become effective from October 1, 2018.

  The benefits of multi-year rates include:
  - Greater revenue certainty
  - Increased budget discipline
  - Better alignment between revenues and expenditures

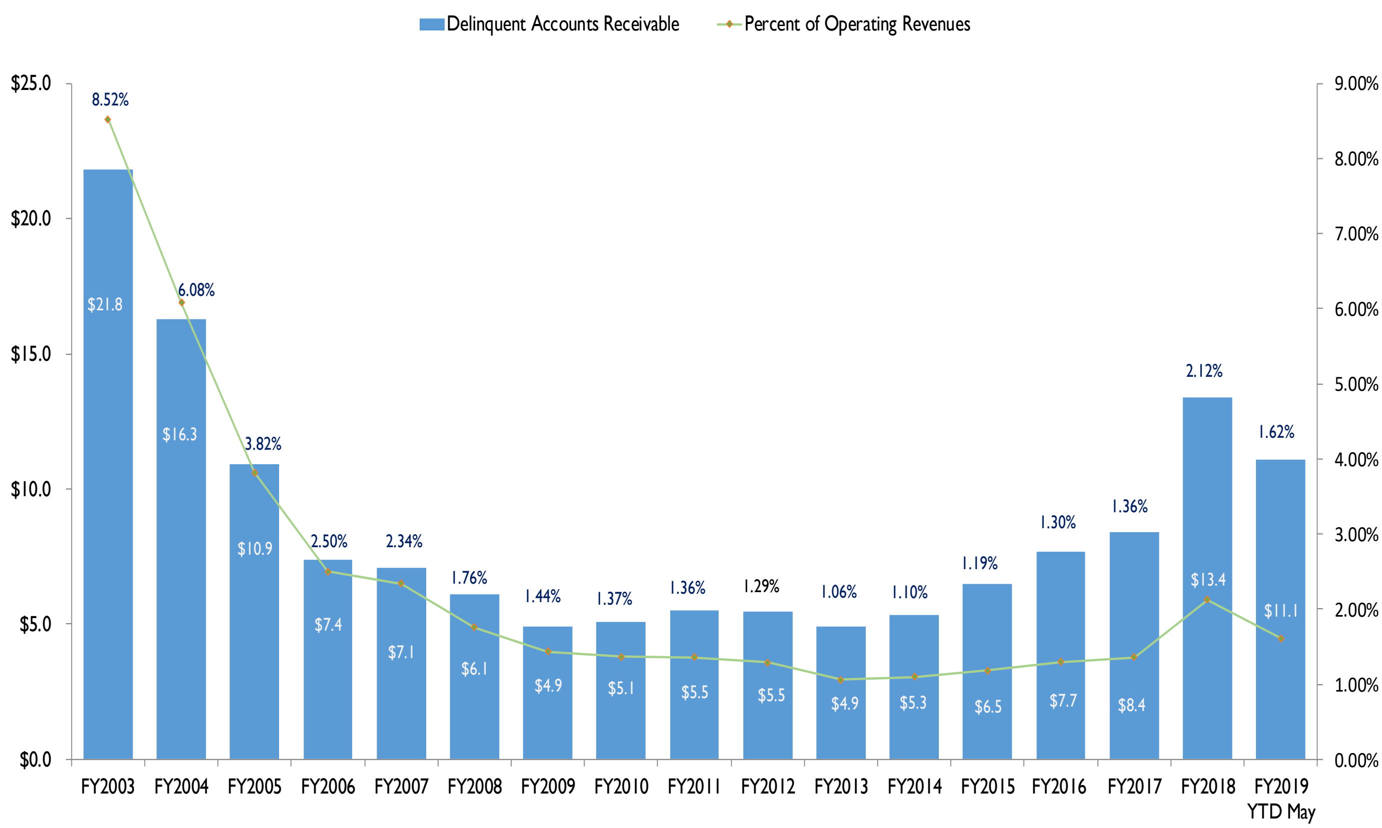
Based on meetings with the Stakeholder Alliance and discussions with other Customer groups, an 18% CRIAC shift to Sewer Volumetric rate was proposed for FY 2020 in order for the rates and charges to be fair and equitable for all customer classes. With the proposed shift, the overall household charges increase of 5.7% is the same as previously forecasted.

- For the eighteenth consecutive year, DC Water received the Government Finance Officers' Award for Distinguished Budget Presentation for its FY 2018 budget submission. DC Water also received its twenty first unqualified audit opinion for the fiscal year ended September 30, 2017 and received the twenty first GFOA Certificate of Achievement for Excellence in Financial Reporting.
- In FY 2018, DC Water successfully renewed all of the Authority's operations insurance policies at essentially the same terms at 1.1% higher costs than previous year. DC Water's coverage is generally comparable to expiring.
- DC Water completed its fourteenth year of its rolling owner-controlled insurance program (ROCIP), tenth year of ROCIP II, seventh 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 contractors and significant cost savings. At the end of FY 2018, 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 25 projects and 375 contractors are currently enrolled in the ROCIP IV program. Preliminary avoided costs (aka savings) are estimated in the range of $4 to $5 million for ROCIP I; approximately $8 million for ROCIP II, $12 million for ROCIP III and $15 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.
- DC Water revenue collection rates rival high levels of performance achieved by investor-owned water utilities. Delinquent accounts receivable represents less than 2 percent of Total Operating Cash Receipts by:
  - Advanced Metering Infrastructure (AMI) – In 2017, DC Water began upgrading 90,000 residential customers and some smaller multi-unit meters to its new AMI platform
  - Defined as the Water Meter Rehabilitation Program, the first replacement was completed in 2nd quarter FY 2017 and by the contract close date, DC Water's contractor completed 84,334 meter/MTU installations, which increased the overall AMR transmission rate to 90.1%. The program encouraged cooperation with multiple departments to support the contractor in addressing both the known and challenging installations. Key achievements for 2018 include all costs remained within the approved budget; the contractor exceeded the goal of 60% or more inside appointments and maintained a low amount of potential risk management claims.
- 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 sets 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
- Getting Executive and Board support for credit policies and developing assistance programs such as the customer assistance program (CAP) and SPLASH program for low income customers. The CAP discount program administered by DOEE provided discount as of September 30, 2018 to 4,324 customers representing $1,188,574.
- 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 2018, DC Water received $104,361 in contributions and assisted 212 customers as of September 2018. CAP and SPLASH together provide approximately $1,292,935 per year in assistance to approximately 4,536 low income households to help make their bills more affordable.
- Continuous focus is placed on the top 75 accounts with the largest balances by making outbound calls to negotiate payments and assess risk

Delinquent Accounts Receivable
($ in Millions)



- 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.
- DC Water's delinquent accounts receivable for FY 2019, is significantly below year-end totals for FY 2018. The FY 2019 amount is current 90 day delinquent accounts over projected FY 2019 operating revenues.

