



**APPROVED  
BUDGETS**



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

**Section III  
FINANCIAL PLAN**

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

### Vision

To be a world-class water utility

### Mission

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

### Values

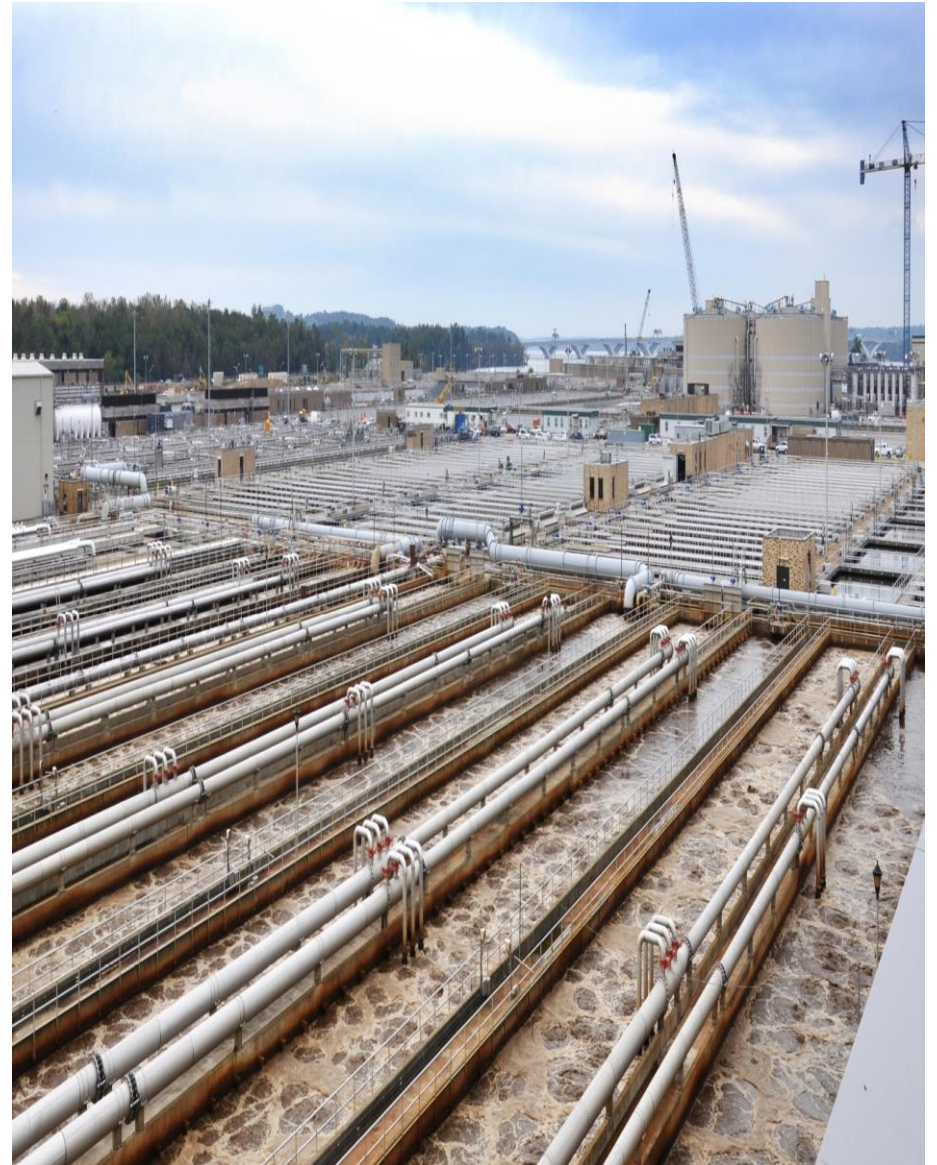
- Respectful, serve with a positive attitude, courtesy, and respect that engender collaboration and trust
- Ethical, maintain high ethical standards, accountability, and honesty as we advance the greater good
- Vigilant, attend to public health, the environment, quality, efficiency, and sustainability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

### Goals

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

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

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



## BLUE HORIZON 2020

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

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

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

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

## FOCUS AREAS

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

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

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

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

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

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

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

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

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

## ***Financing and Reserve Policies***

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

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

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

### ***Pay-As-You-Go Capital Financing Policy***

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

## **Cash Management and Investment Policies**

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

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

The current Investment Policy is available on-line at [www.dcwater.com](http://www.dcwater.com).

