



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
241st MEETING OF THE BOARD OF DIRECTORS
Thursday, April 5, 2018
9:30 a.m.
5000 Overlook Avenue, SW
Room 407**

- I. Call to Order (Chairman Tommy Wells)**
- II. Roll Call (Linda Manley, Board Secretary)**
- III. [Approval of March 1, 2018 Minutes](#)**
- IV. Chairman's Overview**
- V. Committee Reports**
 - [1. Environmental Quality and Operations Committee \(James Patteson\)](#)
 - [2. DC Retail Water and Sewer Rates Committee \(Kendrick Curry\)](#)
 - [3. Finance and Budget Committee \(Timothy Firestine\)](#)
- VI. Issues of General Interest**
- VII. CEO/General Manager's Report (Henderson J. Brown IV, Interim)**
- VIII. Summary of Contracts (FYI)**
- IX. Consent Items (Joint Use)**
 - [1. Approval to Execute Supplemental Agreement No. 2 of Contract No. DCFA #463-WSA, AECOM Services of DC, – Resolution No. 18-30 \(Recommended by the Environmental Quality and Operations Committee 03/15/18\)](#)
 - [2. Approval to Execute Contract No. DCFA #483-WSA, HDR Engineering, Inc. – Resolution No. 18-31 \(Recommended by the Environmental Quality and Operations Committee 03/15/18\)](#)
 - [3. Approval of the Final Form of Certain Documents, Authorizing the Sale and Setting Terms and Details of the Series 2018A and Series 2018B Bonds – Resolution No. 18-32 \(Recommended by the Finance and Budget Committee 03/22/18\)](#)

X. Consent Item Non-Joint Use

1. [Approval to Execute Contract No. 150220, Fort Myer Construction Corporation– Resolution No. 18-33](#) (Recommended by Environmental Quality and Operations Committee 03/15/18)

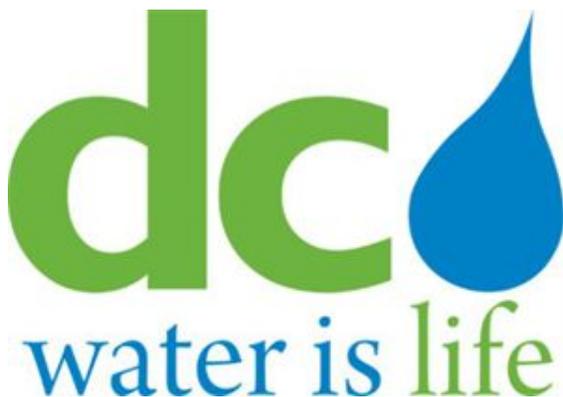
XI. Executive Session – To discuss legal, confidential and privileged matters pursuant to Section 2-575(b) of the D.C. Official Code¹

XII. Adjournment (Chairman Tommy Wells)

¹ The DC Water Board of Directors may go into executive session at this meeting pursuant to the District of Columbia Open Meetings Act of 2010, if such action is approved by a majority vote of the Board members who constitute a quorum to discuss: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); contract negotiations under D.C. Official Code § 2-575(b)(1); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4); collective bargaining negotiations under D.C. Official Code § 2-575(b)(5); facility security under D.C. Official Code § 2-575(b)(8); disciplinary matters under D.C. Official Code § 2-575(b)(9); personnel matters under D.C. Official Code § 2-575(b)(10); proprietary matters under D.C. Official Code § 2-575(b)(11); decision in an adjudication action under D.C. Official Code § 2-575(b)(13); civil or criminal matters where disclosure to the public may harm the investigation under D.C. Official Code § 2-575(b)(14), and other matters provided in the Act.

Upcoming Committee Meetings

- Environmental Quality and Operations Committee – Thursday, April 19th @ 9:30 a.m.
- Audit Committee – Thursday, April 26th @ 9:30 a.m.
- Finance and Budget Committee – Thursday, April 26th @ 11:00 a.m.
- DC Retail Water and Sewer Rates Committee – Tuesday, April 24th @ 9:30 a.m.



**District of Columbia
Water and Sewer Authority**

Board of Directors

**Environmental Quality and Operations
Meeting**

Thursday, March 15, 2018

9:30 a.m.

MEETING SUMMARY

Committee Members

James Patteson, Chairperson
Patty Bubar
Anthony Giancola (via telephone)
David Franco
Howard Gibbs
Jed Ross

DC Water Staff Present

Henderson Brown, Interim General Manager
Linda R. Manley, Secretary to the Board
Gregory Hope, Associate Counsel
Leonard Benson, Chief Engineer

I. Call to Order

Mr. Patteson called the meeting to order at 9:33 a.m.

II. PATH TO ASSET MANAGEMENT WORK PLAN

Mr. Len Benson, Chief Engineer, gave a presentation on DC Water’s proposed path to achieve Asset Management (AM). This work plan proposal involves a collaborative effort by residents and ratepayers, the DC Water Board of Directors and the Executive Team. The elements different pathway to achieving AM and their assignments to the different Committees are as follows:

- Exploring investment in infrastructure (Environmental Quality and Operations Committee)
- Exploration of alternative revenue sources (Finance and Budget Committee)
- Community outreach and education (Retail Rates Committee)
- Assessing AM’s impact on DC Water’s financial plan (Finance and Budget Committee), and
- Assessing customer affordability (Retail Rates Committee)

Mr. Benson stated that from March to September, 2018 there will be briefings to the different Committees and in November 2018, a budget will be presented to the Board.

The Committee inquired if experiences from utilities other than water and wastewater were being considered. Mr. Benson replied that DC Water would take that suggestion in to consideration when developing the details of the work plan. The Committee also inquired if this effort and its deliverable will contain substantially new information, other than what was already known by DC Water and the Committee. Mr. Benson replied that while some of the information

that will be gathered as part of this exercise will be familiar to the Committee, there will be significant areas where new or more detail information will be obtained (ex: cost of proactive investment vs. emergency repairs; socioeconomic impacts, etc.). In addition, DC Water will obtain feedback from the Committee during progress discussions and modify its approach to the work plan as needed.

III. CLEAN RIVERS UPDATE

Mr. Carlton Ray, Director, Clean Rivers Project, gave a quarterly update to the Committee, by exception. He stated that the Project was on track to meet its consent decree deadline of March 23, 2018. Mr. Ray also highlighted the operational status of the new Poplar Point pumping station. He stated that operational demonstration was completed on March 15, 2018 having met all consent decree obligations and demonstrating core functions.

Mr. Ray concluded his presentation by congratulating and mentioning that Ms. Bethany Bezak, Manager, Green Infrastructure, and part of the Clean Rivers team, was recognized by Virginia Tech's Department of Biological Systems Engineering as the '2018 Outstanding Recent Graduate Alumna'.

IV. WATER MAIN HISTORY AND ASSOCIATED COST

Mr. Charles Kiely, AGM, Customer Care & Operations, gave a briefing on water main break operations and began by providing the Committee a historical overview of reported main breaks over the last 10 years. In FY 2017, DC Water reported approximately 31 breaks per 100 miles of pipe, compared to the national average of 25 breaks per 100 miles. Based on the 2017 American Water Works Association (AWWA) Utility Benchmarking survey, breaks per 100 miles for combined utilities ranged from 10 to 49.

Mr. Kiely stated that, as per expectations based on experience, water main breaks have a direct relationship with cold temperatures and as a result, peak during mid to late winter (December – February). The Committee inquired if a drop in temperatures affected pipes of a certain age range more so than other pipes in the system. Mr. Ray replied that because DC Water's water system is relatively old (i.e., >75 years), there is no single trend that definitively shows that pipes of a certain age are more affected than others. The Committee also inquired if the mode of pipe breaks is at the joints or the pipe itself. Mr. Ray responded that this too varies and the utility experiences multiple modes of pipe breaks.

Mr. Kiely next stated the average main break costs have fluctuated between \$8,000 to \$20,000 per location and that operational overtime, contractor costs and public restoration costs have all been leading contributors to increasing costs. Mr. Kiely next shared with the Committee ongoing water capital expenditures over the last 10 years. The Committee commented that the figures provided show that a disproportionate percentage of water main break repair operational costs result from roadway restoration activities and inquired if DC Water would make the discussion of potentially modifying the DDOT-DC Water Memorandum of Understanding (MOU) a future agenda item. Mr. Kiely responded in the affirmative.

Mr. Kiely next mentioned that a significant portion of water quality issues experienced by the District resulted from the presence of unlined cast iron pipes in the water system, which are prone to tuberculation. Of the 1,350 miles of pipes in DC Water's water distribution system, approximately 740 miles are unlined cast iron. To combat this problem, the Water Quality Group at DC Water engages in routine flushing within 83 areas every 1-4 months affecting

approximately 12,450 residences.

V. SEWAGE PUMPING STATION FLOOD PROTECTION STATUS

Mr. Craig Fricke, Director, Department of Engineering and Technical Services (DETS), gave an update on the status of flood protection for DC Water's sewage pumping stations. He indicated that the current risk assessment is based on a 2014 evaluation of the 2010 FEMA flood mapping (which is currently being updated with the 2017 FEMA mapping). Mr. Fricke stated that of the nine (9) sewage pumping stations, only two (2) are at risk with the 100-year floodplain and six (6) are at risk with the 500-year floodplain. The Committee inquired as to what was the resultant impact to the assets. Mr. Fricke replied that impacts could include flooding of facilities and failure of pumping station equipment. The Committee requested DC Water provide additional details regarding specific impacts to assets for both the 100-year and 500-year flood scenarios. [The Committee also recommended that DC Water look into the updated 100-year and 500-year flood delineations, as the current FEMA delineations may not be accurate.]

Next, Mr. Fricke shared existing floor elevations of the Main Sewage Pumping Station as compared to the 100 and 500-year flood elevations, which showed that despite some critical equipment having been raised above the 100-year elevation, some portions of the facility remain below the 100-year flood elevation. The Committee inquired what serious issues would arise if pumping equipment were to potentially be under water. Mr. Fricke replied that not all of the equipment in the pump station was designed to operate under flood conditions and that damage to equipment was possible. The Committee also requested DC Water provide a briefing regarding its insurance policies to the benefit of new board members.

Mr. Fricke also mentioned that DC Water had obtained FEMA Grant funding for the Main Pumping Station Flood Mitigation project, which is expected to be completed on September 30, 2018. The grant will support 75% of the project budget (\$1,598,569.00). DC Water will continue to work on other hazard mitigation projects as funding becomes available.

Mr. Fricke concluded his presentation by summarizing as follows:

- Two of the nine pumping stations are currently at risk for a 100-year flood while six of the nine are at risk for a 500-year flood
- Project to protect the Main Sewage Pumping Station from a 100-year flood event is ongoing
- Currently no funding included in the CIP for flood protection of any of the other sewage pumping stations
- DC Water's Emergency Management Plan addresses flood preparation for all DC Water facilities including pumping stations

VI. ACTION ITEMS

JOINT USE

1. Contract No. DCFA #463 – Construction Management Services, Anacostia River Combined Sewer Overflow (CSO) Control Projects, Division Z – Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion, AECOM.

The Committee inquired if some of the cost of the supplemental agreement would be recovered from liquidated damages. Mr. Benson replied in the affirmative.

2. Contract No. DCFA #425 – Grit, Screens and Primary Facilities Upgrades, HDR, Inc.

A future supplemental agreement will follow once the concept finalization report and design lock-in is completed. The supplemental agreement will include design, bid phase services, O&M manual development, services during construction, start-up phase and commissioning phase assistance.

NON-JOINT USE

1. Contract No. 150220 – Division PR-A1-Potomac River Project A1 (GI), Fort Myer Construction Corporation.

The Committee recommended both the joint use and non-joint use Action Items to the full Board.

VII. AWTP STATUS UPDATES

1. BPAWTP Performance

Mr. Aklile Tesfaye, Assistant General Manager for Wastewater Treatment reported on the performance of the Blue Plains Advanced Wastewater Treatment Plant (AWTP) by exception. Mr. Tesfaye stated that all performance parameters were excellent and all permit requirements were met.

Mr. Tesfaye briefly highlighted some performance parameters of the Combined Heat and Power (CHP) facility at Blue Plains. He stated that the recent repairs completed on two of the three Heat Recovery Steam Generators (HRSG), have significantly improved the reliability of the CHP to produce and supply adequate high pressure steam to the Thermal Hydrolysis Process (THP) and maximize use of digester gas for electricity production. The average electrical energy production rate, in MWH/day, for February 2018 was the highest achieved since the beginning of the contract operation period on July 1, 2016.

The Committee inquired if DC Water would still be able to meet its Bloom sales projections for the year. Mr. Tesfaye replied in the affirmative and stated that DC Water is prepared to supply Bloom to Blue Drop to market during the upcoming spring landscaping season and beyond, and meet its 20,000 tons/yr goal.

VIII. WATER QUALITY MONITORING

Mr. Charles Kiely, Assistant General Manager for Customer Care and Operations, gave a brief update regarding water quality monitoring activities, specifically, regarding Total Coliform and Lead and Copper Rule (LCR) testing. Mr. Kiely noted there were no positive tests last month and to-date that indicated the presence of bacteria. In regards to LCR testing, laboratory test results showed the water distribution system to be performing exceptionally well. Mr. Kiely also

mentioned that the annual Chlorine cleaning has been scheduled to start on March 26, 2018 and notifications have been sent to customers who will be affected.

IX. FIRE HYDRANT UPGRADE PROGRAM

Mr. Jason Hughes, Director, Water Utility Services, gave a brief update on the status of public fire hydrants in the District of Columbia. He stated that of the approximately 9548 public service hydrants, 51 were out of service as of March 5, 2018. Of the 51 that are currently not operational, 22 were operationally defective while 29 were out of service because of either nearby water main repairs, non-DC Water construction activities or other hydrant obstructions.

X. OTHER BUSINESS/EMERGING ISSUES

Mr. Benson proposed to the Committee a modification of the monthly EQ&Ops meeting format that ensures that time is devoted to progress discussion of DC Water's 'Path to Asset Management' work plan. The proposed approach is as follows:

- 45 minute discussion on 'Pathway to AM'
- 15 minute discussion on Action Items
- Remaining 30 minutes for reporting by exception to the routine Committee/Board of Directors oversight topics (i.e., WWTP, Fire Hydrants, WQ testing...etc.) and other Ad Hoc items.

XI. EXECUTIVE SESSION

None.

XII. ADJOURNMENT

Meeting adjourned at 11:37 a.m.

Follow-up Items

1. Assistant General Manager, Customer Care & Ops: Provide a briefing on the DDOT-DC Water Memorandum of Understanding (MOU) concerning roadway restoration requirements.
2. Director, DETS: Provide additional detail regarding specific impacts to sewage pumping stations for both the 100-year and 500-year flood scenarios.



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Board of Directors

DC Retail Water and Sewer Rates Committee

Tuesday, March 27, 2018

9:30 a.m.

MEETING MINUTES

Committee Members in Attendance

Reverend Kendrick Curry, Vice Chairperson
Tommy Wells, Board Chairman
Howard Gibbs
Ellen Boardman
David Franco
Anthony Giancola
Ivan Frishberg
Via Telephone:
Krystal Brumfield
Jed Ross

DC Water Staff

Henderson Brown, Interim CEO/General Manager
Matthew Brown, Chief Financial Officer
Meena Gowda, Acting General Counsel
Linda R. Manley, Secretary to the Board

Call to Order

Vice Chairperson Curry convened the meeting at 9:25 a.m.

Path to Achieve Asset Management (Attachment A)

Matthew Brown, Chief Financial Officer, briefed the Committee on the Path to Achieve Asset Management presentation. He stated that many of the Committee members have seen similar presentations because the topic has been presented in other committee meetings. Mr. Brown informed the Committee that the management proposal was \$4.0 billion for the ten-years FY 2018 – FY 2027 Capital Improvement Plan (CIP). He stated that during the course of the two months that we discussed the budget proposal and there was a proposal to increase the CIP over the ten-year period. In the final vote the Board adopted the management recommendation but there was a desire to explore what it would take to achieve asset management principles.

Mr. Brown updated the Committee on the five categories of issues that management and the Board will go over the next couple of months; 1) explore investment in infrastructure, 2) exploration of alternative revenue sources, 3) community outreach, 4) impact on the financial plan, and 5) customer affordability. He explained the committee assignments for the path to achieve asset management principles and stated that there is a lot of overlap with the DC Retail Water and Sewer Committee and Finance and Budget Committee.