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% renewal and replacement program for water service lines. It is anticipated that the new WSRF will generate $40 million per year. DC Water's low income CAP customers would receive a 100% credit for this fee.

4. System Availability Fee (SAF) – DC Water to propose a new System Availability Fee (SAF). A one-time fee assessed to a property owner of any premises, building or structure to recover the cost of system capacity put in place to serve all metered water service and sanitary sewer connections and renovation or redevelopment projects that require an upsized meter service connection to the District's potable water system. The fee is assessed based on the peak water demand, excluding fire demand, for new meter water service connection and renovation or redevelopment projects that increase the peak water demand and associated SAF meter size for the property.
5. Based on the 2015 Cost of Service Study, DC Water has adopted several changes to its existing retail rate structure starting in Fiscal Year 2016. These changes are designed to better align the Authority's revenues and expenditures by establishing customer class-based volumetric water rates based upon peaking factors, to create a more progressive rate structure for its residential customers by establishing lifeline water rates which discount core consumption, and to fund the Authority's water main replacement program by establishing a monthly, fixed Water System Replacement Fee.

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

- Every three years DC Water conducts 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% 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

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 water infrastructure. It is anticipated that the 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% 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; amended the Customer Classifications to clarify the definitions for Residential, Multi-family and Non-Residential customers to include cooperative housing associations and other clarifications; and amended 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 – 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.

Fire Services Protection Fee

DC Water has assessed a fire protection fee to the District of Columbia since April 1, 2000. This fee is intended to recover costs incurred by DC Water for fire protection service provided by the Water System of DC Water. The purpose of the 2018 cost of service study was to assess the appropriate level of cost recovery required from the District government for this service.

Fire protection service differs from other services offered by water utilities because it is primarily a standby service that is required to be available when the need exists, i.e., as demanded. The development and maintenance of the supply, treatment, pumping, storage and distribution capacity for fire protection service requires capital investments in facilities that are designed larger than would otherwise be required to be able to accommodate fire demand and annual operation and maintenance ("O&M") expenses to ensure that the assets are appropriately maintained and provide service as needed.

As per the 2018 cost of service study, the Fire Protection Service Fee projected for the years FY 2019 to FY 2022 increased from $10.796 million to $12.527 million per year.

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 determines 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 would be zero. Properties under redevelopment would not receive a credit for accounts that are inactive for more than 12 months.

In FY 2018, DC Water 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 included 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) revise 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) add procedures and requirements to receive credits for Affordable Housing Units (AHU) development and redevelopment; 4) clarify the requirements for projects submitted prior to the effective date of June 1, 2018 and approved by June 1, 2019; 5) add formulas to clarify how the SAF is calculated with the SAF credit, AHU credit and Net AHU credit; 6) clarify 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

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

Compliant	Description	Legal covenant	Performance Target	FY 2018 Actual	FY 2019 Revised	FY 2020 Approved
v	Senior Debt Service Coverage	120%	140%	494%	425%	438%
v	Operating Cash Reserves	N/A	$125.5 million	166.80 million	$165 million	$180 million
v	Short Term Investment Return Benchmark Merrill Lynch 3-Month Treasury Index	N/A	25 basis points	167 basis points	238 basis points	219 basis points
v	Long Term Investment Return Benchmark Merrill Lynch 1-3 Year Treasury Index	N/A	50 basis points	230 basis points	248 basis points	242 basis points
v	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	
v	Rate Stabilization Fund (RSF)	N/A	Help to avoid spikes in rate increases for retail customers	Zero Utilization of the RSF, leaving a balance of $61.45 million.	Projected at $55.45 million at the end of FY 2019	Projected at $55.45 million at the end of FY 2020

The Approved FY 2019 - FY 2028 financial plan includes the resources necessary to accomplish critical financial and operational goals over the coming years, as summarized below

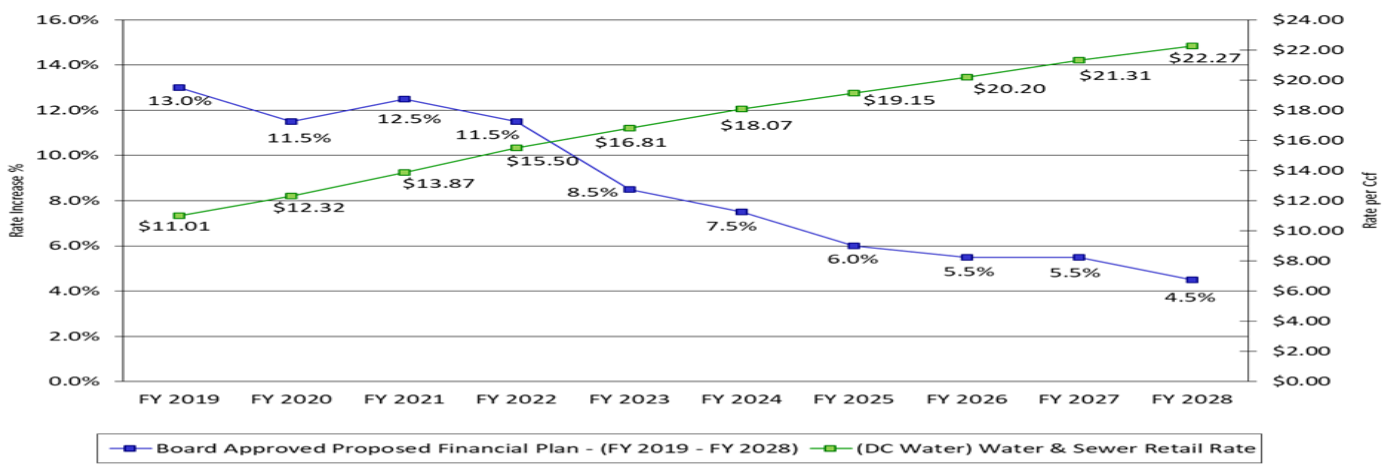
- Continue adherence to the Board's financial, investment, rate-setting and long-term planning policies
- Continue implementation of the ten-year $5.0 billion capital improvement program
- Includes disbursements of $1.3 billion over the ten-year planning period for Clean Rivers Project (CSO Long-Term 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 3.1 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 2019 will be at $16.60 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 2020 to FY 2028 range from 1.68 to 1.89. 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% and 31% of the total operating revenue in FY 2019 and FY 2020, respectively.
  - Interest on Variable debt assumed to be 2.50 percent in FY 2019 and FY 2020
  - Interest on Fixed debt assumed to be 5.5 percent in FY 2019 and 6.0 percent in FY 2020
  - Utilization of the Commercial Paper program / Extendable Municipal Commercial Paper (EMCP) is assumed for interim financing for bond issuance, capital equipment and Washington Aqueduct