## **Debt Policy and Guidelines**

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

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

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

The current Debt Policy and Guidelines is available on-line at [www.dcwater.com](http://www.dcwater.com)

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

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



- **DC Water did not utilize rate stabilization fund (RSF) in FY 2016** but contributed \$19.0 million to RSF - The Rate Stabilization Fund's ending balance for FY 2016 was \$51.45 million.
- **DC Water continued its strong operating budget performance in FY 2016** - For FY 2016, actual cash receipts were higher than the revised budget by \$8.8 million, or 1.5 percent. Actual operating expenditures were \$51.7 million or 10.0 percent lower than budget. DC Water experienced lower O&M due to underspending in contractual services attributable to materialized savings in biosolids hauling costs and delayed fee to operate the CHP project; lower unit prices for methanol and the use of safer and less expensive chemicals to control alkalinity and pH levels; utilities resulting from energy generated from the CHP project; and water purchase based on DC Water's share of Washington Aqueduct's budget. Underspending in debt service was attributable to lower interest rates, refinancing and delayed issuances. Furthermore, due to favorable projected O&M at 92% there was no need to utilize the Cash Financed Capital Improvements, which was established to cover emergency financial needs.
- **The Clean Rivers Impervious Surface Area Charge (CRIAC) was implemented in May 2009** to recover the cost of the Combined Sewer Overflow Long-Term Control Plan (CSO LTCP), also known as the DC Clean Rivers Project. In FY 2011, a six-tiered rate structure was successfully implemented for all residential retail customers to better reflect the impacts of various size residential properties. The twenty-year CSO LTCP, whose terms are outlined in a consent decree executed in March 2005, exclusive of the nine-minimum controls programs are projected to cost \$2.3 billion. See "Combined Sewer Overflow Long-Term Control Plan" in Section IV, Rates and Revenues for additional details on the projected rate impact of the plan.
- DC Water implemented a retail water and sewer rate increase of 6.5 percent in FY 2016 to recover increased revenue requirements of \$14.3 million. No Rate Stabilization Fund (RSF) was utilized in FY 2016. If needed, the RSF helps to mitigate rate shock and reduces needed retail rate increases. In addition, there was a 2 percent increase in PILOT as per the PILOT MOU signed with the District on September 4, 2014. ROW fees remained same as in FY 2015. The changes in PILOT and ROW fee are made to recover the full costs of these fees charged to DC Water by the District of Columbia government. The rate changes are mainly due to the increase in debt service cost to finance the capital improvement program.
- **Water System Replacement Fee (WSRF) was implemented in FY 2016 becoming** effective from October 1, 2015 (FY 2016), WSRF recovers the costs of 1 percent renewal and replacement program for water service lines. WSRF varies with meter size. The WSRF for 5/8" meter size is \$6.30. Low income CAP customers get 100 percent discount for this fee.
- **Multi-Year Rates:** DC Water moved to a multi-year rate proposal in FY 2016 covering the period FY 2017 and FY 2018. The Board has approved the multi-year rates, which will become effective from October 1, 2016.