Mr. Brown mentioned that the DC Retail Water and Sewer Committee will focus on the communication plan and customer affordability efforts. He noted that the communication plan effort includes; 1) videos on aging infrastructure, 2) incorporate infrastructure messaging in summer outreach events, 3) advertising and earned media, 4) participation in value of water campaign – imagine a day without water, 5) infrastructure week event, and 6) social media content. Mr. Brown updated the Committee on the customer affordability effort. He stated that there was good conversation in the Finance and Budget committee meeting about benchmarking and the appropriate characteristics to look for when identifying our peers. Staff has not yet identified who are our peer utilities but there was a strong desire to include comparable utilities with consent decrees, how utilities pay for the consent decree, how much is borne by the rate payers, and utilities cost structures. Mr. Brown stated that the customer affordability piece of the benchmarking is intertwined with the financial plan on the customer survey. He briefed the Committee on the customer satisfaction survey. He noted that the preliminary results show that (65%) agree DC Water is an excellent value for the money and a good value compared to other utilities (64%). He stated that (41%) are willing to pay more to improve the quality of the water and sewer service. Mr. Frishberg commented on the preliminary survey results by saying that 41% are willing to pay more to improve the quality of water and sewer service seems like the wrong question. The premise around the asset management plan is many of us believe we are going to have to pay more to maintain the quality of service with an aging system, which is a different proposition. Mr. Frishberg inquired about the workplan benchmarking efforts on the level of affordability within different customer classes, multi-family population being squeezed and low-income customers eligible for assistance but are not receiving assistance. Mr. Brown replied that the Customer Assistance Program (CAP) program is in place and there has been a lot of discussion at the management level about low-income customers who do not qualify for CAP or live in multi-family buildings. Mr. Gibbs asked management to explore adding a third “higher” tier because the cost of delivering water to those customers is more than customers that use less than 6.2 Ccf. Mr. Giancola inquired about how many customers completed the survey and what is the percent of our customer base. Mr. Brown responded that he believes that the sample size was approximately 1,200. There was brief discussion on the demographics, sample size and methodology of the survey. Vice Chairperson Curry asked how will we know the effectiveness and impact of the communication plan. John Lisle, Chief of External Affairs, replied that DC Water has done similar communications efforts for the launching of the Water System Replacement Fee (WSRF) that had public service announcements (PSA) on Comcast channels and social media campaigns. DC Water has been able to gauge the effectiveness of our communications efforts from the media coverage we have received.

Mr. Brown updated the Committee on the path to achieve asset management schedule.

Vice Chairperson Curry inquired about how much is the workplan review cost. Mr. Brown replied that we have not allocated specific budgets for the workplan. There will be cost components for various items. Most of the work will be done in External Affairs. To the extent there are extraordinary cost we will bring it to the Board. Most of the work involves benchmarking and that will be done in-house. Mr. Brown stated that he will talk to Mr. Lisle and Mr. Benson to see how we can capture the cost for reporting purposes.

DC Retail Water and Sewer Rates Committee Workplan (Attachment B)

Mr. Brown gave a brief update on the Committee workplan.

Agenda for April 24, 2018 Committee Meeting (Attachment C)

The Committee reviewed the agenda for the April 24, 2018 Committee meeting.

Proposed FY 2019 Clean Rivers IAC Credit for Cemeteries (Attachment D)

Mr. Brown briefed the Committee on the history of Clean Rivers IAC (CRIAC). He stated that the CRIAC was established to recover the cost mainly debt service of the \$2.7 billion Clean Rivers Project (CSO-Long Term Control Program). He mentioned that a Cost of Service Study (COS) is done every three years to ensure costs are appropriately allocated so the CRIAC is recovering only those dollars that takes to service the debt. On May 1, 2017, the Board approved a 50 percent CRIAC discount for low-income CAP customers. The Authority has taken actions over the years to lower the CRIAC impact on our ratepayers.

Mr. Brown informed the Committee that there are approximately 14 cemeteries that are charged the CRIAC. In FY 2019, these cemeteries are projected to have approximately 21,406 ERUs and \$492,338 CRIAC. He mentioned that cemeteries are somewhat unique in that they have very low consumption but higher impervious surface area charge mainly related to roads and buildings. They have been impacted by the CRIAC over the years. In order to provide relief, a 50 percent CRIAC discount to cemeteries will result in loss revenue of \$246,169 in FY 2019. Vice Chairperson Curry asked how the 50 percent discount was used for cemeteries. Mr. Brown replied that it was in line with the 50 percent CAP discount program. Mr. Frishberg commented that the 50 percent discount level for CAP customers is based on need. He noted that this is a different universe of customers and that we are trying not to get into needs assessments for all customers. He mentioned that applying the CAP 50 percent discount arbitrarily to cemeteries does not quite connect. He stated that we should have some more thoughtful methodology behind how do we better assess the real impact of cemeteries and then create a discount. Furthermore, what other facilities may be open to a similar claim and what will be the exposure beyond just cemeteries. Chairman Wells stated that there is a crisis as we try to pay for this large infrastructure investment under the court order and it is having a disproportionately impact on cemeteries. He noted that we have a crisis that impact non-profits, churches, universities and other facilities. The Mayor has put forth a \$6 million hardship fund. Meanwhile, DC Water in good faith has come forward to take care of cemeteries. Ms. Boardman stated her concern is a matter of policy and not a matter of law. Ms. Boardman inquired what other customers fall into this same category with low consumption and higher CRIAC. She mentioned that the next group may have a compelling need and have a large impervious area and they provide enormous social services and benefits to the citizens of the District of Columbia and where does this end. Mr. Gibbs commented that his concern is related to policy and that DC Water rate design must be transparent and defensible. Mr. Franco stated that there is an imbalance between the cemeteries water and sewer rates and the CRIAC. He said there is some justification for relief when you have a small water and sewer fee and such an exorbitant CRIAC. Mr. Ginacola stated that we should create a policy that states that the District should pay 50 percent of the Right-of-Way. Mr. Ross mentioned that we should prepare analysis for some thresholds based on percentage increase so that there is no focus on a particular group or one party.

Chairman Wells stated that DC Water has \$61.4 million in the Rate Stabilization Fund (RSF). Henderson Brown, Interim CEO/General Manager commented that the reason why we advanced the 50 percent credit off cemetery CRIAC was that it is a straw person and it could be a 40 or 85 percent credit, or something else. He mentioned that this is a problem we can solve and also gain some goodwill benefits and maybe limit the contributions being asked of DC Water. Ms. Boardman asked where is the support for the financial position for the 50 percent credit off cemeteries CRIAC. She inquired of the 14 cemeteries which ones have financial resources or problems. Henderson Brown, Interim CEO & General Manager replied that the financial element to DC Water was that a 50 percent credit off cemeteries CRIAC would provide relief of \$246,169, which is not an overly significant impact to our operation but could gain a lot of goodwill.

Action Items (Attachment E)

The Committee did not make a motion to take action on action item 1.

DC Retail Water and Sewer Rates Committee Workplan w/CRIAC Credit for Cemeteries (Attachment F)

Mr. Brown gave a brief update on the Committee workplan. Ms. Boardman inquired about item #2 Conduct a Review of the Impact of the CRIAC on Various Customers. Mr. Brown replied that the item came on to the workplan when his predecessor sat before this Committee. He stated that the new Customer Service Information System (ECIS) would have a field where additional information could be captured. The ECIS system has been implemented and the field needs to be populated. As part of the work under this item we have been able to understand the impact of the CRIAC on cemeteries and provide an ad hoc analysis on churches.

Other Business

No other business

Executive Session

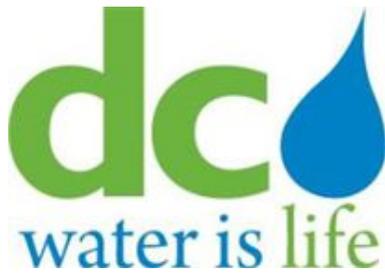
Vice Chairperson Curry made a motion to go into executive session. The Committee went into executive session and reconvened into open session..

Adjournment

The meeting was adjourned at 11:55 a.m.

FOLLOW-UP ITEMS – DC Retail Water and Sewer Rates Committee Meeting (March 27, 2018)

- 1) Provide the Committee an average customer monthly bill for all customer classes (Single family, Multi-family and Commercial) (Mr. Franco) **Status:** (March 2018) Completed
- 2) Provide an analysis on the typical residential customer bill to explore adding a third “higher” tier because the cost of delivering water to those customers is more than customers that use less than 6.2 Ccf. (Mr. Gibbs) **Status:** (April 2018)
- 3) Provide demographics of how many customers completed the Customer Satisfaction Survey and they represent what percent of our customer base. (Mr. Giancola) **Status:** (April 2018)
- 4) Provide a copy of the Customer Satisfaction Survey. (Mr. Franco) **Status:** (April 2018)



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

**Board of Directors
Finance & Budget Committee**

Thursday, March 22, 2018

11:00 a.m.

MEETING MINUTES

Committee Members (via conference call)

Timothy Firestine, Committee Chairperson
Tommy Wells, Board Chairman
Krystal Brumfield
David Franco
Sarah Motsch
Jed Ross

DC Water Staff

Henderson Brown, Interim CEO/General Manager
Matthew T. Brown, Chief Financial Officer
Meena Gowda, Acting General Counsel
Linda R. Manley, Board Secretary

Other Presenters and Guests

Dan Hartman, PFM Financial Advisors LLC

(via conference call)

Ryan Callender, Squire, Patton, Boggs
David Goodman, Squire, Patton, Boggs

Call to Order

Chairperson Timothy Firestine called the meeting to order at 11:00 a.m.

February 2018 Financial Report

Mr. Matthew Brown, CFO, provided the monthly financial report, noting that DC Water is on track and in line with budgetary expectations in all categories with the exception of capital disbursements. With approximately 42 percent of the fiscal year completed, total operating revenues are at \$263.7 million, or 42.5 percent of budget, operating expenditures at \$211.0 million, or 37.5 percent of budget and capital disbursements at \$236.0 million or 52.5 percent of budget.

Mr. Brown further explained that the lag in the residential, commercial and multi-family revenues is as a result of delayed billing due to the implementation of the new Customer Information System (eCIS), and other revenues from the Federal and Wholesale customers with quarterly billing cycles. Staff are currently resolving outstanding issues on revenues and will keep the Committee updated on progress. The favorable position of the operating expenditures is a result of underspending in various Operations & Maintenance (O&M) categories, and the Cash Financed Capital Improvements (CFCI), which is not yet applied but anticipated to be utilized by year-end. CFO Brown also reported the higher than budget spending in personnel services costs of approximately 4% is a result of the approved Board-ratified union

labor contract, other salary adjustments, overtime costs during the very cold winter season for emergency work on historically high water main breaks and the Automated Meter Reader (AMR) program. The underspending in contractual services is across the Authority and is not associated with any one contract.

For capital disbursements, the Authority is at \$1.0 million or 0.5 percent above the revised budget, with the overspending in additional capital programs. He further stated that the capital projects disbursements is consistent with the Board revised budget and that the detailed project performance will be reviewed by the Department of Engineering and Technical Services (DETS) in May. Also, he apprised the committee members that the preliminary mid-year projections for FY 2018 will be reviewed in May.

CFO Brown reported that the FY 2017 Intermunicipal Agreement (IMA) Operating Settlement is ongoing, with an expected completion date of March 31, 2018. The IMA Settlement is a reconciliation and is performed ninety (90) days after the Financial Statement audit is completed. If there is an over billing, a refund will be issued and if there was an under billing, a bill will be submitted to the wholesale customers.

Next, Mr. Brown provided an overview of management's meeting with Moody's Investors Services and Standard & Poor's rating agencies on March. 20, 2018. In response to Chairperson Firestine's enquiry, Mr. Brown reported that the Board-adopted budgets, ten-year financial plan and two-year rate proposals were presented, DC Water's strong management team and continuity were highlighted as strong factors and there were no concerns. There was a positive trajectory for Moody's. Mr. Firestine noted that wholesale customers' triple A rating and quarterly payments are also strong factors for DC Water's credit rating.

Operating Reserves Recommendation

CFO Brown, gave an overview of the recommendation to increase the reserve requirement from the current Board policy of 120 days of operating and maintenance (O&M) expenses or \$125.5 million, to 140 days of O&M expenses or \$140 million. The \$140 million amount is management's target and has been maintained by the Authority for several years, which has partly influenced the Authority's positive bond ratings. The Renewal and Replacement reserve of \$35 million will remain the same and is included in the Operating Reserve level. The Rate stabilization Fund (RSF) will also remain the same, and the Authority will continue the current practice of funding it with any surplus at year end. The Board exercises the right to use the RSF fund as needed for the stabilization of rates. Chairperson Firestine inquired if the RSF is required by the rating agencies. CFO Brown and Mr. Hartman noted that having an operating reserve provides a positive financial image for the Authority, but there are no requirements for how much should be in the RSF to maintain a favorable rating. The Committee deferred action on this recommendation.

Debt Structure Overview

Mr. Dan Hartman, PFM Financial Advisors, provided an overview of the 2018 bond issuance and market update. DC Water is planning to go to the bond market on April 17, 2018 to issue/price \$300 million in revenue bonds to fund part of its Capital Improvement Program (CIP). The bond issuance comprises of \$100 million in Series 2018A bonds for Clean Rivers project and \$200 million in Series 2018B for non-Clean Rivers projects. These bonds will be issued as long term fixed rate debt under the senior lien with term of up to 35 years.

Mr. Hartman stated that the Authority had used \$50 million in commercial paper through March 2018 and will be using \$90 million, out of the Series B bonds for non-Clean Rivers projects, to reimburse the commercial paper drawdown and provide interim funding until the close of the deal anticipated on May 1, 2018.

Mr. Hartman provided an extensive review of the debt service payment structure, economic outlook, including the interest rates and the Fed's intent to raise rates in the future, and the underwriters to be used for the deal. DC Water expects to affirm the credit rating from Moody's and Standard & Poor's, in addition to the green bond rating from Moody's.

The Committee's recommendation for Board approval was requested for the following prior to the issuance/pricing - Authorizing Resolution; 23rd Supplemental Indenture; Bond Purchase Agreement; and Preliminary Official Statement. DC Water's bond counsel for this deal is Squire, Patton, and Boggs; and financial advisor is Public Financial Management (PFM).

Proposed Work Plan - Path to Achieve Asset Management

CFO Brown provided the background and milestones for the proposed work plan resulting from the adoption of the FY 2019 budgets and the Board's directive for the Authority to advance Asset Management based CIP while addressing customer affordability as part of the . This would require collaborative efforts with individual committee assignments for the review of five major areas - investment in infrastructure, alternative revenue sources, customer outreach/education, impact on financial plan and customer affordability.

Mr. Brown mentioned that the Executive Team will be leading these efforts to understand what our utility peers are doing as it relates to controlling costs, explore alternative revenue sources, conduct a series of town hall meetings to further communicate with our customers on the asset condition and learn about the impact of the water bills, determine appropriate levels of debt and Pay-Go, as well as customer affordability. For the Finance and Budget Committee, deliverables on the alternative revenue sources and impact on the financial plan are anticipated in May/June and will also be reviewed jointly with the Retail Rates Committee.

Chairman Wells indicated that the Authority has been experiencing a lot of increased scrutiny on ways to save money. He suggested that the peer review analysis should incorporate how cost savings are being achieved by other utilities, what portions of their revenue are used for debt financing and staffing, review of peer utilities with federally managed CSO projects etc. Mr. Franco stated that the asset management plan process should also include examining the rate structure of other utilities with similar infrastructure needs as it relates to court mandates, and explore other tools required to achieve the asset management plan while maintaining the current rate proposals. Board Member Franco tasked management to identify the gap in revenues for the District to fund the clean rivers project to build a case for asking the District and Federal government to pay their share of the project cost.

CFO Brown recommended that the Finance and Budget and the DC Retail Water & Sewer Rates Committees should have a joint meeting to review the deliverables identified for each committee to avoid overlapping presentation of the alternate revenue sources.

Action Items

The committee members recommended that the action items for the 2018 A&B Bond resolution and related documents be moved to the full Board for consideration.

Adjournment

Hearing no further business Committee Chairperson Firestine adjourned the meeting at 11:55 a.m.