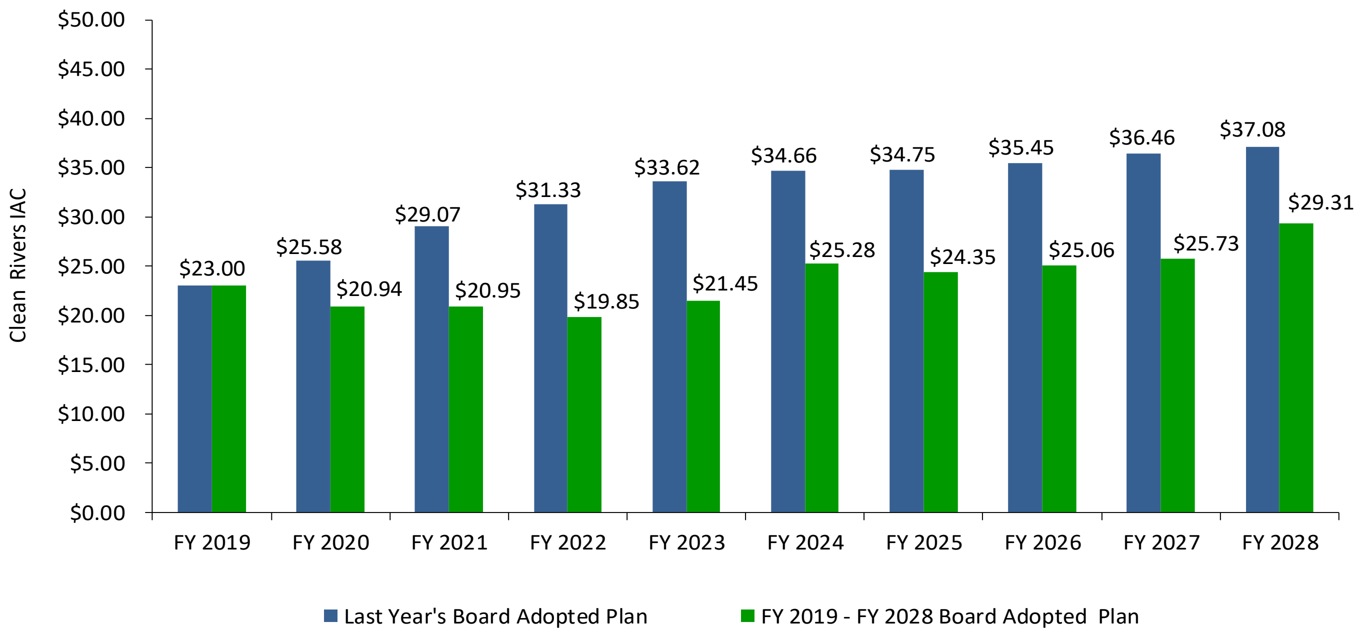
Due to these ongoing and new initiatives, from FY 2019 – FY 2028 DC Water's water and sewer volumetric retail rates are projected to increase by $0.96 to $1.63 per 100 cubic feet as shown in the chart below. Cumulative rate increases would total 86.0 percent over the ten-year period compared to 50.0 percent projected in last year's ten-year plan (FY 2019 – FY 2028).

Projected Retail Rate Increases



Rates shown above reflect weighted water and sewer rates for Residential customers' category. The proposed retail water and sewer combined rate for FY 2019 is $11.01 per Ccf and $12.32 per Ccf for FY 2020. In addition, the approved increase in the combined Right-of-Way and PILOT Fees is $0.01 per Ccf, {$0.01 per 1,000 gallons}, in FY 2019 and is $0.02 per Ccf, {$0.02 per 1,000 gallons} in FY 2020 to recover the full amount for services charged to DC Water by the District. There is no increase in FY 2019 Right-of-Way Fee, which remains same at $0.18 per Ccf ($0.24 per 1,000 gallons). The proposed monthly Clean Rivers Project CRIAC charges for FY 2019 and FY 2020 are $23.00 and $20.94 respectively per ERU (Equivalent Residential Unit); decrease of $2.18 over the FY 2018 charge and decrease of $2.06 over the FY 2019 charge respectively.

Projected Monthly Clean Rivers Impervious Surface Area Charge Increases
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 Clean Rivers Project totaling $2.8 billion federally mandated Clean Rivers Project (CSO LTCP), and the nine-minimum control program.
- The annual Clean Rivers Project IAC costs for the average Tier 2 residential customer (700 – 2,000 sq. ft. of Impervious Area) is projected to decrease from $23.00 per month in FY 2019 to $29.31 per month 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.

The proposed rate and fee adjustments included in the FY 2019 – FY 2028 financial plan are driven by the following trends and initiatives:

- Assumed retail water consumption decline of 1 percent in FY 2019 over FY 2018 projection and conservation of 1 percent in FY 2020 and onwards.
- Increasing debt service expenditures, driven by DC Water's $5.0 billion capital improvement program (cash disbursements basis), which increases on average by 5.9 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 3.1 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.

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, previous paving, green roofs, bio retention practices and stormwater will avail this discount. This budget proposes an increase from 4% to 20% for stormwater best management practices.

For FY 2018, $1,188,574 in discount benefits was provided to 4,324 CAP customers. Our SPLASH program customers donated an additional $104,361 through their water bills for the benefit of those customers who needed additional help.

$ in thousands

The Revised FY 2019 operating receipts projection totals $665.7 million, an increase of $16.2 million above the FY 2019 Approved budget. The Proposed FY 2020 operating receipts total $694.0 million, an increase of $28.3 million over the Revised FY 2019 receipts.

Comparative Operating Receipts
FY 2019 – FY 2020

	FY 2019 Approved	FY 2019 Revised	Increase/ (Decrease)	Percent Change	FY 2020 Proposed	Increase/ (Decrease)	Percent Change
Residential	$ 117,377	$118,531	1,154	1.0%	$124,353	5,822	4.9%
Commercial	163,067	164,542	1,475	0.9%	173,826	9,284	5.6%
Multi-family	93,208	93,137	(71)	-0.1%	100,884	7,747	8.3%
Sub-Total Residential, Commercial and Multi-family	373,652	$376,210	2,558	0.7%	$399,063	22,853	6.1%
Federal Government(1)	67,054	67,054	(0)	0.0%	71,887	4,834	7.2%
District Government	17,362	18,009	647	3.7%	17,585	(424)	-2.4%
D.C. Housing Authority	9,719	9,860	141	1.5%	10,525	664	6.7%
Transfer from Rate Stabilization Fund	-	6,000	6,000	0.0%	-	-	0.0%
Water System Replacement Fee (WSRF)	39,717	39,717	-	0.0%	39,717	-	0.0%
Metering Fee	10,776	10,776	-	0.0%	10,776	-	0.0%
Total Retail	**518,280**	**527,626**	**9,346**	**1.8%**	**549,553**	**21,927**	**4.2%**
IMA Wastewater Charges	70,371	72,735	2,364	3.4%	72,066	(669)	-0.9%
Potomac Interceptor Wastewater Charges	8,866	10,257	1,391	15.7%	10,473	216	2.1%
Total Wholesale	**79,237**	**82,992**	**3,755**	**4.7%**	**82,539**	**(453)**	**-0.5%**
District Stormwater Revenue (2)	1,000	1,000	-	-	1,000	-	0.0%
Misc. Rev. (e.g. water tap installation, fire hydrant usage, etc.)	22,235	25,317	3,082	13.9%	28,840	3,523	13.9%
Washington Aqueduct Debt Service Revenue for Falls Church & Arlington	193	193	-	-	193	-	0.0%
Interest Income (including interest on Bond Debt Service Reserve Fund)	2,971	2,971	-	0.0%	3,966	995	33.5%
System Availablibility Fee (SAF)	3,850	3,850	-	0.0%	5,775	1,925	50.0%
Transfer from DC PILOT/ROW Fund	-	-	-	0.0%	-	-	0.0%
DC Contribution of 50% PILOT Fund to DCW	-	-	-	0.0%	-	-	0.0%
Right of Way	5,100	5,100	-	0.0%	5,100	-	0.0%
PILOT Fee	16,601	16,601	-	0.0%	17,013	412	2.5%
Total Other	**51,950**	**55,032**	**3,082**	**5.9%**	**61,887**	**6,855**	**12.5%**
Total Operating Cash Receipts	**$ 649,467**	**$ 665,650**	**$ 16,183**	**2.5%**	**$ 693,979**	**$ 28,330**	**4.3%**