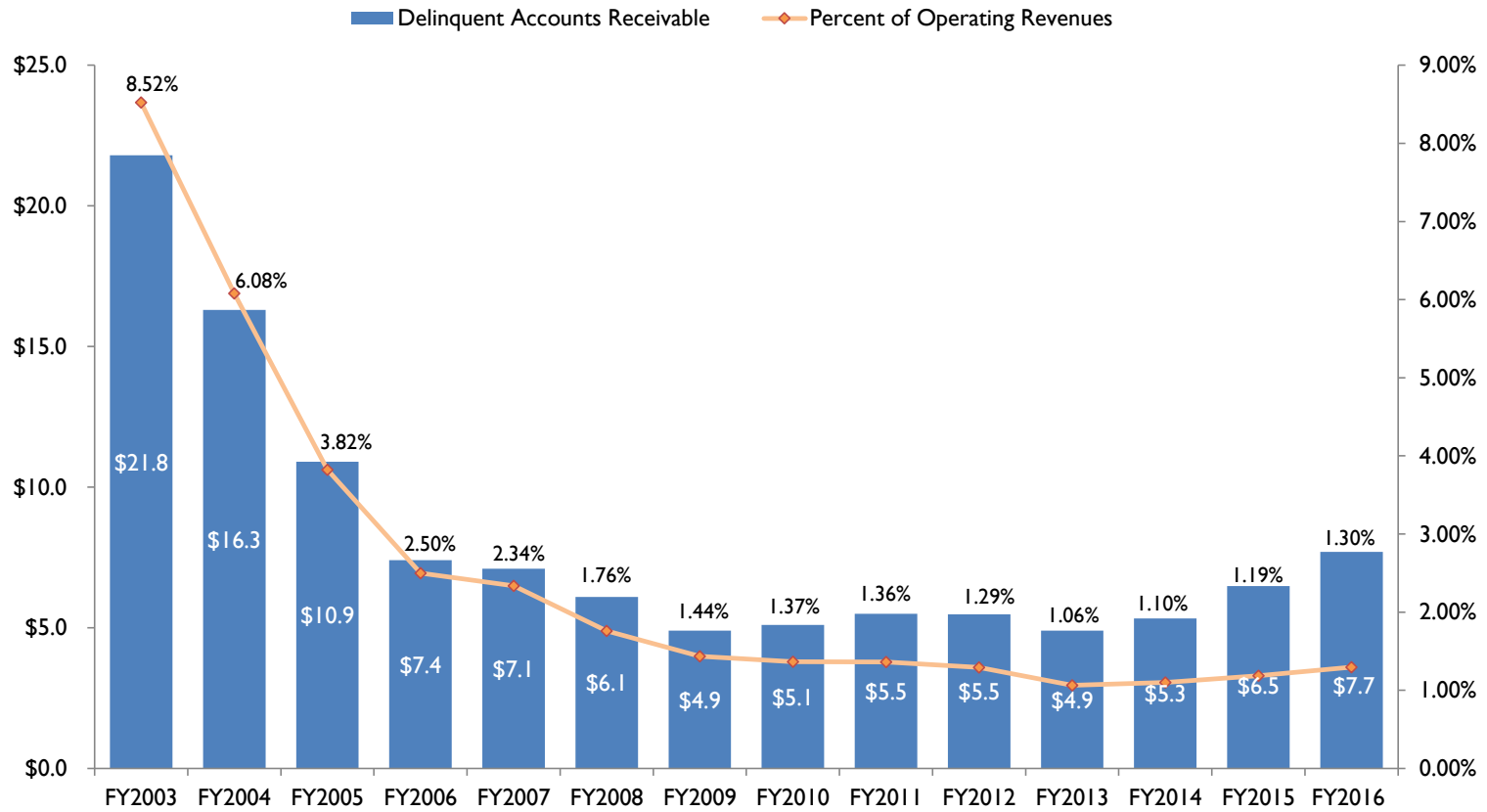
The benefits of multi-year rates include:

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

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

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

### DELINQUENT ACCOUNTS RECEIVABLE (\$ in Millions)



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

## General Principles of Affordability for Low- Income Customers Policy

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

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

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

### Additional Alternative Fees and Charges:

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

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

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

# Future Goals and Financial Assumptions

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

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



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

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

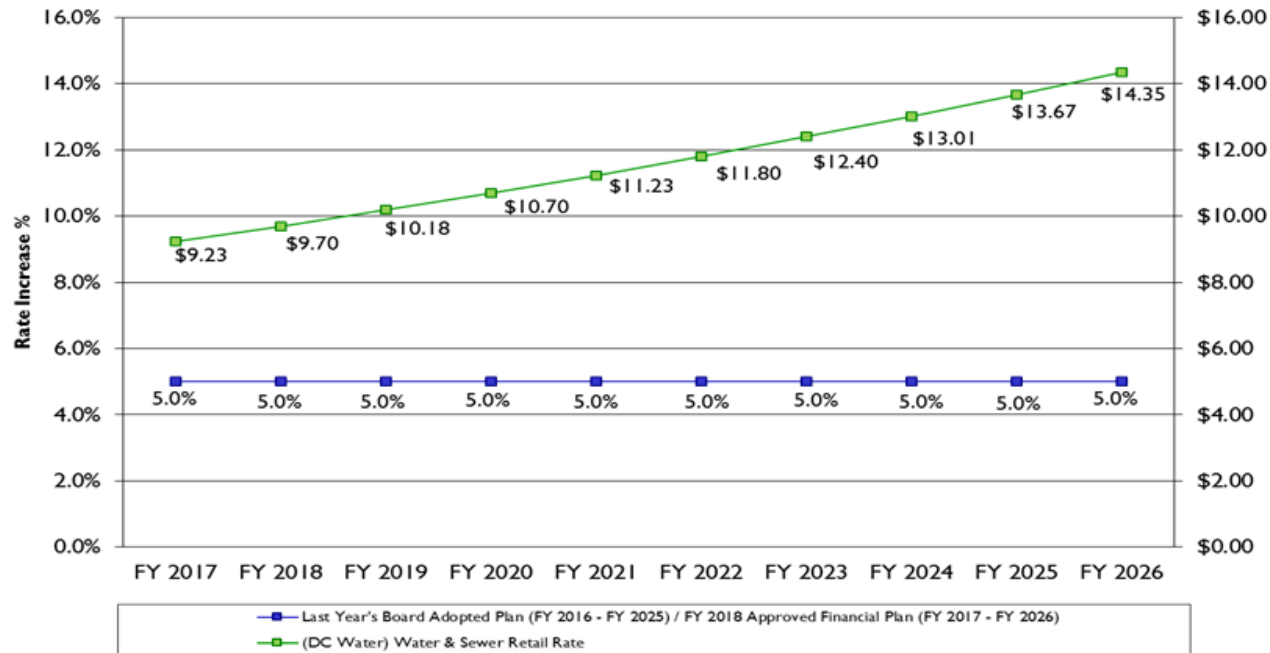
The ten-year financial plan reflects the following major assumptions:

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

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

## Projected Retail Rate Increases

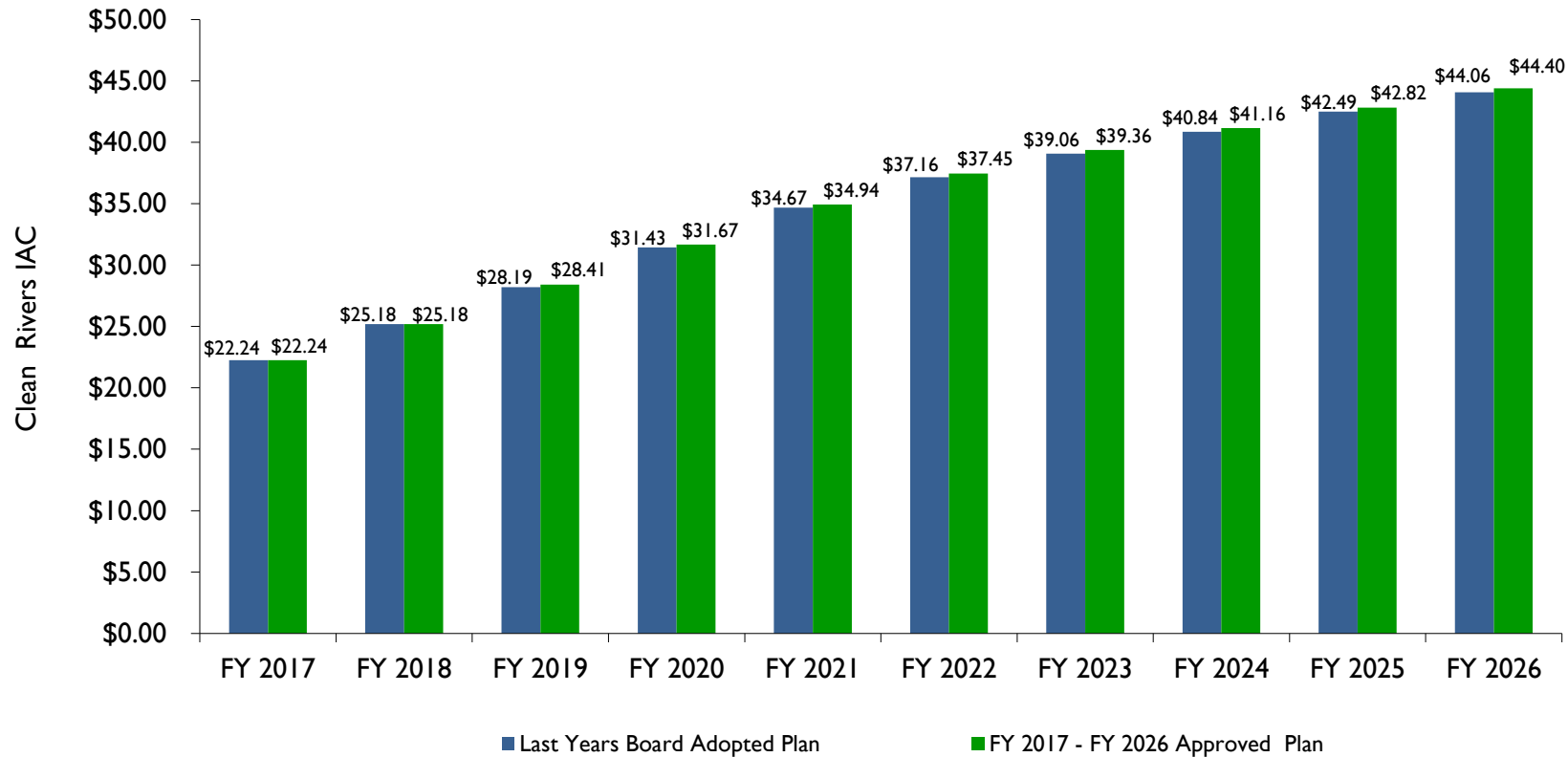
FY 2017 – FY 2026



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

## Projected Monthly Clean Rivers Impervious Surface Area Charge Increases

FY 2017 – FY 2026



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

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

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

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

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

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

# FY 2017 Revised Vs Approved Operating Receipts

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

# Operating Expenditures

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