Follow Items

1. Provide breakdown of the operating reserves and update the action item to reflect the use of RSF for one or more Board “rate” objectives **(Chairperson Firestine)**
2. Breakout the Renewal and Replacement requirement of \$35 million in the monthly financial report **(Chairperson Firestine)**
3. Provide the history of the RSF, funding levels and usages **(Chairman Wells)**
4. Provide the Rate Stabilization Fund Policy to the F&B Committee members **(Mr. Franco)**
5. Identify and provide the list of peer utilities and preliminary findings for committee review **(Chairperson Firestine)**



CEO and GENERAL MANAGER'S REPORT

Henderson J. Brown, IV (acting) – April 2018

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Interpretation of Charts A

Color Key

Red	Did not meet Target
Yellow	Missed Target but within acceptable range
Green	Met/Exceeded Target
Gray	Budget/Target Value
<transparent>	Green/Yellow/Red based on comparison

Message from the CEO/GM

March was a very busy month. Significant progress was made on several fronts.

Council Oversight Hearing

DC Water's annual Council Oversight Hearing before the Committee on Transportation and the Environment was held on Friday, March 2, the day after our last Board meeting. Committee Chair Mary Cheh asked challenging, fair questions on a variety of topics including the CRIAC, the new water quality standards proposed by the Department of Energy and the Environment (DOEE), retail rates and the costs of capital programs. Several of her colleagues also attended, including councilmembers Charles Allen, Trayon White, Brandon Todd and Vincent Gray.

I am grateful to the staff members who spent hours compiling responses to the written questions sent by the Committee in advance, and preparing me for the hearing. The time and focus devoted to the prep sessions was well spent. It helped shape every answer given at the hearing.

The Committee also sent a short set of follow-up questions. We responded to those questions on March 22, 2018. This week, on March 27, 2018 Vincent Morris and I met with Council Member Cheh. I do not anticipate any significant follow up related to the hearing.

Town Hall Meetings

Our series of Town Hall Meetings kicked off on Tuesday, March 27 in Ward 2. I have been looking forward to this opportunity to connect with customers in person and learn what matters to them. It is an important part of our bi-annual process tied to the setting of rates for water and sewer services. Meetings are held in each ward to maximize convenience for residents. The full schedule, with confirmed locations appears below:

Ward 1 - Thursday, March 29

Location: DC Housing Finance Agency, Auditorium
815 Florida Avenue, NW, Washington, D.C. 20001

Ward 2 - Tuesday, March 27

Location: School Without Walls at Francis-Stevens, Auditorium
2425 N St NW, Washington, DC 20037

Ward 3 – Tuesday, April 3

Location: University of the District of Columbia Student Center, Ballroom A
200 Connecticut Ave NW, Washington, DC 20008

Ward 4 – Thursday, April 5

Location: Paul Public Charter School—Auditorium
5800 8th St NW, Washington, DC 20011

Ward 5 – Thursday, April 19

Location: Trinity University Main Hall, O'Connor Auditorium
125 Michigan Ave NE, Washington, DC 20017

Ward 6 – Tuesday, April 17

Location: Payne Elementary School, Gymnasium
1445 C St SE Washington, DC 20003

Ward 7 – Thursday, April 26

Location: IDEA Public Charter School, Cafeteria
1027 45th St NE, Washington, DC 20019

Message from the CEO/GM

Ward 8 – Tuesday, April 24

Location: Matthews Memorial Baptist Church
2616 Martin Luther King Jr Ave SE, Washington, DC 20020

The first meeting in Ward 2 was held March 27, 2018. Issues of interest were rising CRIAC charges (raised by the representatives from the Archdiocese and the Consumer Utilities Board), concerns about disruption that might be caused by installation of Green Infrastructure (GI) along or near the Georgetown Waterfront or alternatively by construction of tunnels if GI does not prove to be efficacious (raised by ANC members and a local resident). As this report is being written, preparations are underway for the Ward 1 meeting scheduled for March 29, 2018.

Meeting with Councilmember Trayon White

On March 29, Vince Morris and I met with Council Member Trayon White. We discussed DC Water's performance on jobs creation, the impact of the Clean Rivers Impervious Area Charge on churches, the Mayor's suggestions regarding a three year freeze on rate increases, and proposed hardship fund, the need to provide relief to customers other than single family residents, and the rationale for the federal government's payment of DC Water's Impervious Area charges but not the District's. It was a good meeting and hopefully the beginning of an ongoing dialogue.

DC Infrastructure Academy Opening

The unique partnership between the District Government' Department of Employment Services (DOES), private utilities (Washington Gas, PEPCO-Exelon, Verizon), DC Water, WMATA and The University of the District of Columbia was launched on March 19th. The academy, located in Ward 8 will train D.C. residents for careers in transportation, energy, utilities, and IT infrastructure. Graduates will earn journeyman licenses in specialized trades after four years of progressive study and on the job training. DC Water is an enthusiastic participant. We will provide instruction and training curricula. We have also signed a Memorandum of Understanding that commits DC Water to consider Academy graduates for career opportunities at DC Water.

DC Environmental Network Meeting

After an exchange of blog posts regarding the purposes behind DC Water's comments submitted to the record on DOEE's proposed new E. coli regulation, DC Water accepted an invitation from the DC Environmental Network to attend a meeting in which the Sierra Club and representatives from the Potomac and Anacostia River Keepers presented the rationale for their opposition to DC Water's Comments. Maureen Holman, Saul Kitner, Matt Ries, and John Cassidy and I attended. The ground rules were that the DC Water attendees would listen and participate in a conversation after the presentation. The encounter was excellent. So excellent that DC Water committed to manage the next program, which will explain our concerns regarding the proposed regulations. The conversation about high flow exemptions and whether existing standards are sufficient to protect water quality will be an extended one. There are sure to be points of disagreement, but all present saw value in continuing the conversation.

Strategic Plan

The internal executive team and working group has continued to work on a framework for adjustments to the Blue Horizon 2020 Strategic Plan. The work product will be ready for presentation to the Strategic Planning Committee in the May timeframe, subject to the Chairperson's discretion. The document that will be presented to the committee will contain sufficient detail for the committee to commence its work on this critical statement of organizational priorities.

Message from the CEO/GM

Commissioning of the Anacostia River Tunnel

March 28, 2019 is a day that will be celebrated in the history of the Anacostia River for decades to come. The tunnel, which connects with the Blue Plains Tunnel and the Tunnel Dewatering Pump Station and Wet Weather Treatment Facility at Blue Plains will remove 80 percent of Combined Sewer Overflows (CSOs) to the Anacostia River. It marks the midway point of achievement in the CSO Long Term Control Plan. This is a generation changing achievement for which every team member and board member, past and present, should be proud. Completion of this tunnel system is a milestone that will change every future discussion about efforts to clean up the Anacostia River.

Congratulations to everyone who played a part in this journey that began with the public comment period for the Long Term Control Plan in 2001, execution of the third party consent decree in 2003, and execution of the consent decree among the District of Columbia, DC Water and the United States in 2005. When the Northeast Boundary Tunnel is completed on or before March 23, 2023, 98 percent of CSOs to the Anacostia will be intercepted and treated at Blue Plains.

External Affairs

Government Relations

- This month was extremely busy because it marked DC Water's once a year oversight hearing before the DC Council.
- Prior to and leading up to the hearing, this team was very busy assembling responses and working with the interim GM on his first appearance before the Council.
- Working with multiple council offices on the priorities of their constituents and areas of concern occupied a lot of time.
- We also worked with DC officials on the opening of the Infrastructure Academy and participated in the opening ceremony.
- This month also marked the publication of our annual report. We made sure that hand signed copies of the report and letter were delivered to each council member.
- Government affairs joined the interim GM in a meeting with the DC Environmental Network to discuss water quality discharge standards. That issue is ongoing.
- Finally, government affairs continued work from last year to educate Congressional staff on the merits of DC Water taking over the Washington Aqueduct. We held another meeting with Rep. Norton's staff and did extensive outreach to other staff. We are also participating in an internal strategic group leading this project.

Media Relations

- OEA is pitching the Clean Rivers celebration to all journalists who have covered the tunnel and to all local, national and trade outlets. OEA is also putting the announcement over the wires for national/international and environmental media coverage.
- We worked with a Washington Post reporter to turn what might have been a negative story into a very positive story for DC Water about our green infrastructure training program. We were able to connect the reporter with one Ward 7 resident to feature and shadow in his work. We met the reporter on site and facilitated interviews. The story ran on the front of the Metro section of the Post.
- In addition OEA responded to a number of media calls surrounding customer complaints and water main breaks.

Message from the CEO/GM

Media Coverage

- [Wilson Leads Fight Against Exorbitant Water Bills](#)
(Afro American / February 15, 2018)
- [Waste resource recovery pushes into cash recovery programs](#)
(Daily Commercial News / February 23, 2018)
- [Going With The Flow](#)
(Modern Steel Construction / March 5, 2018)
- [D.C. Residents Set to Fight High Water Bills](#)
(Afro American / March 7, 2018)
- [Councilmember Questions DC Water Rate Proposal: 'It Looks Like Kind of A Shell Game'](#)
(NBC Washington / March 9, 2018)
- [Here's Why Utilities Should Talk To Their Ratepayers](#)
(Water Online / March 12, 2018)
- [A program that builds green infrastructure in the D.C. area sustains the environment, local workforce](#)
(Washington Post / March 13, 2018)

Customer Newsletter

The March What's on Tap features a cover story about DC Water Works, a teaser about the Town Hall Meetings, a GM message inviting the public to attend the Town Hall meetings, and an article on Drug Take Back Day to dispose of unwanted medications. It also included information on volunteering at one of the Earth Day clean-up events.

Drinking Water Marketing and Communications

- DC Water, The National Park Service, conservation associations (i.e. Anacostia Watershed Society), and other stakeholders are promoting the Year of the Anacostia (YOTA). EA staff produced a video series for social media highlighting DC Water's skimmer boats, promoting tap water as a viable means to reduce plastic consumption, and to clarify the source of our drinking water (i.e. we are dedicated to cleaning all waterways like the Anacostia River, and we get our drinking water from the Potomac). EA staff have participated in several calls and meetings to assist with promotional efforts that include advertising YOTA, developing messaging and graphics for the YOTA campaign, highlighting YOTA-related events in "What's On Tap" and online, hosting AWS stewards at Blue Plains, and inviting groups to the Clean Rivers Celebration in late March.
- External Affairs staff continue to have a strong presence in regional workgroups. DC Water is participating in the newly-formed Interagency Working Group for Healthy Housing to produce content for public access television educating the public about lead exposure. Partnering agencies include the Department of Energy and Environment, Lead Safe DC, DC Department of Health, and the District Department of Housing and Community Development. External Affairs staff are collaborating with these agencies to collate the extensive previously-produced publications and materials on lead exposure into a single item that District pediatricians can distribute to new and expecting parents with information to prevent lead exposure. This endeavor will reduce redundant efforts to more effectively deliver critical information on lead risk and water quality to vulnerable populations.
- DC Water established a strong, engaging presence at the 2018 NBC4 Health and Fitness Expo March 10-11. Over 85,000 residents of the region attended the event. DC Water joined COG's Community Engagement Campaign for a booth titled "What's Water Got to Do with It?" External

Message from the CEO/GM

Affairs staff engaged with customers face to face to answer questions about water quality, shared information on the progress of DC Water's wide-ranging initiatives, and facilitated informative dialogue on a wide range of issues. In addition to direct customer engagement, External Affairs staff conducted a tap versus bottled water taste test, and other educational and interactive activities.

Meetings/Presentations/Events

- In partnership with the Executive Office of the Mayor, Department of Energy & Environment, District Department of Transportation and Department of Parks and Recreation, DC Water provided its Cooling Station, Quench Buggy and water bottles in support of the Frederick Douglas/Oxon Run 5K event. This event is one of many others listed under this year's 'Year of the Anacostia' (Y.O.T.A.) promotional theme.
- As one of its final outreach activities in support of the Anacostia 2nd High Residential Pressure Reducing Valve Installation Project, DC Water has been returning to all Ward 8 ANCs with a request that they assist us in reaching out to those remaining residents whom have not yet submitted signed agreements allowing installation of a PRV in their homes. As part of this, DC Water attended ANC 8B's February monthly meeting to share the list of those remaining residents specifically within ANC 8B.
 - DC Water also attended ANC 8D's February monthly meeting to share the list of those remaining residents specifically within ANC 8D.
- DC Water attended the February monthly meeting of ANC 3F to provide updates on this Water Meter Rehabilitation Project, as it affects that ANC.
- As part of its Environmental Education program, DC Water visited HD Cooke Elementary School to provide a lesson for a mixed group STEM class (ranging from Kindergarten-2nd grade) using our Enviroscape interactive learning tool.
- In partnership with Metropolitan Washington Council of Governments, DC Water participated in the 25th Annual NBC 4 Health & Fitness Expo. For this two-day event held at the Walter E. Washington Convention Center, there were 85,000 registered participants.

Tours

- 2 Adults, DC Residents
- 15 Adults, Guests of Alterra
- 19 Adults, DC Residents
- 12 Adults, DC Dept. Of Energy and Environment
- 17 Adults, Civil Servants (Guests of Maureen Holman)
- 24 Students, 1 Adult, Gonzaga High School
- 40 Students, Georgetown University
- 30 Students, 2 Adults, Stoneridge School
- 7 Adults, DC Residents

Message from the CEO/GM

DC Water Website – www.dewater.com

Sessions

61,417

Pages / Session

2.44

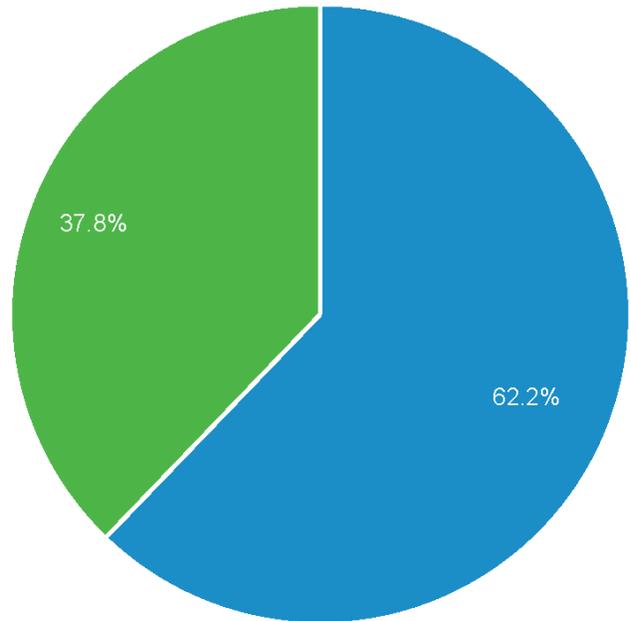
Avg. Session Duration

00:02:15

Bounce Rate

29.76%

■ New Visitor
 ■ Returning Visitor



Top 10 Visited Webpages

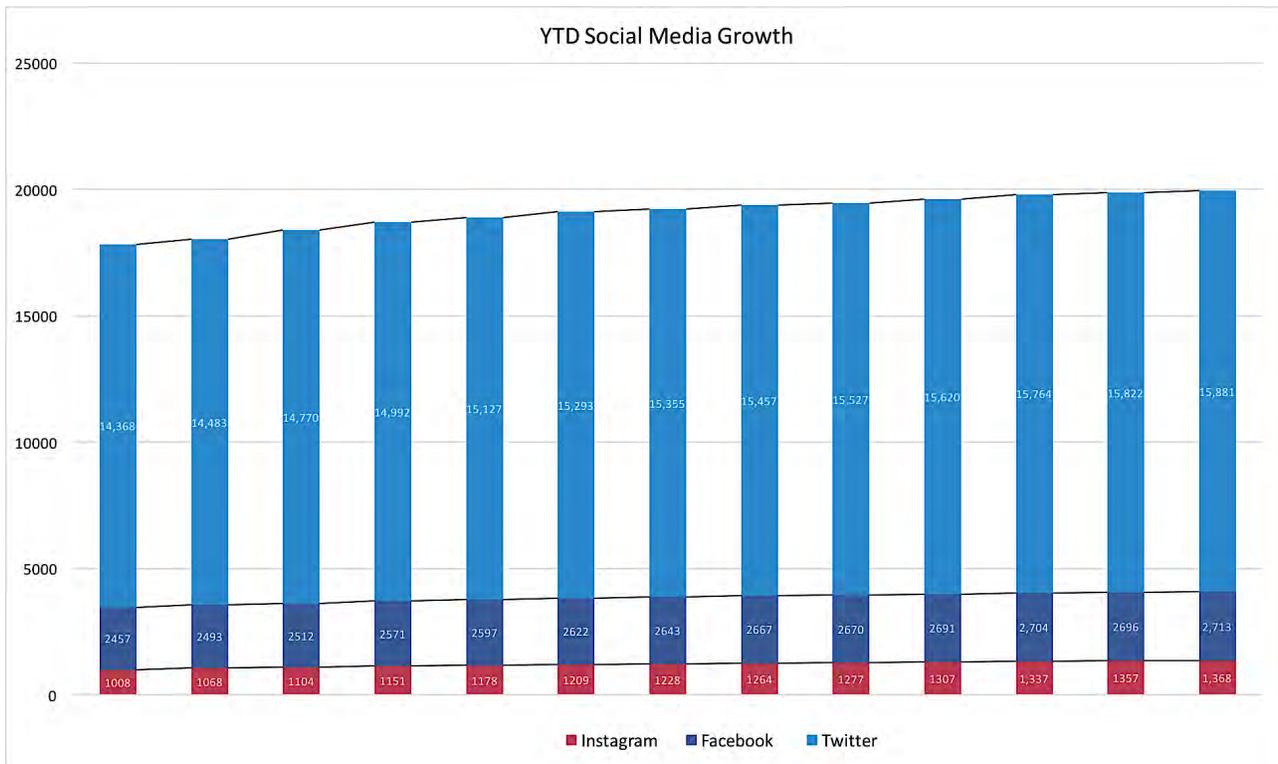
Page	Pageviews	% Pageviews
1. /default.cfm	37,037	24.74%
2. /my-dc-water-upgrade	32,561	21.75%
3. /paying-your-bill	10,920	7.30%
4. /careers	7,205	4.81%
5. /contact	4,845	3.24%
6. /payment-and-billing	3,023	2.02%
7. /projects	2,013	1.34%
8. /board-of-directors	1,311	0.88%
9. /rates-and-billing	1,311	0.88%
10. /internal-job-board	1,171	0.78%