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.

- **Residential, Commercial and Multi-Family Receipts** - are projected at $376.2 million, which is approximately $2.5 million higher than the Board approved FY 2019 level, primarily due to slightly higher CRIAC projection.
- **Federal revenues** - are projected to remain the same at $67.1 million reflecting the Congressional approval level for the FY 2019 federal bill.
- **Municipal & D.C. Housing Authority Receipts** - are projected to increase by $0.8 million (or 2.9 percent) primarily due to increase in CRIAC projection for these categories.
- **Rate Stabilization Fund Utilization** – The 2019 approved budget assumed no utilization of RSF. However, the DC Water Board approved a $6.0 million transfer from the RSF in order to fund the CAP2 program, which resulted in a $6.0 million increase in the revised budget. The ten-year plan and near-term revenue projections assume no utilization of the RSF in from FY 2020 to FY 2028. Prior years' plans assumed the use of these funds, which is necessary as DC Water reaches its peak years of spending in the CIP. Utilization of RSF monies allows DC Water to implement future rate increases in a reliable and predictable manner while still meeting Board and indenture policies on cash reserves and debt service coverage.
- **Customer Metering Fee** - This fee recovers the costs associated with installing, operating, maintaining and replacing meters, and is charged to all retail customers (including federal and municipal customers). The fee varies based on meter size, with monthly fees ranging from $3.86 for a 5/8-inch meter (typical size of a residential customer meter) to $349.06 for 16" meters (typically used for large commercial customers). No revenue change is anticipated in this category.
- **Wholesale Receipts** – Wholesale revenues in FY 2019 revised budget are projected to increase by $3.8 million as compared to FY 2019 approved budget due to the new Multi-Jurisdictional User Facility(MJUF) operations and maintenance costs and revised operations and maintenance expense projection for FY2019.
- **Stormwater** - DC Water's FY 2019 receipts include $1.0 million from the Department of Energy and Environment (DOEE), formerly DDOE, which will be used to fund DC Water's services provided on behalf of the District's stormwater permit compliance activities including the billing and collection through DC Water invoices of fees established by DOEE. The FY 2019 – FY 2028 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.
- **Other revenues** - In FY 2019, other revenues are projected to increase by $3.1 million, or 5.9 percent, mainly due to increase in the DC Fire Protection Fee and IMA Indirect Cost Reimbursement for Capital Projects.
- **Right-of-Way and Payment-In-Lieu of Taxes (PILOT) Pass-Through Fees** - Similar to other Washington area utilities, DC Water has implemented fees that pass through the costs of the District's Right-of-Way fee (ROW) and Payment In Lieu of Taxes (PILOT) as separate line items on its bill. In FY 2019 revised budget as compared to FY 2019 approved budget, PILOT is projected to remain the same at $16.6 million. ROW fee also remains same at $5.1 million.

Other major assumptions underlying the revenue projections contained in the FY 2019 – FY 2028 financial plan include:

- For FY 2019, 1.0 percent reduction in water sales is assumed over FY 2018 projection for all customer categories, based on historical trends in consumption levels. For FY 2020 and onwards, 1.0 percent conservation is assumed for all categories.
- 3.0 percent average revenue increase between FY 2021 and FY 2028 for wholesale customers, in line with operating and maintenance expense increases for joint use facilities. In FY 2020, however, the wholesale revenues are projected to decrease by $0.5 million or 0.5 percent due to lower projected flows for FY 2020.
- Based on the current interest rate environment, interest projections are conservatively assumed at 2.00 percent earnings rate in FY 2020 and 3.0 percent in FY 2021 and 4.0 percent FY 2022 on operating funds. Interest rates for FY 2023 and onwards are assumed at 4.0 percent.
- The majority of other non-operating revenues, totaling $35.8 million in FY 2020 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 - $4.6 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) - $17.5 million.

The Proposed FY 2020 receipts projection totals $694.0 million, approximately $28.3 million, or 4.3 percent higher than the revised FY 2019 projections. This increase is due primarily to:

- **Residential, Commercial & Multi-Family** - FY 2020 projections reflect an increase of $22.9 million, or 6.1 percent from FY 2019 revised due primarily to proposed retail rate increases of 11.5 percent (water and sewer volumetric rates) and decrease of $2.06 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 2018 projections has been assumed due to conservation in FY 2019
- **Federal Revenues** - Approved FY 2020 federal revenues are projected to increase by $4.8 million or 7.2 percent over revised FY 2019 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 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 2018 estimated vs. actual consumption and rate increases will be included in the FY 2021 billing, prepared in April 2019). 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 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.
- **Municipal & D.C. Housing Authority Receipts** - are projected to increase $0.2 million (or 0.9 percent), mainly due to proposed retail rate increases of 11.5 percent and decrease of $2.06 monthly ERU fee for the Clean Rivers IAC.
- **The Rate Stabilization Fund** - is not utilized in FY 2020. There will be a balance of $55.45 million by the end of FY 2028.
- **Water System Replacement Fee** - Proposed fixed monthly fee set to recover the costs of 1 percent renewal and replacement program for water service lines generating approximately $39.7 million per year.
- **Customer Metering Fee** - This fee recovers the costs associated with installing, operating, maintaining and replacing meters, and is charged to all retail customers (including federal and municipal customers). The fee varies based on meter size, with monthly fees ranging from $3.86 for a 5/8 inch meter (typical size of a residential customer meter) to $349.06 for 16" meters (typically used for large commercial customers). No revenue change is anticipated in this category.
- **Wholesale Receipts** - DC Water's wholesale customers are responsible for a proportionate share of operating and maintenance expenses (associated only with shared facilities primarily at Blue Plains) based on their respective share of wastewater volume discharged. In addition, each user is responsible for a proportionate share of related indirect costs. In FY 2020 wholesale revenues are projected to decrease by $0.5 million or 0.5 percent to $82.5 million due to lower projected flows for FY 2020.