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

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

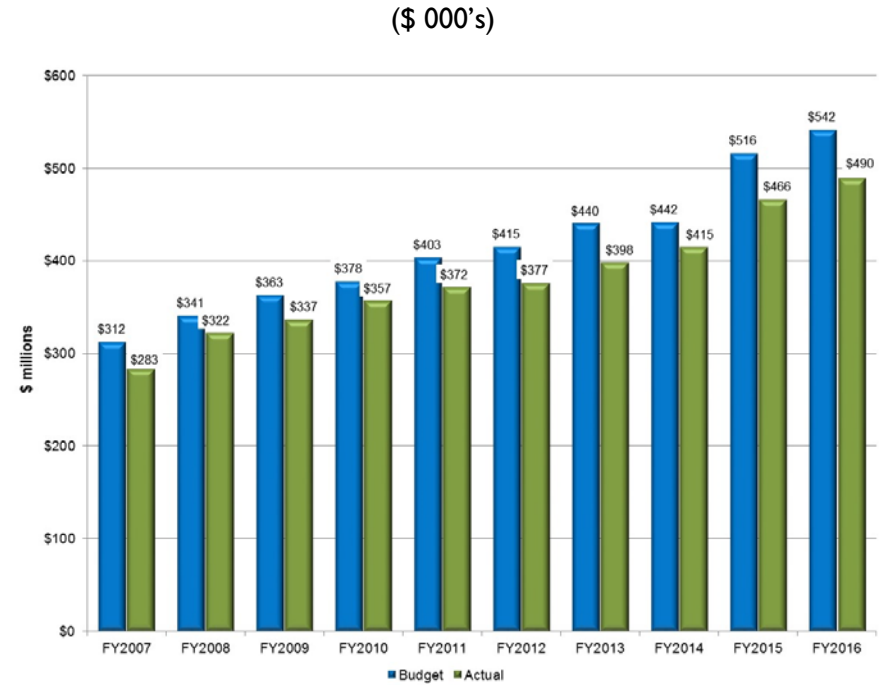
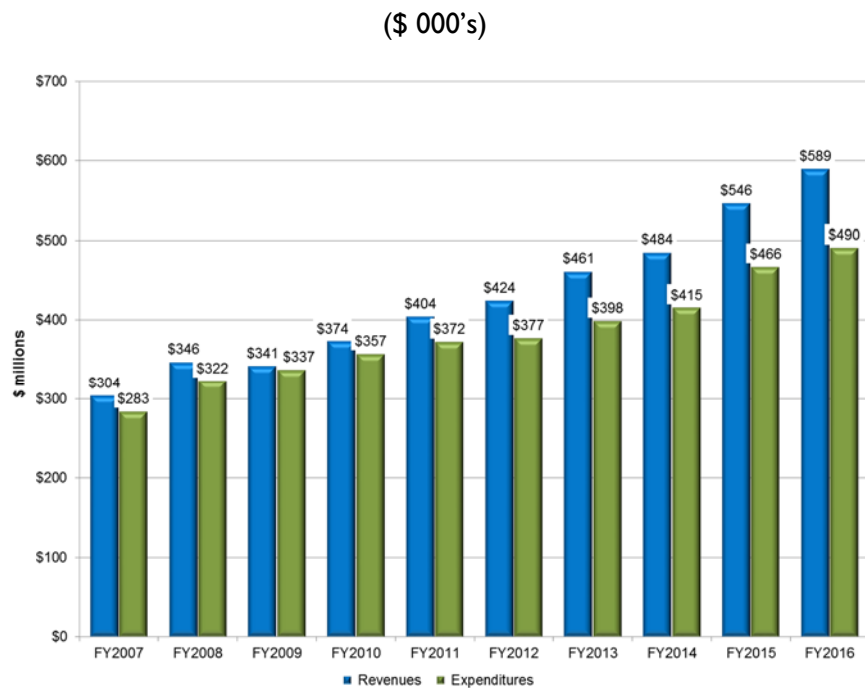
- **Personnel Services** – increase of \$4.4 million or 3.1 percent above the approved FY 2017 budget. The increase is attributable to health benefits and anticipated reduction of vacancies as the Authority continues its increased hiring efforts. Lower overtime, also impacted by increased hiring, is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

### Solid Financial Performance with Revenues Consistently Exceeding Expenses

- FY 2016 Actual Operating cash receipts increased by \$43.2 million to \$589.3 million or 7.9 percent
- FY 2016 Actual Operating expenses increased by \$23.6 million to \$489.9 million, or 5.1 percent
- FY 2016 Budget to actual results showed both revenues exceeding and expenses below budget