Message from the CEO/GM



	■ FACEBOOK ■ TWITTER ■ INSTAGRAM			
Audience Growth Metrics	Totals		Change	
Total Fans	19,951	▼	11.3%	Total followers increased by ▲ 0.6% since previous date range
New Facebook Fans	-			
New Twitter Followers	138	▲	0.7%	
New Instagram Followers	22	▲	1.6%	
Total Fans Gained	164	▼	11.3%	

Social Media



ORGANIZATIONAL PERFORMANCE DASHBOARD (February 2018)

Financial Highlights

Net Operating Cash		Operating Revenues		Operating Expenses		Capital Disbursements	
Actual	57,569	Actual	259	Actual	211	Actual	236
Target	34,440	Target	257	Target	234	Target	161
	(\$ thou)		(\$ mil)		(\$ mil)		(\$ mil)
Operating Cash Balance		Delinquent Account Receivables		Core Investments Yield		Short Term Investment Yield	
Actual	160	Actual	3	Actual	1.6	Actual	1.15
Target	126	Target	3	Target	2.29	Target	1.64
	(\$ mil)		(%)		(%)		(%)

Customer Care and Operations Highlights

Call Center Performance		Command Center Performance		First Call Resolution		Emergency Response Time	
	85		85		75		90
Feb	88	Feb	92	Feb	80	Feb	100
	(% of calls rec)		(% of calls rec)		(% of calls rec)		(% of calls rec)
Fire Hydrants out of Service		Fire Hydrant Insps. and Maint.		Fire Hydrants Replaced		Permit Processing within SLA	
	51		29		250		92
Feb	(count)		(count)	Feb	(YTD count)		(%)

Low Income Assistance Program

Splash Contributions		Customer Assistance Program	
Actual	42	Previous	230
Target	33	Current	102
	(\$ tho)		(\$ tho)

Operational Highlights

Lead Concentration (ppb)		Total Coliform Rule (%)		Biosolids Production		Total Nitrogen (lbs/yr mil)	
	5		0.0%		470		2.89
	(ppb)		(%)		(wet tons)		(lbs/yr mil)
Plant Effluent Flow (gal mil)		Excess Flow		Water Main Leaks		Water Valve Leaks	
	286		110		25		0
	(gal mil)		(gal mil)		(count)		(count)
Non-Revenue Water		Sewer Main Backups		Sewer Lateral Backups		Dry Weather CSO	
Sold	NA		14		103		0
Purchased	NA		(count)		(count)		(events)
	(CCF mil)						
Recruitment Activity		Electricity Usage		Employee Lost Time Accidents		Vendor Payments	
Filled	15		16		6	Actual	97
Open	18		(MWh)		(count)	Target	97
	(count)						(%)

FINANCIAL HIGHLIGHTS

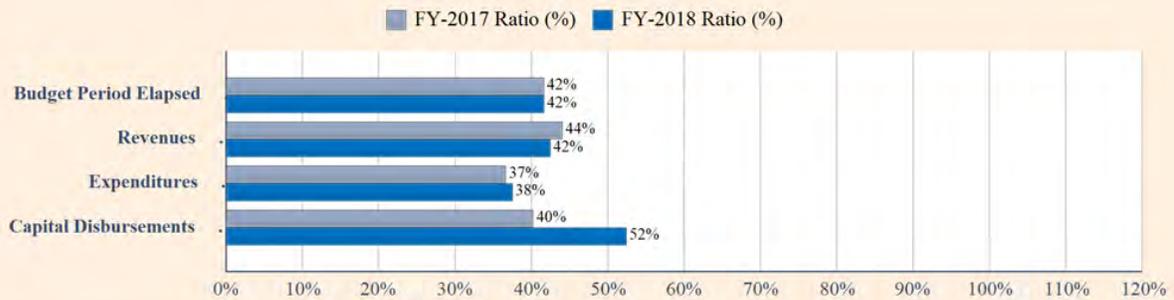
FINANCIAL PERFORMANCE SUMMARY

REVENUE, EXPENDITURE, CAPITAL DISBURSEMENT

Cumulative Revenue, Expenditure & Capital Disbursements compared to Budget

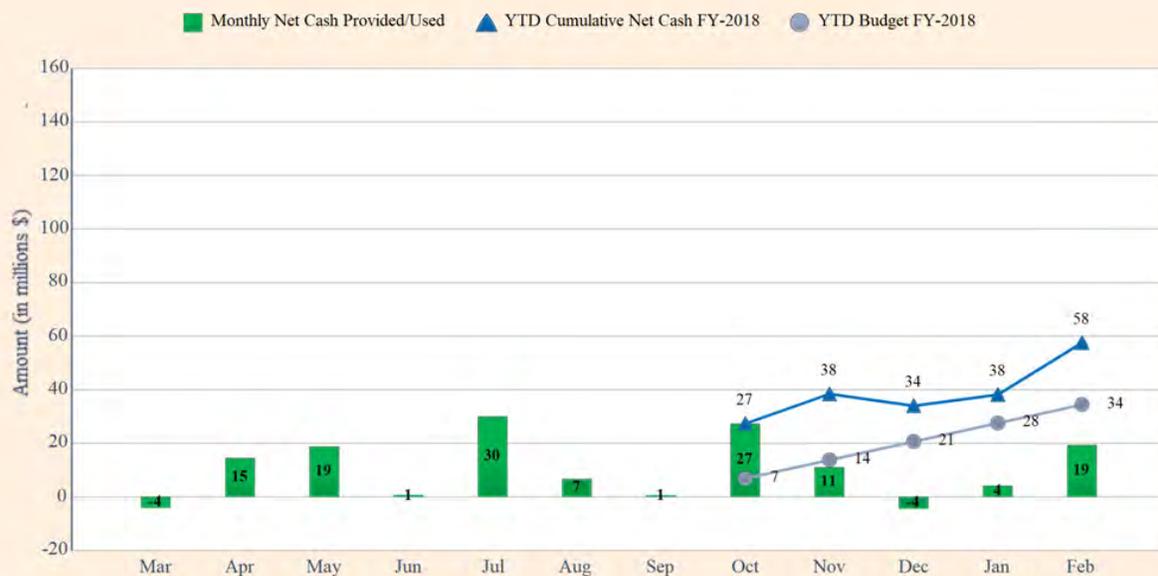


YEAR TO DATE ANALYSIS



NET OPERATING CASH

Monthly and YTD Net Operating Cash Provided / Used compared to Budget



Net cash to date for February was above budget by \$23 Million

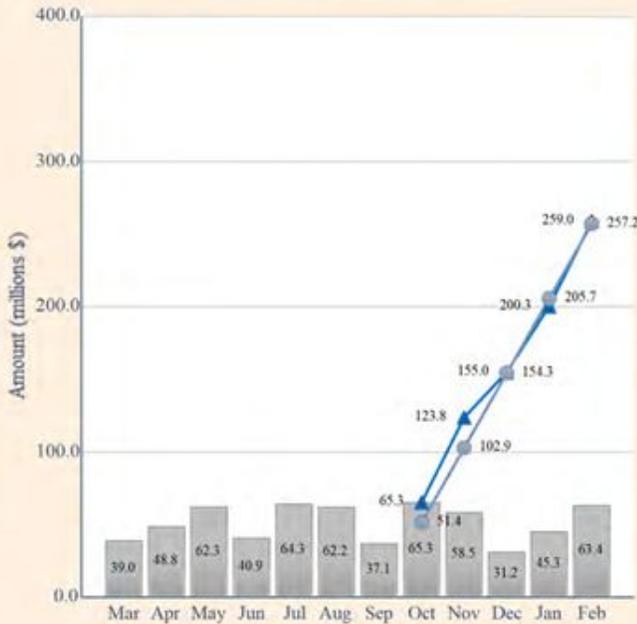
FINANCIAL HIGHLIGHTS

REVENUES AND OPERATING EXPENSES

OPERATING REVENUES

Monthly & Cumulative Revenue compared to YTD Budget

- Actual Monthly Revenue
- ▲ YTD Cumulative Revenue FY-2018
- YTD Cumulative Budget FY-2018

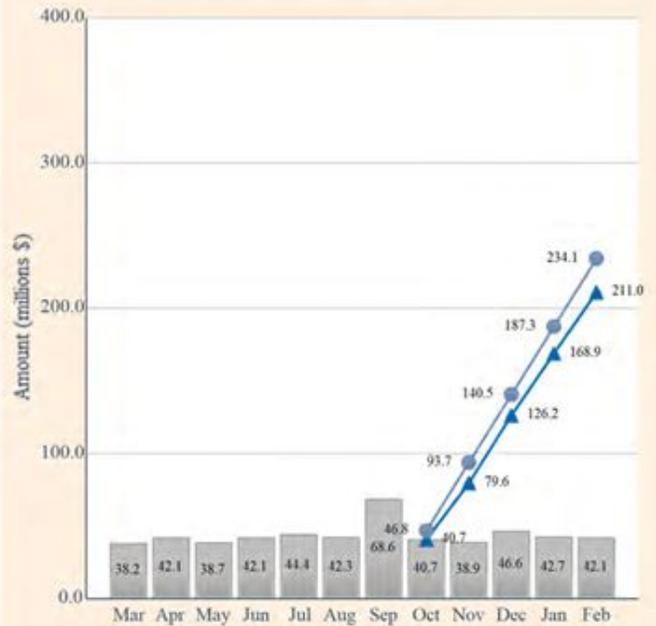


Revenue to date for February was below budget by \$7 Million

OPERATING EXPENSES

Monthly & Cumulative Expenditure compared to YTD Budget

- Actual Monthly Expenses
- ▲ YTD Cumulative Expenditure FY-2018
- YTD Cumulative Budget FY-2018



Expenditure to date for February was below budget by \$23 Million

CAPITAL SPENDING

CAPITAL DISBURSEMENTS

Monthly & Cumulative Disbursements compared to YTD Budget

- Actual Monthly Disbursements
- ▲ YTD Cumulative Disbursements FY-2018
- YTD Cumulative Budget FY-2018



Disbursements to date for February was above budget by \$75 Million. YTD Spending reflects comparison to the straight lined approved budget.

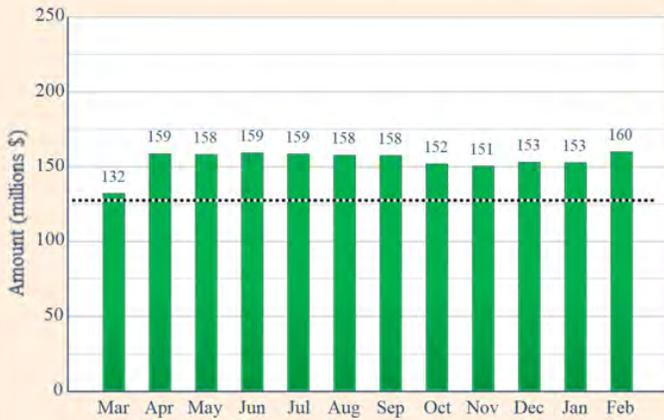
FINANCIAL HIGHLIGHTS

OPERATING CASH AND RECEIVABLES

OPERATING CASH BALANCE

Average Daily Cash Balance compared to Operating Reserve Target

- Actual Cash Balance FY-2018
- Operating Reserve Target - (125.5 Million)



Cash Balance for February was above target by \$30 million

DELINQUENT ACCOUNT RECEIVABLES

Delinquency & Receivables to Revenue Ratio compared to Target

- Receivables to Revenue Ratio
- Delinquencies (in millions)
- Target: Receivables to Revenue Ratio (3%)



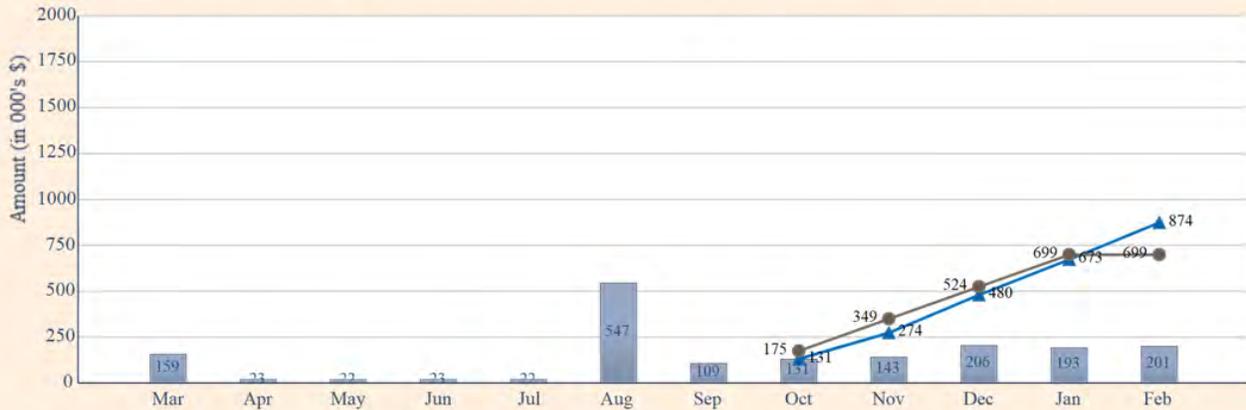
February Receivables to Revenue Ratio info is pending, Delinquency info is pending

INVESTMENT EARNINGS

INVESTMENT CASH EARNINGS

Monthly & Cumulative Earnings compared to YTD Budget

- Monthly Earnings
- YTD Cumulative Earnings FY-2018
- YTD Cumulative Earnings Budget FY-2018