- **Stormwater** - As noted earlier, the proposed FY 2020 receipts for this category include $1.0 million each year from the Department of Energy and Environment (DOEE).
- FY 2020 **PILOT Fee** increase by 2 percent over prior year as per new PILOT MOU signed with the District Government on September 4, 2014.

($ in thousands)

DC Water
FY 2019 – FY 2028 Financial Plan

OPERATING	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
*Retail**	$ 543,327	$ 571,666	$ 618,152	$ 659,845	$ 704,304	$ 756,859	$ 780,566	$ 810,514	$ 841,471	$ 879,686
*Wholesale**	82,992	82,539	85,015	87,566	90,193	92,898	95,685	98,556	101,513	104,558
Other	33,331	39,774	46,805	51,271	53,758	53,445	54,361	57,081	57,391	58,349
RSF	6,000	-	-	-	-	-	-	-		
Operating Receipts (1)	$ 665,650	$ 693,979	$ 749,972	$ 798,682	$ 848,255	$ 903,202	$ 930,612	$ 966,151	$ 1,000,375	$ 1,042,593
Operating Expenses	(338,499)	(347,881)	(358,264)	(368,967)	(379,998)	(391,369)	(403,089)	(415,169)	(427,622)	(440,458)
Debt Service	(198,754)	(215,340)	(235,421)	(254,235)	(272,838)	(285,693)	(295,505)	(306,629)	(318,969)	(331,609)
Cash Financed Capital Improvement	$ (26,999)	$ (28,556)	$ (30,907)	$ (39,591)	$ (49,301)	$ (52,980)	$ (62,445)	$ (72,946)	$ (75,732)	$ (79,172)
Net Revenues After Debt Service	$ 101,398	$ 102,202	$ 125,380	$ 135,889	$ 146,118	$ 173,160	$ 169,573	$ 171,407	$ 178,052	$ 191,354
Operating Reserve-Beg Balance	166,796	165,000	180,000	185,000	194,000	201,000	205,000	215,000	220,000	230,000
Other Misc (Disbursements)/Receipts										
Wholesale/Federal True Up	(16,803)	(2,131)	-	-	-	-	-	-	-	-
Project Billing Refunds	(11,000)	(4,000)	(4,000)	-	-	-	-	-		
Transfers To RSF	-	-	-	-	-	-	-	-	-	-
Pay-Go Financing	(75,391)	(81,071)	(116,380)	(126,890)	(139,118)	(169,161)	(159,573)	(166,407)	(168,052)	(181,356)
Operating Reserve - Ending Balance	$ 165,000	$ 180,000	$ 185,000	$ 194,000	$ 201,000	$ 205,000	$ 215,000	$ 220,000	$ 230,000	$ 240,000
Rate Stabilization Fund Balance RSF (2)	$ (55,450)	$ (55,450)	$ (55,450)	$ (55,450)	$ (55,450)	$ (55,450)	$ (55,450)	$ (55,450)	$ (55,450)	$ (55,450)
Senior Debt Service Coverage	425%	438%	461%	508%	505%	593%	611%	598%	585%	614%
Combined Debt Service Coverage	162%	168%	174%	178%	180%	187%	187%	188%	187%	189%
Actual/Projected Water/Sewer Rate Increases	13.0%	11.5%	12.5%	11.5%	8.5%	7.5%	6.0%	5.5%	5.5%	4.5%
*Operating Receipts $ Increase/Decrease										
Retail	23,697	28,339	46,486	41,693	44,459	52,555	23,707	29,948	30,957	38,215
Wholesale	1,970	(453)	2,476	2,551	2,627	2,705	2,787	2,871	2,957	3,045
*Operating Receipts % Increase/Decrease										
Retail	4.6%	5.2%	8.1%	6.7%	6.7%	7.5%	3.1%	3.8%	3.8%	4.5%
Wholesale	2.4%	-0.5%	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 2020 planned transfers of $0.0 million to Rate Stabilization Fund will maintain the total fund balance at $55.45 million

$ 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 $5.0 billion capital improvement program, growing at an average annual rate of 8.2 percent. All other operating expenses are projected to grow at an average annual rate of 4 percent. The following chart provides detailed comparison of the FY 2019 and FY 2020 operating budgets.

Comparative Operating Budgets
FY 2019 – FY 2020

	FY 2019 Approved	FY 2020 Approved	Increase/(Decrease) $	%
Total Personnel Services	$ 162,620	$ 170,680	$ 8,060	5.0%
Non-Personnel Services				
Contactual Services	76,618	77,007	389	0.5%
Biosolids	5,061	4,879	(182)	-3.6%
Water Purchase	30,520	34,929	4,409	14.4%
Supplies	8,524	7,977	(547)	-6.4%
Chemicals	23,558	25,181	1,623	6.9%
Utilities	26,915	26,953	38	0.1%
Small Equipment	1,240	989	(251)	-20.2%
Subtotal Operations & Maintenance	**335,055**	**348,594**	**13,539**	**4.0%**
Debt Service	199,025	215,340	16,315	8.2%
Cash Financed Capital Improvements	26,999	28,556	1,557	5.8%
PILOT	16,602	16,934	332	2.0%
Right of Way Fee	5,100	5,100	0	0.0%
Subtotal Debt Service, CFCI & PILOT/ROW	247,726	265,930	18,204	7.3%
TOTAL OPERATING EXPENDITURES	**$ 582,781**	**$ 614,524**	**$ 31,743**	**5.4%**
Less Personnel Services Charged to Capital Projects	(18,259)	(22,748)	(4,489)	24.6%
Total Net Operating Expenditures	**$ 564,522**	**$ 591,776**	**$ 27,254**	**4.8%**

The approved FY 2020 budget total of $614.5 million is approximately 5.4 percent higher than the approved FY 2019 budget. This 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 2020 operations and maintenance budget net increase of 4.0 percent is primarily due to increase in personnel services, various maintenance and professional services, and offset by projected decreases in biosolids hauling costs, and reduced 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 $8.1 million or 5.0 percent above the approved FY 2019 budget. The increase is primarily attributable to salary adjustments, combined with 12 additional headcount to provide in-house support of various programs, higher overtime, and increase in benefits for retirement, due to aging workforce. This is offset in part by the elimination of 63 positions.