Revenues vs. Expenditures

Expenditure Budget to Actual Results

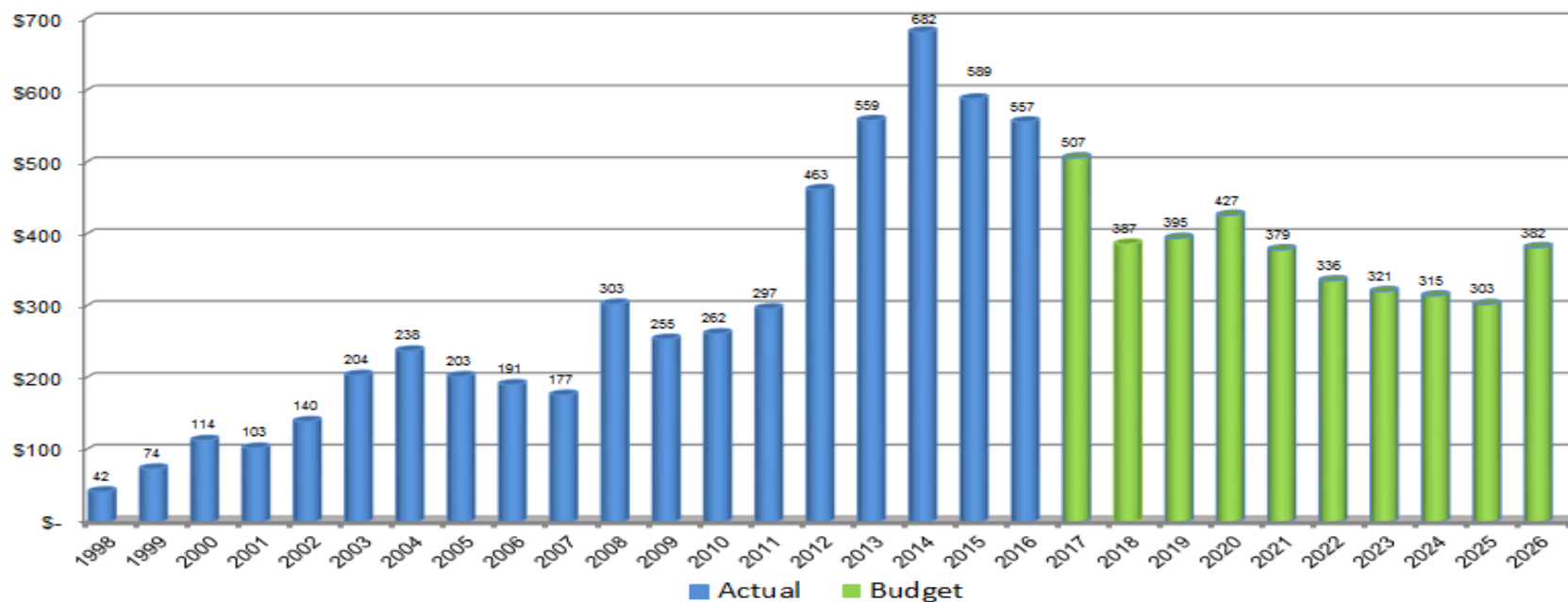


## The \$3.75 Billion 10-Year CIP Protects Our Assets While Leveraging Long-Term Debt

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

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

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



Additional details on each financing source are described below:

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

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



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

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

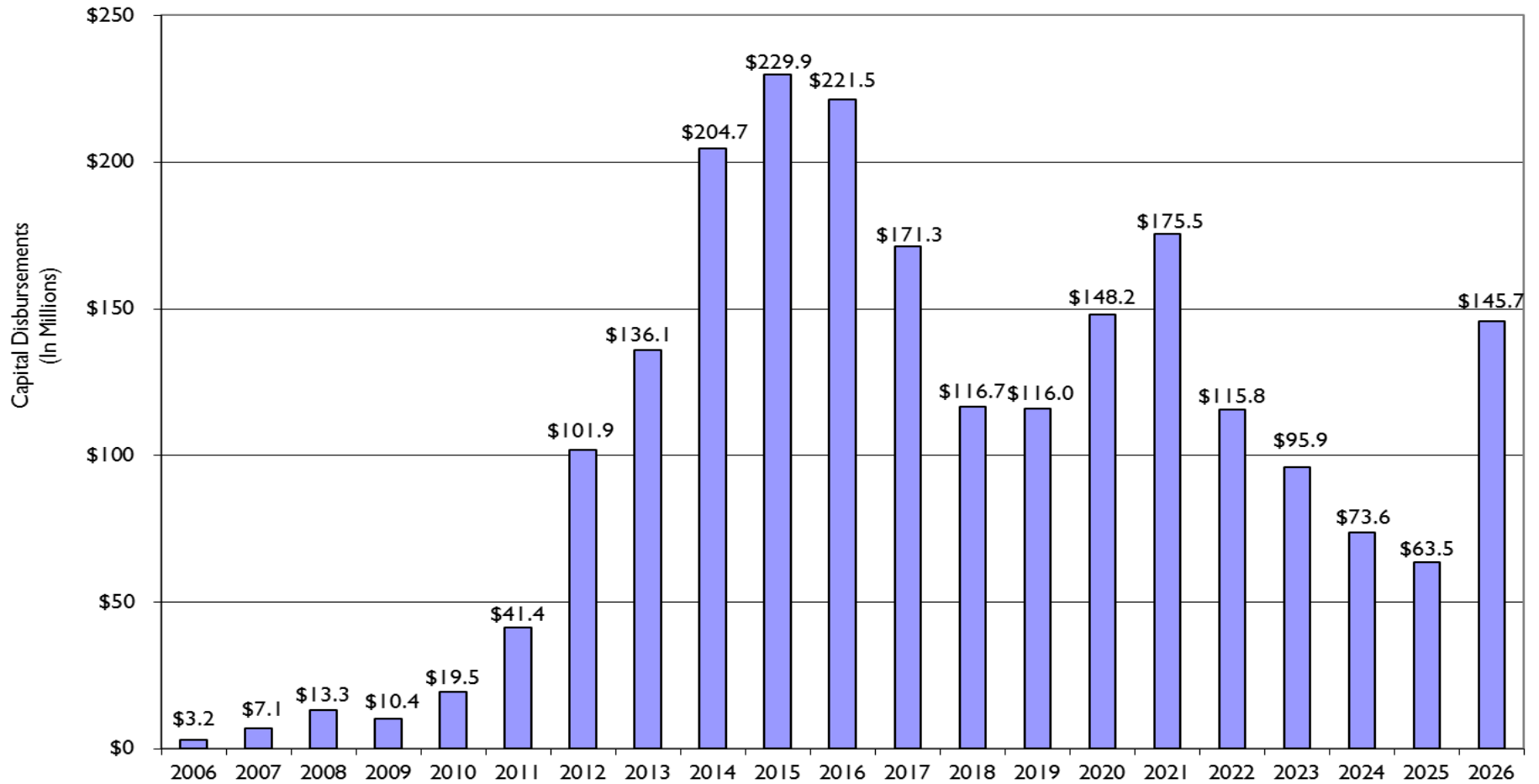
Based on current capital project spending, we plan to: 1) issue approximately \$300 million in new bonds in second quarter of FY 2017. For the purpose of financial planning we have assumed fixed rate, tax-exempt bonds at 5.75 percent. Similarly for the remainder of the ten-year plan we have assumed issuing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

## ***DC Clean Rivers Project***

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

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

Clean Rivers CSO LTCP Disbursements by Fiscal Year



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

DC Water's operating reserve includes the following components:

### FY 2016 YEAR - END CASH

(In 000's)

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

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

#### OTHER RESERVES

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

#### TOTAL RESERVES

Cash in Excess of Reserves <sup>(1)</sup>		37,153
<b>TOTAL CASH POSITION <sup>(1)</sup></b>	<b>\$</b>	<b>215,144</b>

(1) Excludes Debt Service Reserve Funds

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

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

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