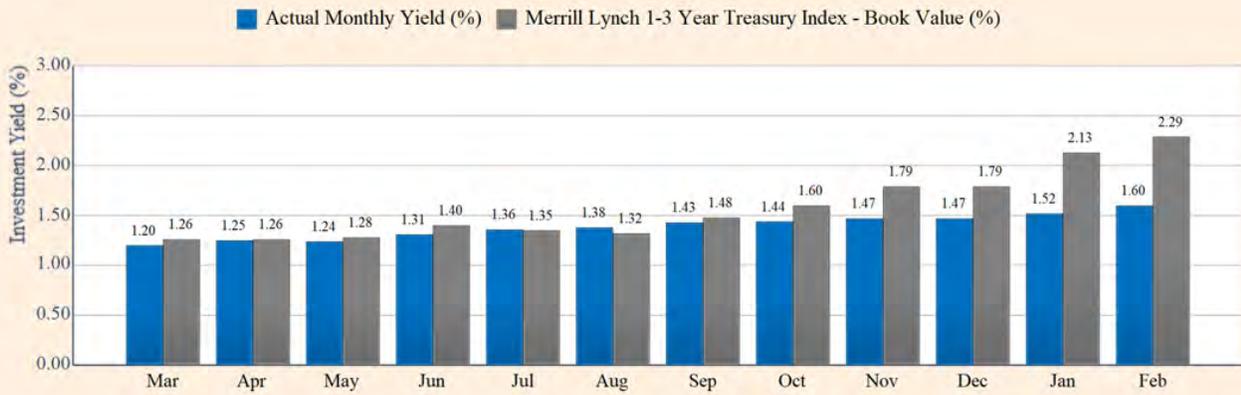
Earnings to date for February were above Projected Budget by \$175,000

FINANCIAL HIGHLIGHTS

INVESTMENT YIELD

CORE INVESTMENTS YIELD

Monthly Yield compared to Merrill Lynch Benchmark



Yield for February was more than the treasury index by 0.69%

SHORT TERM INVESTMENT YIELD

Short Term Yield compared to Merrill Lynch Benchmark



Short Term Yield for February was less than the Merill Lynch yield by 0.5%

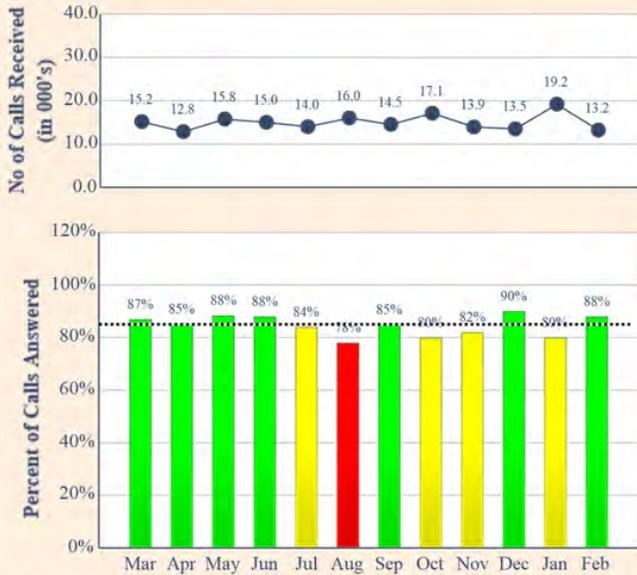
CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

CUSTOMER SERVICE

CALL CENTER PERFORMANCE

Calls Answered within 40 Seconds compared to Target

- Call Center: Calls answered (%)
- No of Calls - Call Center (in 000's)
- Target - Call Center (85%)

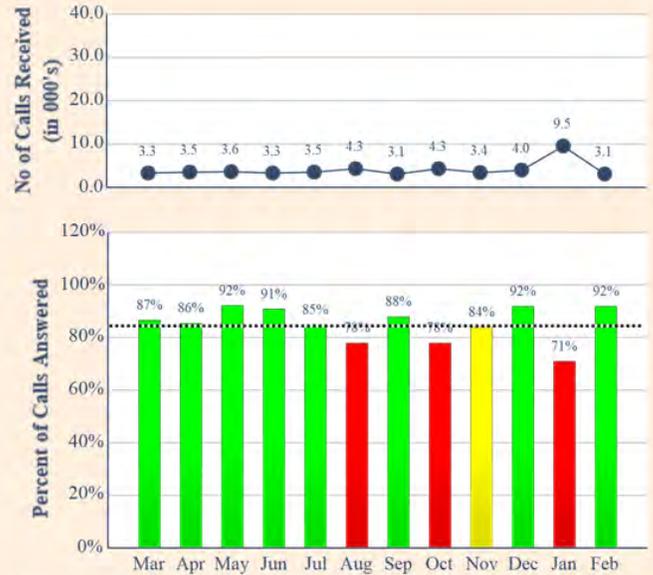


Performance for February was above target by 3%

COMMAND CENTER PERFORMANCE

Calls Answered within 40 Seconds compared to Target

- Command Center: Calls answered (%)
- No of Calls - Command Center (in 000's)
- Target - Command Center (85%)

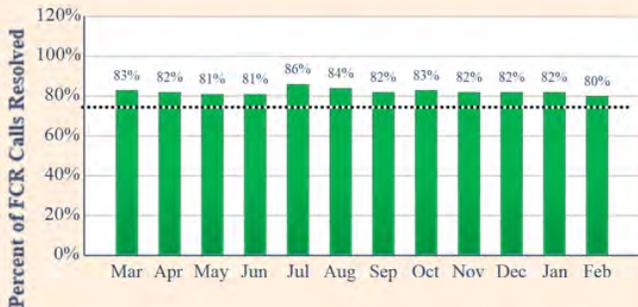


Performance for February was above target by 7%

FIRST CALL RESOLUTION (FCR)

Calls resolved on first contact compared to Target

- FCR (%)
- FCR Target (75%)

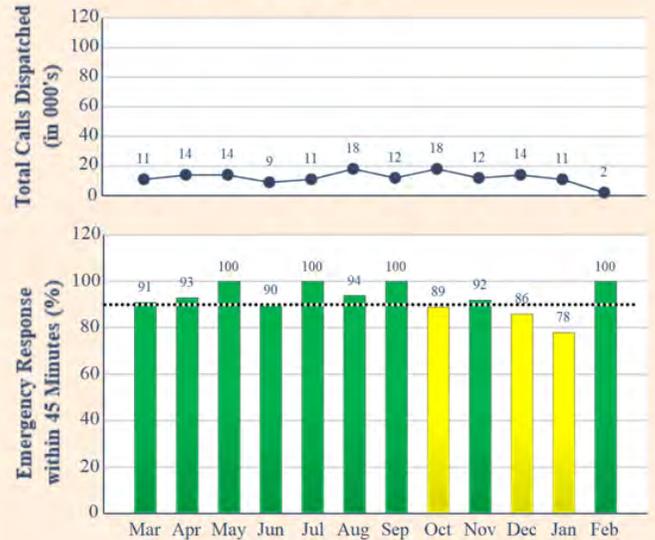


Performance for February was above target by 5%. Note December and January is an average of information received during the current fiscal year.*

EMERGENCY RESPONSE TIME

Calls responded to within 45 Minutes compared to Target

- Response (%) within Target
- Total Emergency Calls Dispatched
- Response Target (90%)



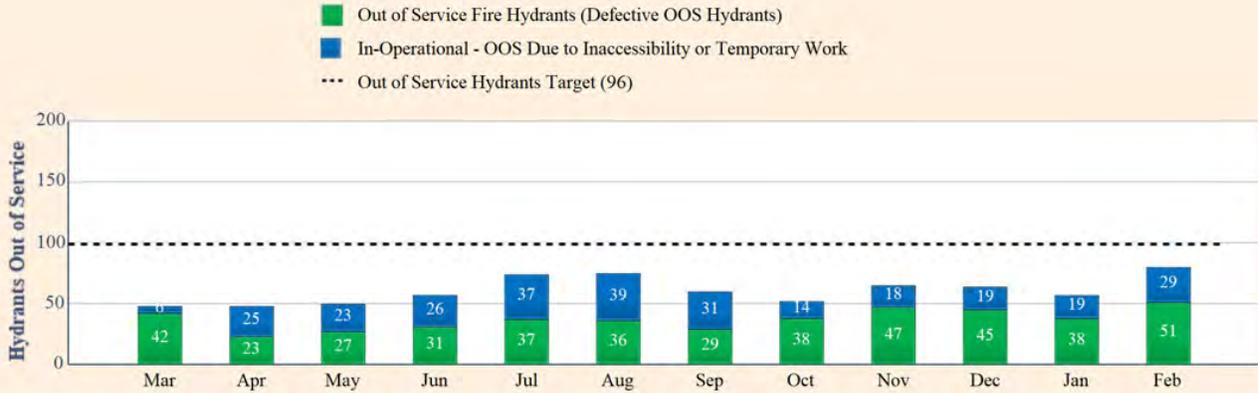
Performance for February was above target by 10%

CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

FIRE HYDRANTS

Fire Hydrants Out of Service (OOS)

Total Hydrants Out of Service against Target



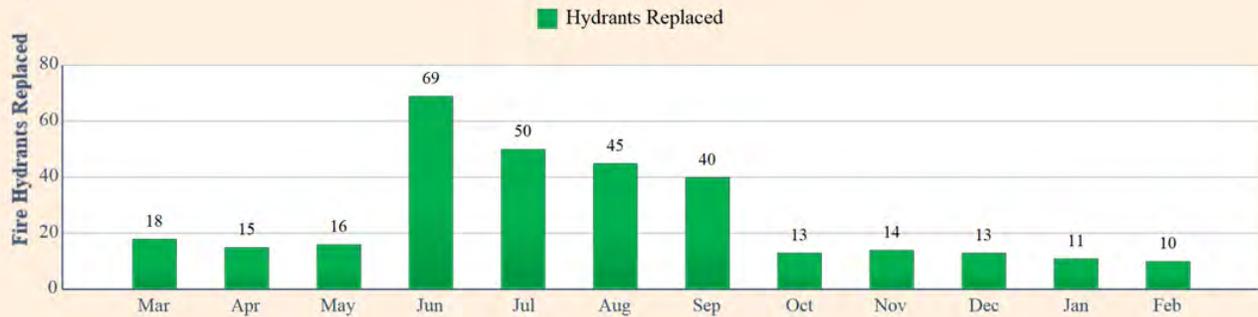
Fire Hydrant Inspections and Maintenance

Total Hydrant Inspection and Maintenance Work Orders Completed per Month



Total Hydrant Replacements Per Month

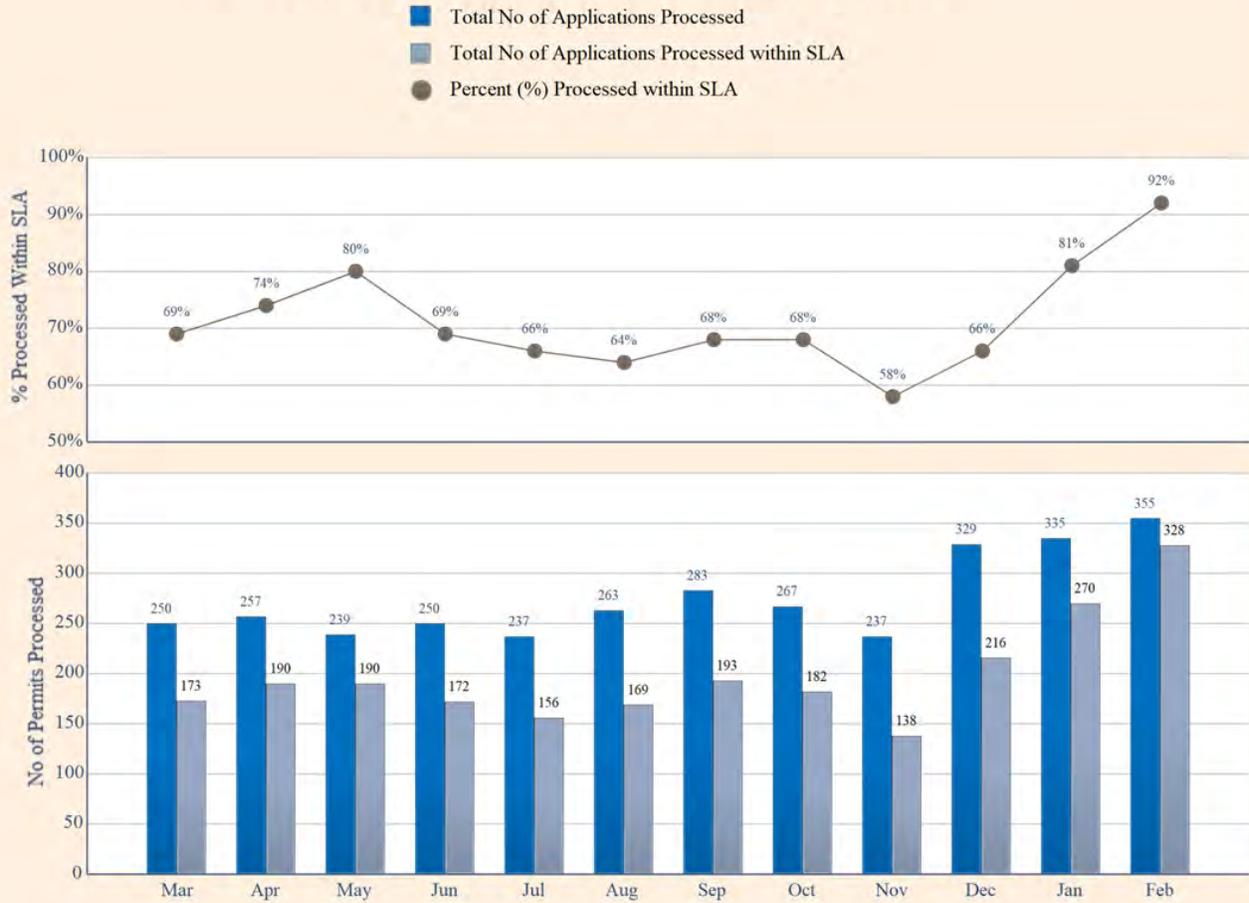
Annual Replacement Target (250)



CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

PERMIT PROCESSING

PERCENT OF APPLICATIONS PROCESSED WITHIN SLA



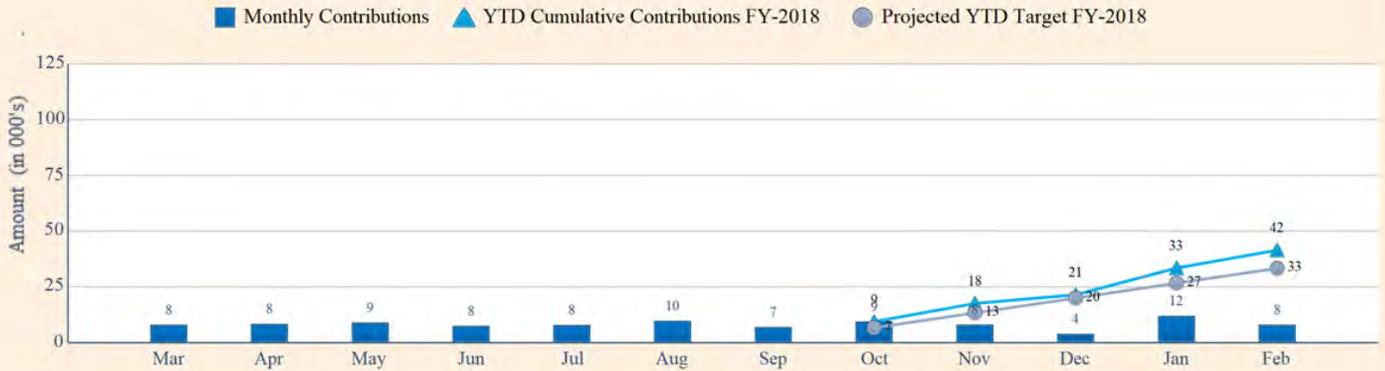
Permits not processed within SLA in February were 8%. Note that different SLA's range from 7 days to 45 days