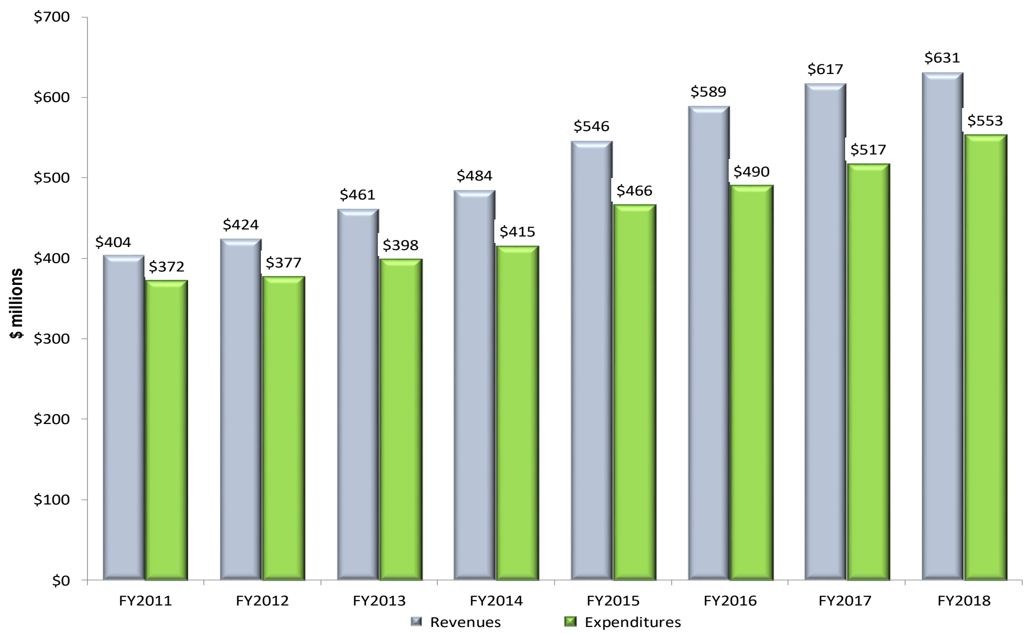
- **Utilities** – Total utilities cost relatively flat compared to the approved FY 2019 budget at approximately $27.0 million. However, water usage and electricity budgets increased by $0.6 million due to increase in flows from the Wet Weather Facility and Filtrate Treatment Facility (FTF) activities that became operational in 2018. DC Water's thermal hydrolysis process and anaerobic digesters continues to generate approximately 7MW electricity to offset the Authority-wide energy consumption of 32MW. Additional reduction resulted from the rental budget for recent departmental relocations into the new Headquarters Office (HQO) in late 2018/2019.
- **Chemicals** – increase of $1.6 million or 7.0 percent above the approved FY 2019 budget is due to escalating unit prices for major chemicals (methanol and sodium bisulfite) and high chemical usage from increased effluent from the Tunnel Dewatering Pump Station during rain events.
- **Water Purchase** – increase of approximately $4.4 million or 14.4 percent above the approved FY 2019 budget. This represents DC Water's share of the Washington Aqueduct's FY 2019 O&M budget.
- **Biosolids Hauling** – slightly lower compared to FY 2019 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

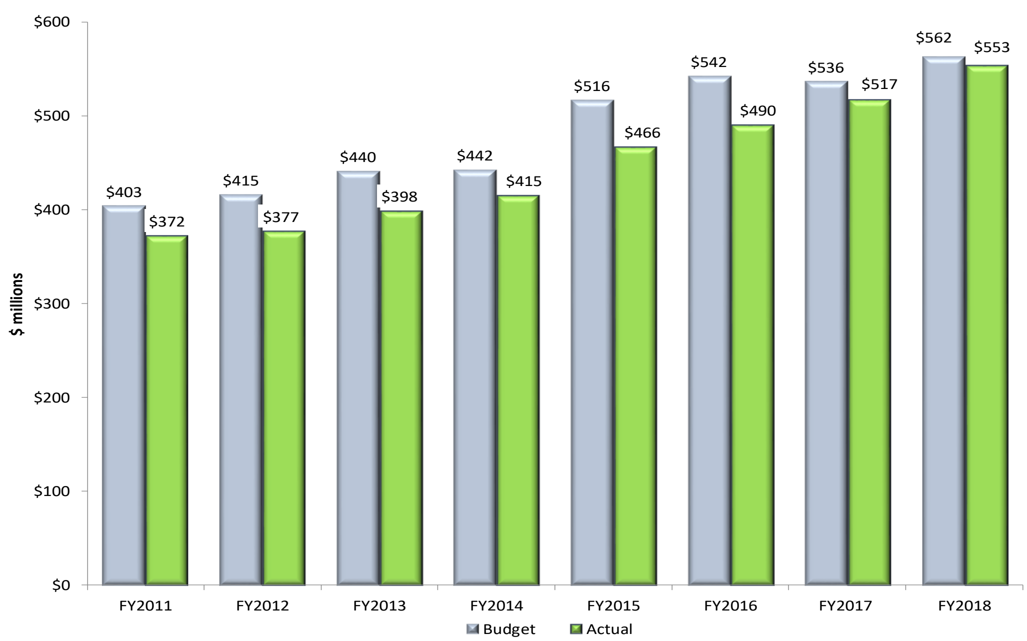
Solid Financial Performance with Revenues Consistently Exceeding Expenses

- FY 2018 Actual Operating cash receipts increased by 14.2 million to $631.2 million or 2.2 percent
- FY 2018 Actual Operating expenses increased by $36.3 million to $553.2 million, or 6.6 percent
- FY 2018 Budget to actual results showed both revenues exceeding and expenses below budget

Comparative Operating Receipts



Expenditure Budget to Actual



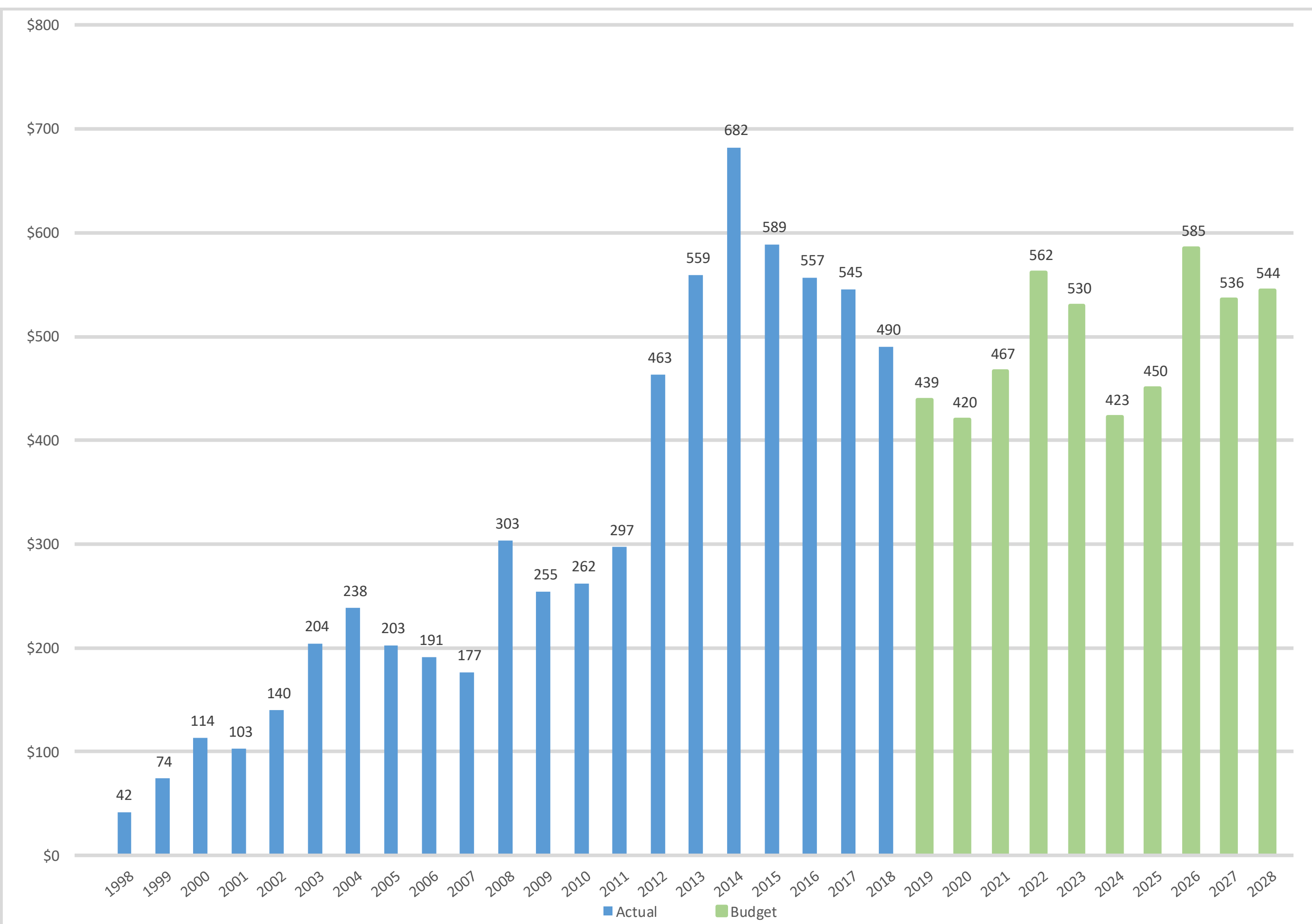
$ in thousands

The $4.95 Billion Ten-Year CIP Protects Our Assets While Leveraging Long-Term Debt

The FY 2019 – FY 2028 financial plan anticipates capital disbursements of $4.95 billion. Over the last 21 years, $6.5 billion has been invested on DC Water's system averaging approximately $309 million per year. Projected annual spending ranges from $420 million to nearly $544 million as shown in the chart below (or approximately $496 million per year from FY 2019 – FY 2028). 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.

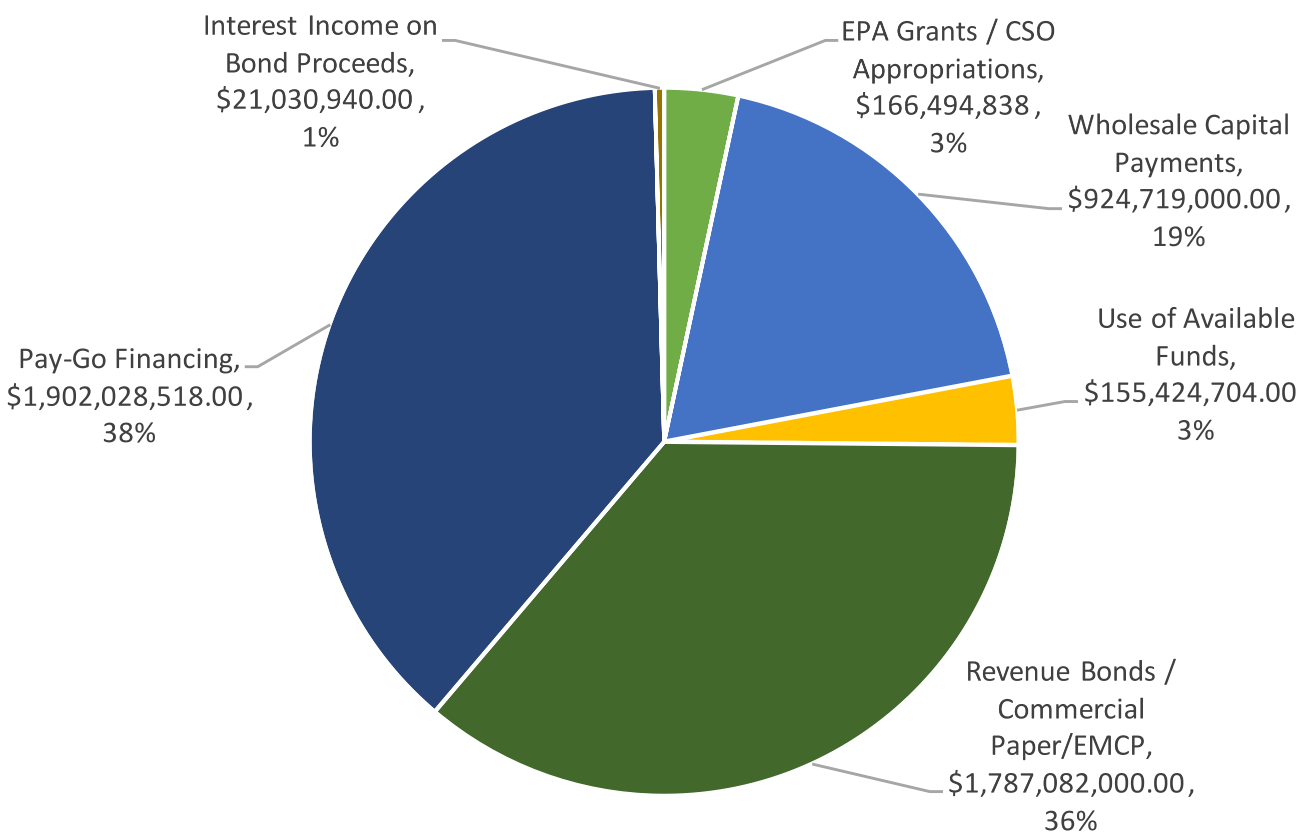
As noted earlier in this section, DC Water developed a comprehensive financing plan in FY 1999 with the dual goals of 1) securing the lowest cost of capital possible, and 2) maximizing administrative and operating flexibility. The plan includes the following components: Grants; wholesale capital payments;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

Historical and Projected Capital Spending
FY 1998 – FY 2028



FY 2019 – FY 2028 Capital Improvement Program
Sources of Funds

		FY2019 - 2028 PLAN TOTAL	Percent of Total
EPA Grants / CSO Appropriations	$	166,494,838	3.36%
Wholesale Capital Payments		924,719,000	18.66%
Use of Available Funds		155,424,704	3.14%
Revenue Bonds / Commercial Paper/EMCP		1,787,082,000	36.05%
Pay-Go Financing		1,902,028,518	38.37%
Interest Income on Bond Proceeds		21,030,940	0.42%
TOTAL SOURCES	**$**	**4,956,780,000**	100.0%



- **EPA and CSO Grants** – For FY 2019 – FY 2028, EPA and CSO grants represent only 3.3 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 $ 252.8 million in Congressional appropriations for the Clean Rivers Project (aka CSO LTCP) as of September 30, 2018.