LOW INCOME ASSISTANCE PROGRAM

SPLASH PROGRAM

SPLASH CONTRIBUTIONS

Monthly and Cumulative Contributions compared to YTD Target

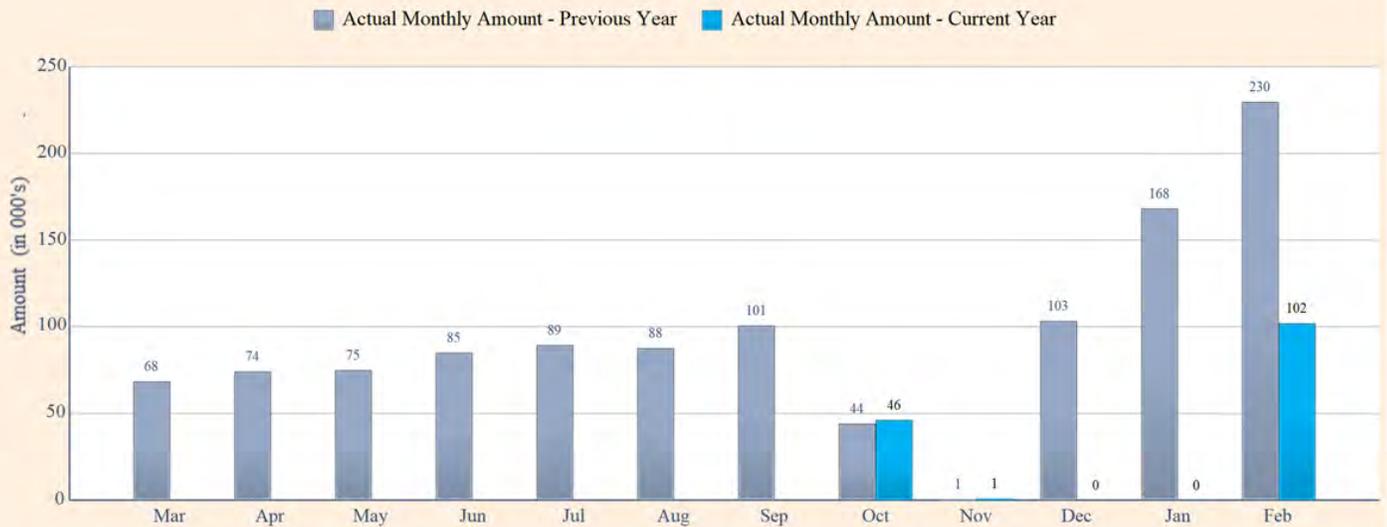


Total SPLASH Contributions to date for February were above target by \$8,177

CUSTOMER ASSISTANCE PROGRAM (CAP)

CUSTOMER ASSISTANCE PROVIDED

Monthly Assistance Provided compared to corresponding Previous Year Periods



OPERATIONAL HIGHLIGHTS

DRINKING WATER QUALITY

LEAD AND COPPER RULE (LCR) COMPLIANCE

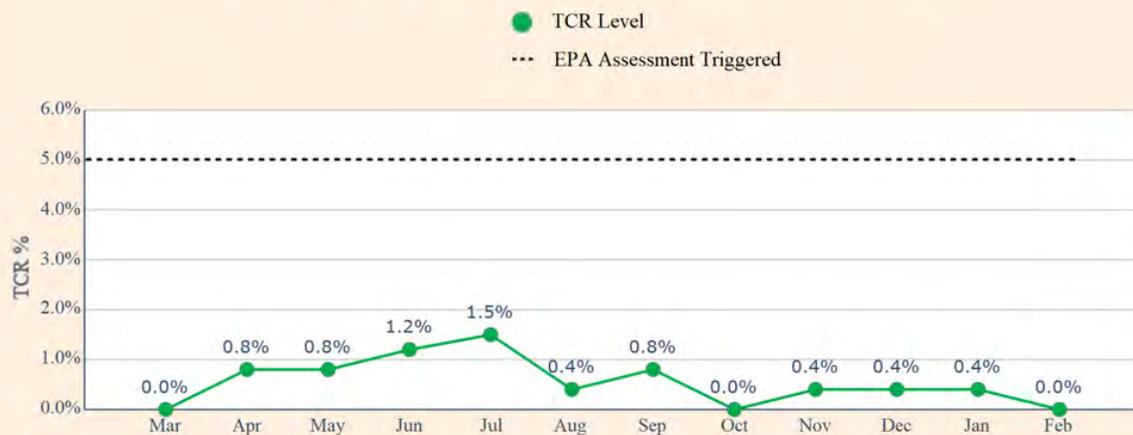
Semi-Annual LCR Monitoring Results



Jan-Jun 2018 results to date

TOTAL COLIFORM RULE (TCR) COMPLIANCE

Total Coliform Positives compared to EPA Maximum Contaminant Level (MCL)



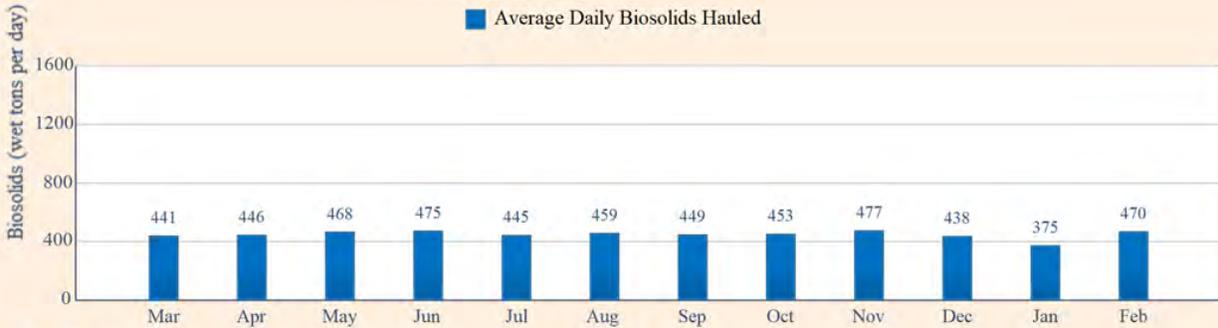
Coliform Positive was recorded at 0.0% in February

OPERATIONAL HIGHLIGHTS

WASTEWATER TREATMENT

BIOSOLIDS PRODUCTION, Feb - 2018

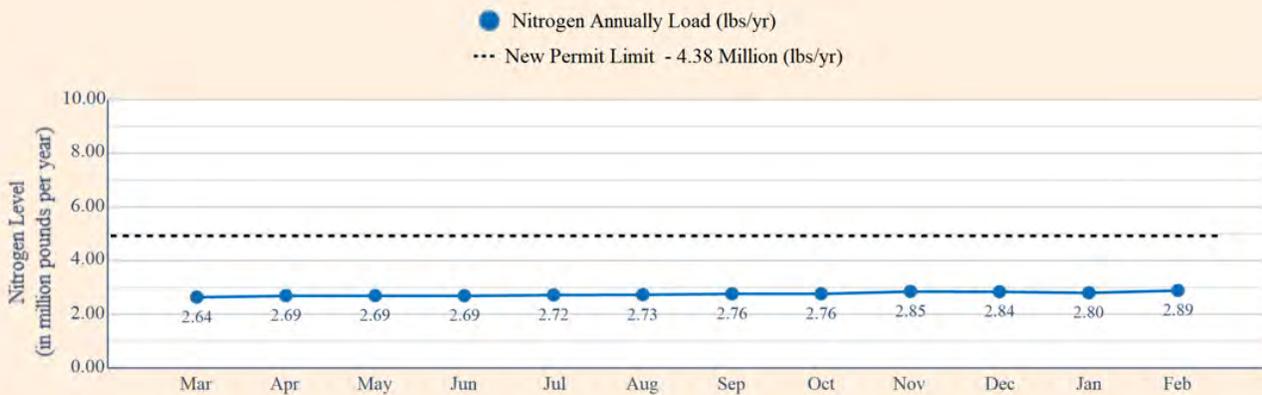
Average Daily Biosolids Production



Biosolids Daily Production for February were 470 wet tons per day

TOTAL NITROGEN

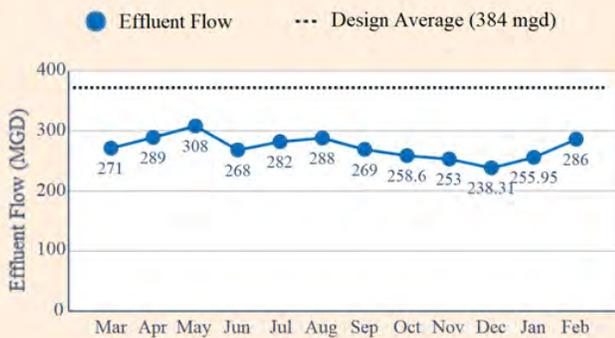
Total Nitrogen Compared to New Permit Levels



Nitrogen level for February were below permit by 1.49 million lbs/yr

PLANT EFFLUENT FLOW

Effluent Flow compared to Plant Design Average Limit



In February, Influent flow was below design by 98 MGD

TOTAL EXCESS FLOW

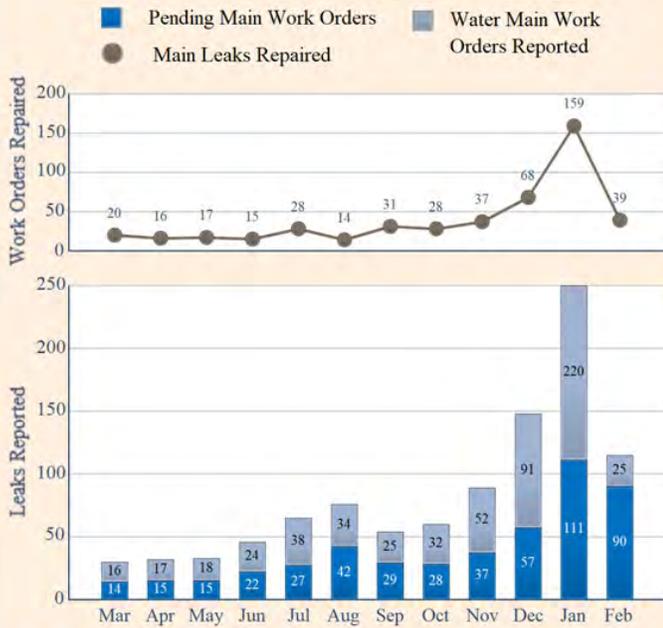


Excess flow events were recorded at 110 MG in February

OPERATIONAL HIGHLIGHTS

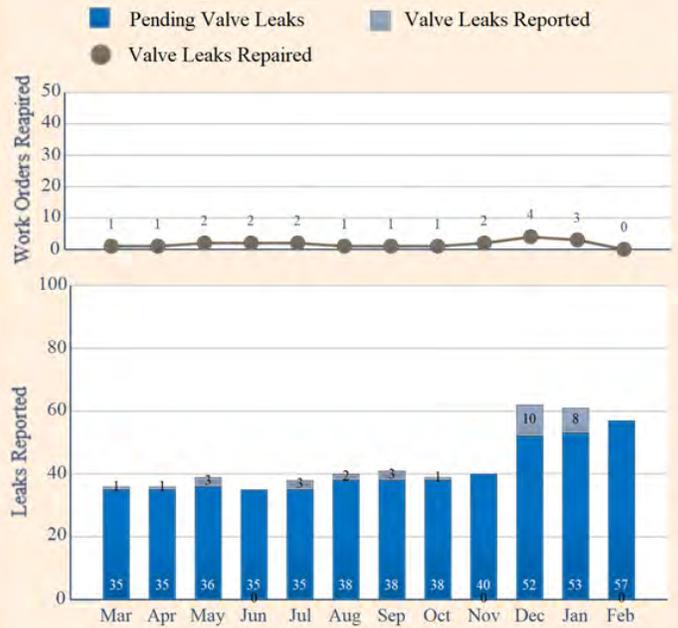
WATER DISTRIBUTION OPERATIONS

WATER MAIN LEAKS



There were 25 Water Main Work Orders reported in February

WATER VALVE LEAKS

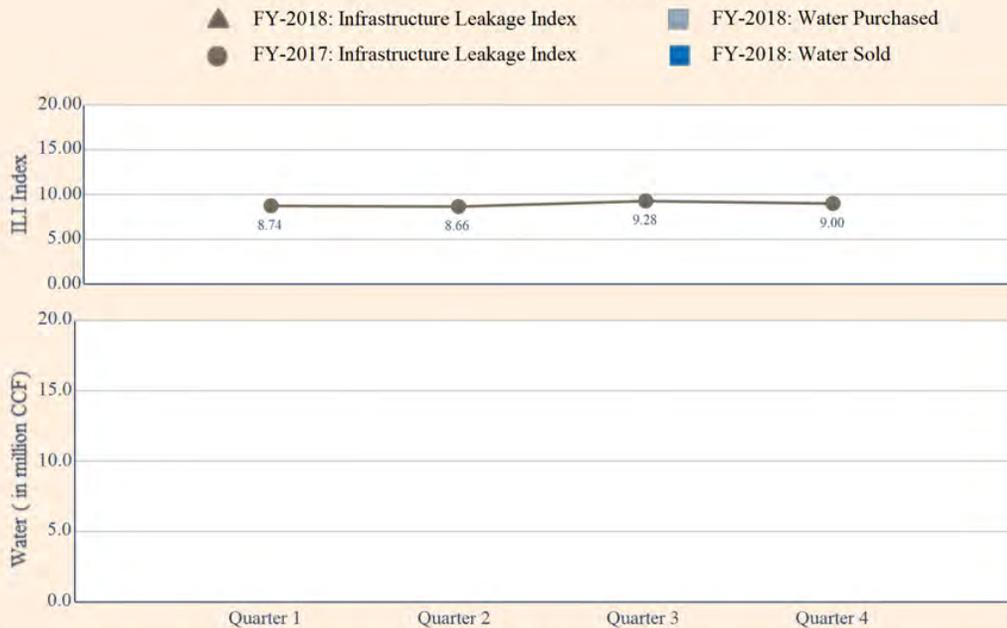


No leaks were resolved in February

WATER BALANCE

NON-REVENUE WATER

Volume of Water Purchased and Sold per Quarter



In the 4th quarter of FY 2017, 10 out of 13 million cubic feet of water was sold

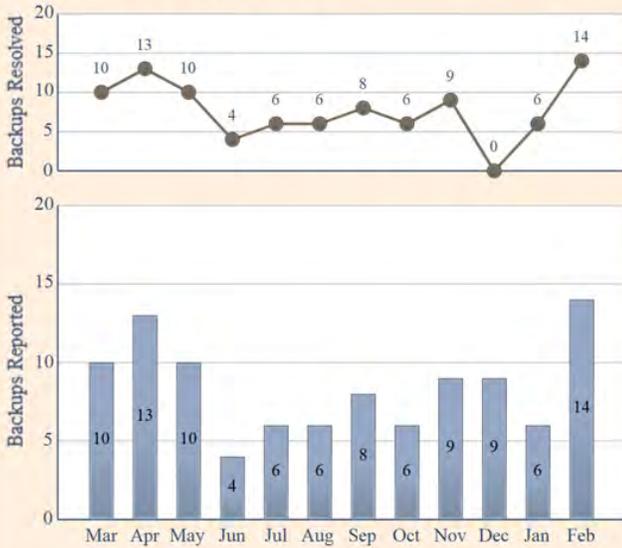
OPERATIONAL HIGHLIGHTS

SEWER SYSTEM OPERATIONS

SEWER MAIN BACKUPS

Sewer Mains Backed Up and Relieved per Month

- Pending Main Backups
- Main Backups Reported
- Main Backups Resolved

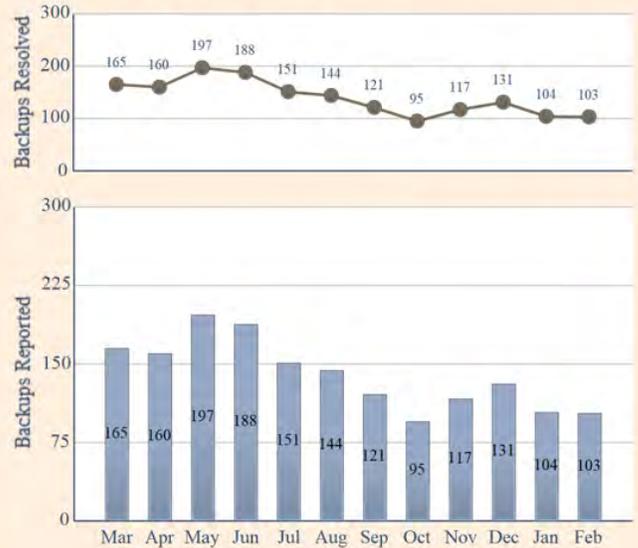


No pending main backups reported

SEWER LATERAL BACKUPS

Sewer Laterals Backed Up and Relieved per Month

- Pending Lateral Backups
- Lateral Backups Reported
- Lateral Backups Resolved



No pending lateral backups reported

COMBINED SEWER SYSTEM

DRY WEATHER CSO EVENTS

Combined Sewer Overflow Volume and No of Events per Month

- Overflow Volume (MG)
- Number of CSO Events



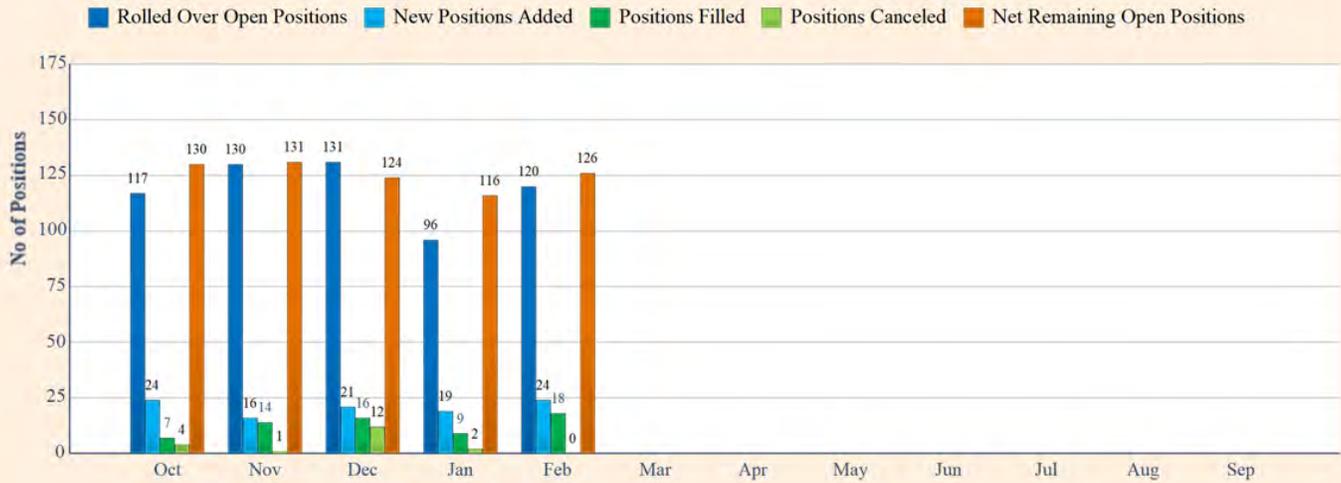
No dry weather Combined Sewer Overflow event were recorded in February 2018