- **Wholesale Capital Payments** - Approximately 60 percent of the capacity of DC Water's wastewater treatment facilities are contractually committed to provide wholesale service to suburban jurisdictions under various contracts. Montgomery and Prince George's Counties (through the Washington Suburban Sanitary Commission (WSSC), Fairfax County, and the Loudoun County Sanitation Authority pay a proportionate share of capital-related costs equal to their share of contracted capacity at Blue Plains. DC Water anticipates 18.7 percent of its capital funding will come from wholesale customers.

- **Revenue Bonds/Commercial Paper/EMCP-** Currently debt financing represent only 36.1 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 38.4 percent of total funding for the FY 2019 – FY 2028 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 2019 and FY 2020 Debt Issuance Plans & Debt Service Assumptions

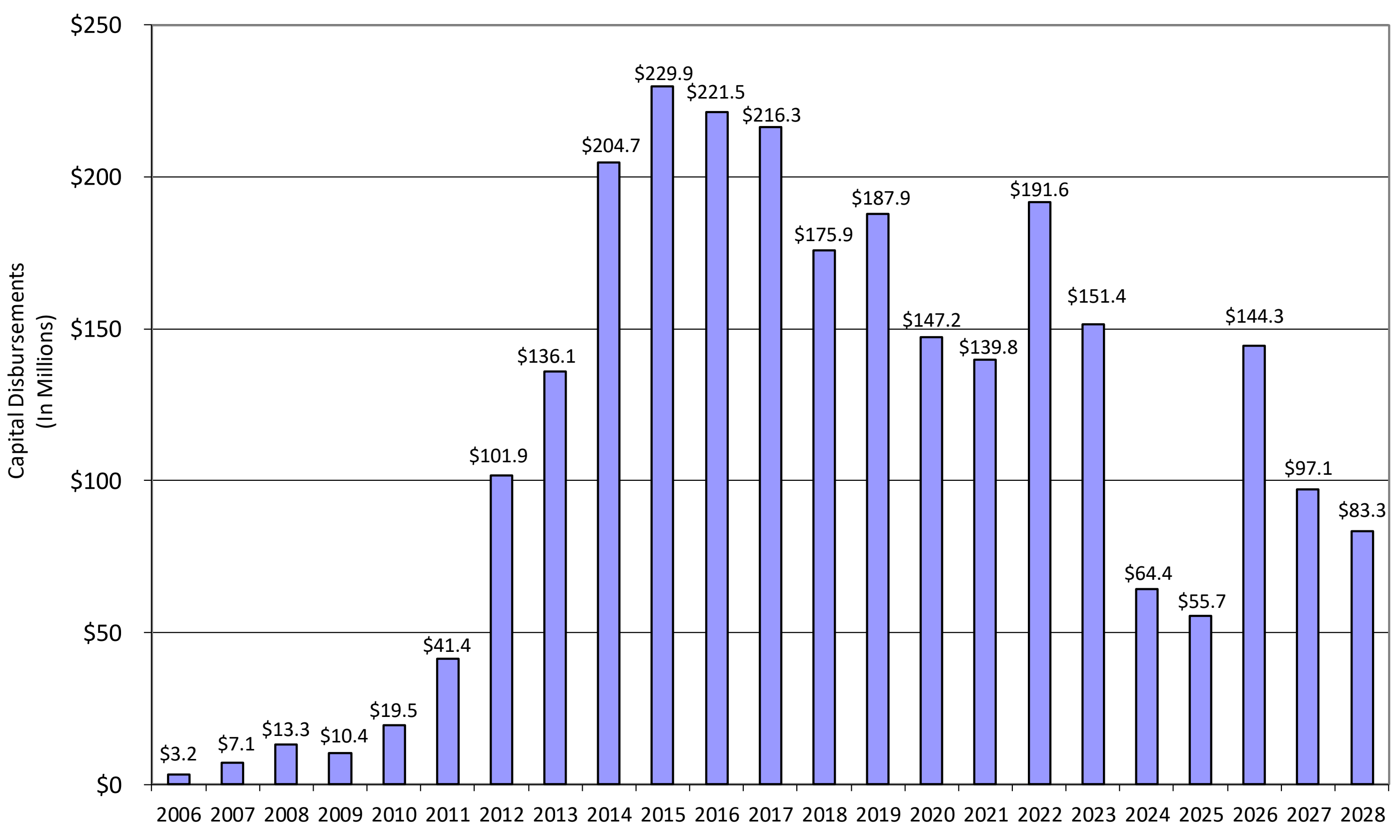
Based on current capital project spending, we plan to: 1) issue approximately $250 million in new bonds in third quarter of FY 2019. For the purpose of financial planning we have assumed fixed rate, tax-exempt bonds at 5.0 percent. Similarly, for the remainder of the ten-year plan we have assumed issuing long term bonds at 5.50 percent for FY 2019, 6.0 percent for FY 2020, and 6.50 percent for FY 2021 – FY 2028, 2) issue commercial paper/EMCP for interim financing. The ten-year plan assumes a variable interest rate of 2.50 percent in FY 2019 – FY 2028. 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 $1.3 billion of projected disbursements. Projected spending by fiscal year for the Clean Rivers Project is shown in the next chart.

In FY 2018, DC Water received federal funding of $14.05 million for the Combined Sewer Overflow Long Term Control Plan Service Area. However, as the project spending increases over the years, so does the projected Clean Rivers Impervious Service Area Charge (CRIAC) rate. If additional federal assistance is provided, the Clean Rivers IAC would increase at a slower pace than this ten-year plan proposal assumes. As noted earlier, this plan assumes jurisdictional contributions, for joint-use Projects, to the Clean Rivers Project under the IMA of 7.1 percent beginning in FY 2011. Please see section IV for more details on the Clean Rivers IAC.

Clean Rivers CSO LTCP Disbursements by Fiscal Year



Cash balances totaled $229.2 million at the end of FY 2018. 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 2018 Year - End Cash

Board-Adopted Operating Reserves (120 Days of O&M)	
60 Day Operating Reserve (Indenture Required	$51,705
Renewal & Replacement Reserve (Indenture Required)	35,000
Undesignated Reserve	38,795
Total Operating Revenue	**$25,500**
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)]	$41,296
Total Cash Position [(1)]	**$ 229,246**

(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 $51.7million in FY 2018.
- **Renewal & Replacement Reserve** - In FY 2013 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 will be 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 2018) 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 2018. 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 $55.45 million available at the end of FY 2019 – 2028.

- **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.