OPERATIONAL HIGHLIGHTS

HUMAN RESOURCES

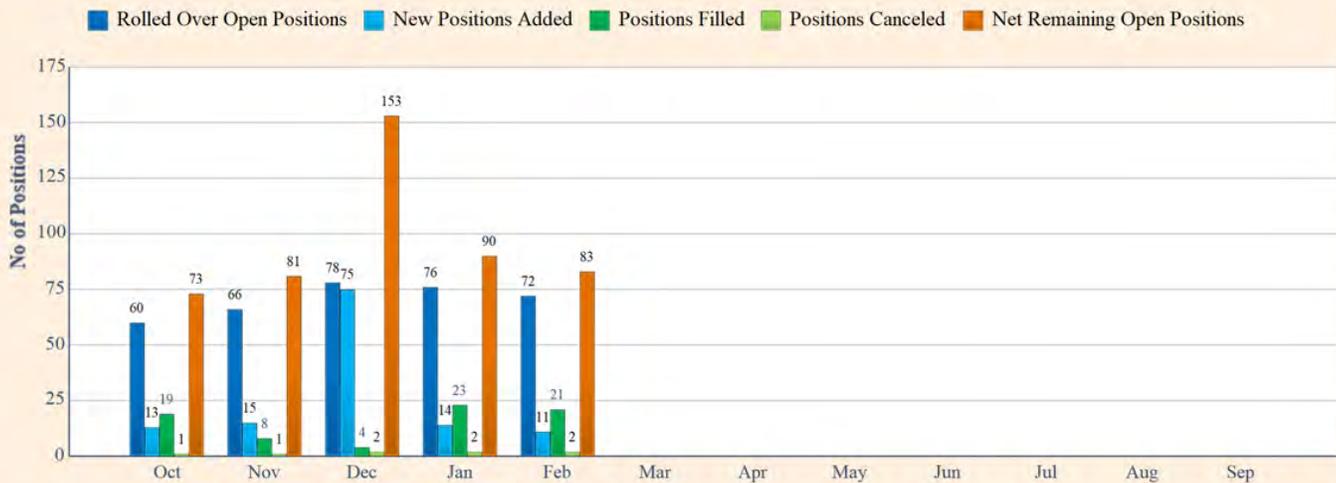
RECRUITMENT ACTIVITY

PREVIOUS FISCAL YEAR



RECRUITMENT ACTIVITY

CURRENT FISCAL YEAR



RECRUITMENT PERFORMANCE METRIC

PREVIOUS FISCAL YEAR



RECRUITMENT PERFORMANCE METRIC

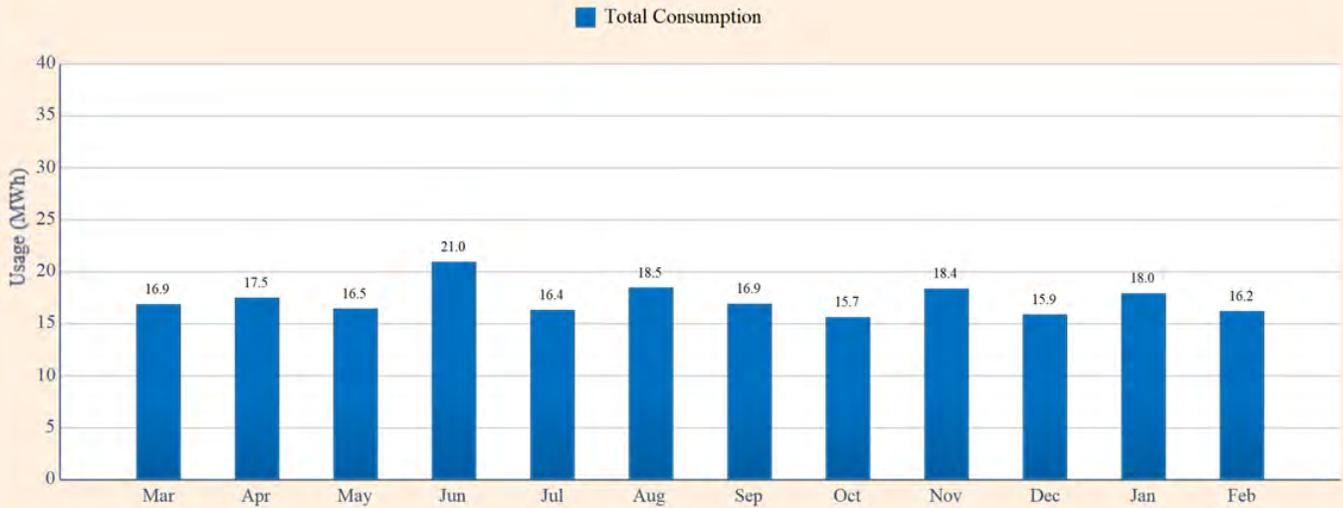
CURRENT FISCAL YEAR



OPERATIONAL HIGHLIGHTS

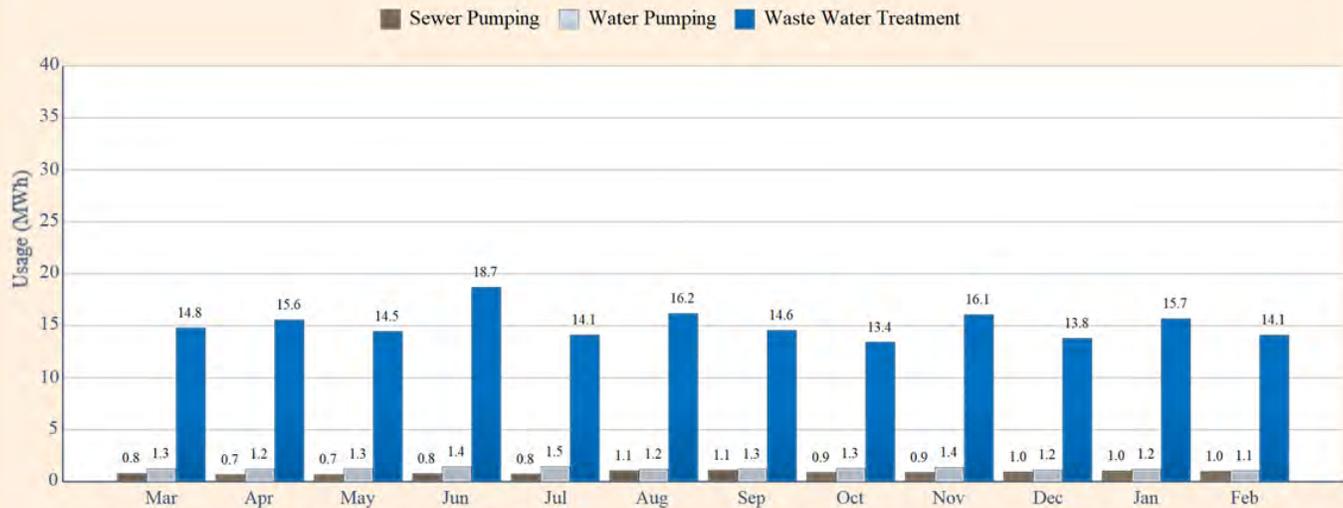
ENERGY CONSUMPTION

ELECTRICITY USAGE SUMMARY



Electricity Consumption in February was 16,227 KWh

ELECTRICITY USAGE BY SERVICE AREA



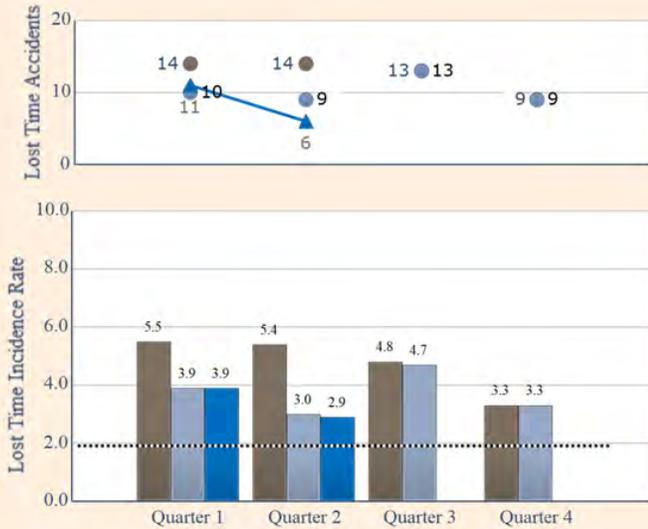
Waste Water treatment had the highest electricity consumption in February at 14,121 KWh

OPERATIONAL HIGHLIGHTS

SAFETY

EMPLOYEE LOST TIME INCIDENCE RATE

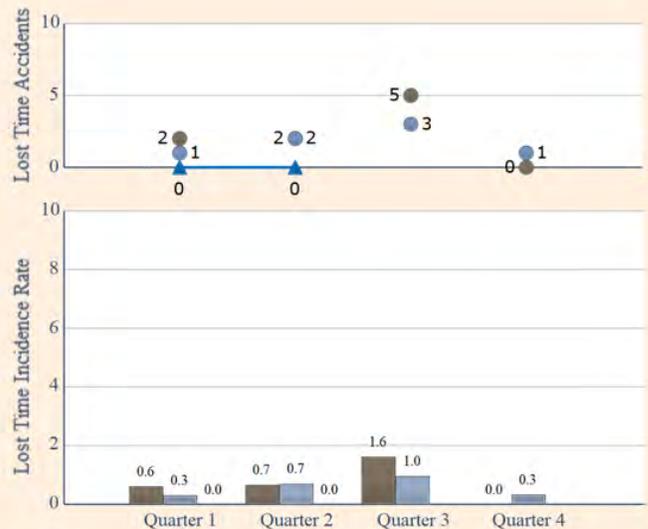
- FY-2016: No of LT Accidents
 - FY-2016: LT Incidence Rate
 - FY-2017: No of LT Accidents
 - FY-2017: LT Incidence Rate
 - ▲ FY 2018 No of LT Accidents
 - FY 2018 LT Incidence Rate
- Target/National: LT Incidence Rate



In the 2nd quarter, 6 lost time accidents were reported

CONTRACTOR LOST TIME INCIDENCE RATE

- FY-2016: No of LT Accidents
- FY-2016: LT Incidence Rate
- FY-2017: No of LT Accidents
- FY-2017: LT Incidence Rate
- ▲ FY 2018 No of LT Accidents
- FY 2018 LT Incidence Rate

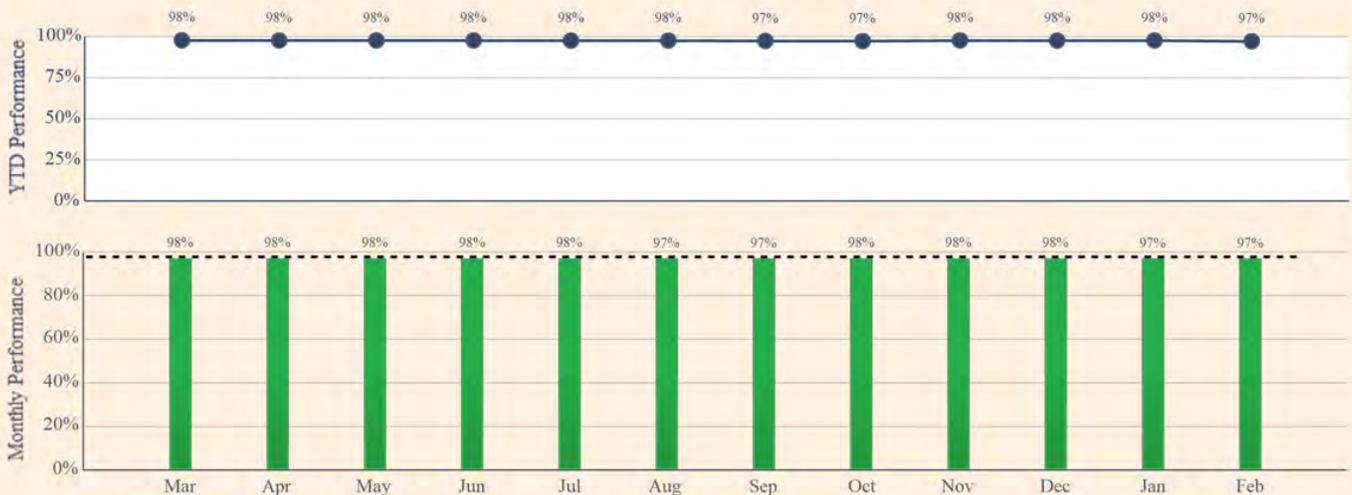


In the 2nd quarter, 0 lost time accident was reported

VENDOR PAYMENTS

VENDOR PAYMENT PERFORMANCE

- Monthly Performance (%)
- YTD Performance (%)
- Monthly Target - (97%)



Monthly performance for February was above Budget by 0.1%

INTERPRETATION OF CHARTS:

FINANCIAL HIGHLIGHTS

Revenue, Expenditure, Capital Disbursement

- Bulls eye shows the variance for YTD budget against actual for revenues, expenditures and capital disbursements
- Bar graph shows **total** for the fiscal year budgeted(grey)-revenues, expenditures and capital disbursements against YTD actual(blue)
- Horizontal line graph shows a YTD progress analysis as compared to the previous year

Net Operating Cash

- Bar graph shows monthly net operating cash provided/used
- Line graph denoted by (Δ) compares YTD actual against budget (O). This element is dynamically color coded*

Operating Revenues

- Bar graph shows monthly operating revenues
- Line graph denoted by (Δ) compares YTD revenue against budget (O). This element is dynamically color coded*

Operating Expenses

- Bar graph shows monthly operating expenses
- Line graph denoted by (Δ) compares YTD expenditure against budget (O). This element is dynamically color coded**

Capital Disbursements

- Bar graph shows monthly capital disbursements
- Line graph denoted by (Δ) compares YTD disbursements against budget (O). This element is dynamically color coded**

Operating Cash Balance

- Bar graph shows monthly average cash balance compared to the target of \$125 million; indicated by grey dotted line

Delinquent Account Receivables

- Bar graph shows monthly Receivables to Revenue ratio against target of 3%; indicated by grey dotted line. This element is dynamically color coded**
- Line graph denoted by (Δ) shows delinquency in actual dollars

Investment Cash Earnings

- Bar graph shows monthly investment cash earnings
- Line graph denoted by (Δ) compares the YTD earnings against budget (O). This element is dynamically color coded*

Core Investments Yield

- Bar graph shows the monthly investment yield compared to the monthly target (grey) benchmark as set by the US Treasury Bill. This element is dynamically color coded*

Short Term Investment Yield

- Bar graph shows the monthly short term investment yield compared to the monthly short term target (grey) benchmark as set by the US Treasury Bill. This element is dynamically color coded*

Dynamic Color Coding Legend

*	**
<p>Red - when the actual is lower than 3% of budget or target</p> <p>Yellow - when the actual is within 3% of budget or target</p> <p>Green - when the actual is equal to or higher than budget or target</p>	<p>Red - when the actual is higher than 3% of budget or target</p> <p>Yellow - when the actual is within 3% of budget or target</p> <p>Green - when the actual is equal to or lower than budget or target</p>

Symbols where the color code applies- (Δ, □)

A

CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

Call Center Performance

- Bar graph shows monthly percentage of calls answered within 40 seconds against target of 85%; indicated by grey dotted line. This element is dynamically color coded***
- Line graph denoted by (O) shows the number of calls received by the call center every month

Command Center Performance

- Bar graph shows monthly percentage of calls answered within 40 seconds against target of 85%; indicated by grey dotted line. This element is dynamically color coded***
- Line graph denoted by (O) shows the number of calls received by the command center every month

First Call Resolution (FCR)

- Bar graph shows monthly percentage of calls resolved on first contact against target of 75%; indicated by grey dotted line. This element is color dynamically coded***

Emergency Response Time

- Bar graph shows the percentage of emergency calls responded to within 45 minutes against target of 90%; indicated by grey dotted line. This element is dynamically color coded***
- Line graph denoted by (O) shows the total calls dispatched per month

Fire Hydrants Out of Service (OOS)

- Bar graph shows total hydrants not available for use against target of 91; indicated by grey dotted line. This element is dynamically color coded****
- The bar graph is stacked (blue) to show hydrants that are inaccessible. Inaccessible hydrants are not measured against the target of 91

Fire Hydrant Inspections and Maintenance

- Bar graph shows the total number of fire hydrants repaired per month

Fire Hydrant Replacements

- Bar graph shows the total number of hydrants replaced per month against target of 21; indicated by grey dotted line. This element is dynamically color coded****

Total Applications Processed within Service Level Agreement (SLA)

- Bar graph shows
 - the number of permits processed per month(dark blue)
 - the number of permits processed within SLA per month(light blue)
- Line graph denoted by (O) shows the percentage of permits processed vs. processed within SLA

Dynamic Color Coding Legend

***	****
<p>Red- when the actual is lower than 5% of budget or target</p> <p>Yellow- when the actual is within 5% of budget or target</p> <p>Green- when the actual is equal to or higher than budget or target</p>	<p>Red- when the actual is higher than 5% of budget or target</p> <p>Yellow- when the actual is within 5% of budget or target</p> <p>Green- when the actual is equal to or lower than budget or target</p>

Symbols where the color code applies- (Δ, □)

LOW INCOME ASSISTANCE PROGRAM

SPLASH Contributions

- Bar graph shows monthly SPLASH contributions
- Line graph denoted by (Δ) shows the YTD contributions against target (O). This element is color coded***

Customer Assistance Program (CAP)

- Bar graph shows monthly CAP assistance
- Line graph denoted by (Δ) shows the YTD contributions against budget (O). This element is color coded***

OPERATIONAL HIGHLIGHTS

Lead and Copper Rule (LCR) Compliance

- Line graph denoted by (Δ, O) shows semi-annual LCR monitoring results against target of 15ppb; indicated by grey dotted line. This element is color coded****

Total Coliform Rule (TCR)

- Line graph denoted by (Δ) shows total coliform positives against the EPA maximum contaminant level of 5%. This element is color coded****

Biosolids Production

- Bar graph shows monthly average daily biosolids production

Total Nitrogen

- Line graph denoted by (Δ) shows monthly total nitrogen level against the current permit (dark grey) and 2015 permit (light grey) levels. This element is color coded****

Plant Effluent Flow

- Line graph denoted by (Δ) shows monthly influent flow against the plant design average limit of 370MGD. This element is color coded****

Excess Flow

- Line graph denoted by (Δ) shows monthly excess flow

Water Main Leaks

- Bar graph shows the water main leaks reported
- The bar graph is stacked(dark blue) to show the pending leaks carried over from the previous month if any; bar graph(light blue) shows new water main leaks reported for the given month
- Line graph denoted by (O) shows the number of main leaks repaired per month

Water Valve Leaks

- Bar graph shows the water valve leaks reported
- The bar graph is stacked(dark blue) to show the pending leaks carried over from the previous month if any; bar graph(light blue) shows new water valve leaks reported for the given month
- Line graph denoted by (O) shows the number of valve leaks repaired per month

Dynamic Color Coding Legend

***	****
<p>Red- when the actual is lower than 5% of budget or target</p> <p>Yellow- when the actual is within 5% of budget or target</p> <p>Green- when the actual is equal to or higher than budget or target</p>	<p>Red- when the actual is higher than 5% of budget or target</p> <p>Yellow- when the actual is within 5% of budget or target</p> <p>Green- when the actual is equal to or lower than budget or target</p>

Symbols where the color code applies- (Δ, □)

Non Revenue Water

- Bar graph shows the volume of water purchased(dark blue) and water sold(light blue) per quarter
- Line graph denoted by (Δ, O) shows the Infrastructure Leakage Index(ILI) for the current and previous year

Sewer Main Backups

- Bar graph shows the sewer main backups reported
- The bar graph is stacked(dark blue) to show the pending backups carried over from the previous month if any; bar graph(light blue) shows new sewer main backups reported for the given month
- Line graph denoted by (O) shows the number of main backups resolved per month

Sewer Lateral Backups

- Bar graph shows the sewer lateral backups reported
- The bar graph is stacked(dark blue) to show the pending backups carried over from the previous month if any; bar graph(light blue) shows new sewer laterals backups reported for the given month
- Line graph denoted by (O) shows the number of lateral backups resolved per month

Combined Sewer dry weather Overflow (CSO) Events

- Bar graph shows dry weather CSO events per month
- Line graph denoted by (O) shows the volume in Million Gallons(MG) per dry weather CSO event

Open Positions

- Bar graph (dark blue) shows open positions carried over from the previous month.
- Bar graph (light blue) shows new positions added in the given month.
- Bar graph (olive green) shows positions filled in the given month.
- Bar graph (orange) shows positions cancelled in the given month.
- Bar graph (light green) shows net remaining open positions at the end of the given month.

Electricity Usage Summary

- Bar graph shows total electricity consumption per month

Electricity Usage by Service Area

- Shows a monthly breakdown by service area of electricity usage
- Dark blue shows for Waste Water Treatment Service Area
- Light blue shows Water Pumping Service Area
- Brown shows Sewer Pumping Service Area

Employee Lost Time Incidence Rate

- Bar graph shows quarterly Employee Lost Time (LT) incidence rate as compared to the National average LT rate of 2.0; indicated by grey dotted line. Light blue represents the previous year, brown represents the year before previous and dark blue the current fiscal year.
- Scatter graph denoted by (Δ, O) shows the number of Lost Time accidents and comparison is also made between the current year and the previous years.

Contractor Lost Time Incidence Rate

- Bar graph shows quarterly Contractor Lost Time (LT) incidence rate. Light blue represents the previous year, brown represents the year before previous and dark blue the current fiscal year.
- Scatter graph denoted by (Δ, O) shows the number of Lost Time accidents and comparison is also made between the current year and the previous years.

Dynamic Color Coding Legend

***	****
<p>Red- when the actual is lower than 5% of budget or target</p> <p>Yellow- when the actual is within 5% of budget or target</p> <p>Green- when the actual is equal to or higher than budget or target</p>	<p>Red- when the actual is higher than 5% of budget or target</p> <p>Yellow- when the actual is within 5% of budget or target</p> <p>Green- when the actual is equal to or lower than budget or target</p>

Symbols where the color code applies- (Δ, □)

Vendor Payment Performance

- Bar graph shows monthly Vendor Payment Performance percentage against monthly target of 97%; indicated by grey dotted line. This element is dynamically color coded**
- Line graph denoted by (O) shows the YTD vendor payment performance %.

Dynamic Color Coding Legend

<p>***</p> <p>Red- when the actual is lower than 5% of budget or target</p> <p>Yellow- when the actual is within 5% of budget or target</p> <p>Green- when the actual is equal to or higher than budget or target</p>	<p>****</p> <p>Red- when the actual is higher than 5% of budget or target</p> <p>Yellow- when the actual is within 5% of budget or target</p> <p>Green- when the actual is equal to or lower than budget or target</p>
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Symbols where the color code applies- (Δ, □)



Consent Agenda

Summary of Contracts

241st Meeting of the DC Water Board of Directors

Thursday, April 5, 2018

Joint Use Contracts

1. **Resolution No. 18-30 - Execute Supplemental Agreement No. 2 of Contract No. DCFA #463-WSA, AECOM Services of DC.** The purpose of the supplemental agreement is to extend onsite CM of Division Z Poplar Point Pumping Stations Replacement due to further unforeseen delays in the construction of the project. The supplemental agreement amount is \$740,000. **(Recommended by Environmental Quality and Operations Committee 03/15/18)**
2. **Resolution No. 18-31 - Execute Contract No. DCFA #483-WSA, HDR Engineering, Inc.** The purpose of the contract is to undertake field reviews and develop a condition assessment, develop a Basis of Design memorandum, and define an opinion of probable construction costs. The contract amount is \$1,000,000. **(Recommended by Environmental Quality and Operations Committee 03/15/18)**

Non-Joint Use Contracts

1. **Resolution No. 18-34, Execute Contract No. 150220, Fort Myer Construction Corporation.** The purpose of the contract is to provide construction of Division PR-A1-Potomac River Project A1 (G1) in support of DC Clean Rivers Project. The contract amount is \$6,265,502.47. **(Recommended by Environmental Quality and Operations Committee 03/15/18)**

Presented and Approved: April 5, 2018

**SUBJECT: Approval to Execute Supplemental Agreement No. 2 of
Contract No. DCFA #463-WSA, AECOM Services of DC**

**#18-30
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY**

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on April 5, 2018 upon consideration of a joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Supplemental Agreement No. 2 of Contract No. DCFA #463-WSA, AECOM Services of DC.

Be it resolved that:

The Board of Directors hereby authorizes the Interim General Manager to execute Supplemental Agreement No. 2 of Contract No. DCFA #463-WSA, AECOM Services of DC. The purpose of the supplemental agreement is to extend onsite CM of Division Z Poplar Point Pumping Station Replacement due to further unforeseen delays in the construction of the project. The supplemental agreement amount is \$740,000.

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

ENGINEERING SERVICES SUPPLEMENTAL AGREEMENT

**Construction Management Services, Anacostia River Combined Sewer Overflow (CSO) Control Projects, Division Z - Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion
(Joint Use)**

Approval to execute Supplemental Agreement No. 2 for \$740,000.00. The modification exceeds the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
AECOM Services of DC 3101 Wilson Boulevard Suite 900 Arlington, VA 22201	SZ PM Consultants, Inc. Oakton, VA	MBE 27.9%
	Savin Engineers, PC Washington, DC	MBE 4.7%
<u>Headquarters</u> Los Angeles, CA 90067	Sigma Associates, Inc. Detroit, MI	WBE 19.5%

DESCRIPTION AND PURPOSE

Original Contract Value:	\$4,891,074.00
Value of Previous Supplemental Agreement:	\$1,992,719.57
Value of this Supplemental Agreement:	\$ 740,000.00
Cumulative SA Value, including this SA:	\$2,732,719.57
Current Contract Value, Including this SA:	\$7,623,793.57
Original Contract Time:	958 Days (2 Years, 8 Months)
Time Extension, this SA:	214 Days
Total SA contract time extension:	549 Days (1 Year, 8 Months)
Contract Start Date:	11-15-2014
Contract Completion Date:	12-31-2018

Purpose of the Contract:

To provide onsite construction management (CM) of Division Z – Poplar Point Pumping Station Replacement (DC Clean Rivers Project) construction contract.

This work is required by Consent Decree.

Original Contract Scope:

- Provide CM and other services to assist DC Water with construction of Division Z. Division Z includes construction of a new 55 MGD Poplar Point Sewage Pumping Station (PP-PS), the Anacostia Main Interceptor (AMI) Diversion Chamber, the AMI Diversion Sewer, the Emergency Overflow Structure, the 42" Force Main, the Discharge Connection Chamber, and the Main Outfall Sewers Diversion Chamber.
- Provide CM services to assist DC Water with the replacement of the Barry Road sewer.
- Work in cooperation and consultation with DC Water and the DC Clean Rivers Project Program Consultants Organization to effectively manage the construction work required to provide completed Division Z facilities.
- Provide field inspection services for the oversight of the construction work as well as oversight during startup and operational training for the newly constructed PP-PS.

Presented and Approved: April 5, 2018

SUBJECT: Approval to Execute Contract No. DCFA #483-WSA, HDR Engineering, Inc.

**#18-31
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY**

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on April 5, 2018 upon consideration of a joint use matter, decided by a vote of __() in favor and __() opposed to execute Contract No. DCFA #483-WSA, HDR Engineering, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the Interim General Manager to execute Contract No. DCFA #483-WSA, HDR Engineering, Inc. The purpose of the contract is to undertake field reviews and develop a condition assessment, develop a Basis of Design memorandum, and define an opinion of probable construction costs. The contract amount is \$1,000,000.

This Resolution is effective immediately.

Secretary to the Board of Directors

PROCUREMENT INFORMATION

Contract Type:	Lump Sum	Award Based On:	Highest Ranking Score
Commodity:	Engineering Design Services	Contract Number:	DCFA#483-WSA
Contractor Market:	Open Market		

BUDGET INFORMATION

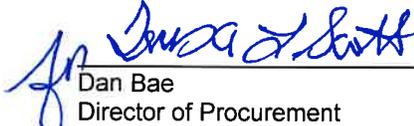
Funding:	Capital	Department:	Wastewater Engineering (DWE)
Service Area:	Wastewater Treatment	Department Head:	Diala Dandach
Project:	BQ		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.22%	\$ 412,200.00
Federal Funds	0.00%	\$
Washington Suburban Sanitary Commission	45.84%	\$ 458,400.00
Fairfax County	8.38%	\$ 83,800.00
Loudoun County & Potomac Interceptor	4.56%	\$ 45,600.00
Total Estimated Dollar Amount	100.00%	\$ 1,000,000.00

 3-7-18
 Leonard R. Benson Date
 Chief Engineer

 3/8/18
 Matthew T. Brown Date
 Chief Financial Officer

 3/9/18
 Dan Bae Date
 Director of Procurement

 3/22/18
 Henderson J. Brown IV Date
 Interim CEO and General Manager

Presented and Adopted: April 5, 2018
Subject: Approving the Final Form of Certain Documents,
Authorizing the Sale and Setting Terms and Details
of the Series 2018A and Series 2018B Bonds

#18-32
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors (“Board”) of the District of Columbia Water and Sewer Authority (“Authority”), at its meeting on April 5, 2018, by a vote of _____ (___) in favor and _____ (___) opposed, decided to approve the following:

WHEREAS, the Authority is authorized pursuant to the *Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996*, as amended, D.C. Code Section 34-2201.01 et seq. (the “WASA Act”), and the *District of Columbia Water and Sewer Authority Act of 1996*, Public Law 104-184; 110 Stat. 1696, to issue revenue bonds for undertakings authorized by the WASA Act, including to finance or refinance any cost, as defined in the WASA Act, D.C. Code Section 34-2202.01(2); and

WHEREAS, in accordance with the WASA Act, the Authority and Wells Fargo Bank, National Association, as trustee (the “Trustee”) (its predecessors in that capacity having been Norwest Bank Minnesota, N.A. and Wells Fargo Bank Minnesota, N.A.), entered into the Master Indenture of Trust, dated as of April 1, 1998 (the “Master Indenture” and, as supplemented and amended, the “Indenture”), to provide for financing or refinancing the acquisition, construction, operation, maintenance and extension of the System (as defined in the Master Indenture) by the issuance of bonds, notes and other obligations payable solely from Net Revenues (as such terms are defined in the Master Indenture); and

WHEREAS, the Authority has heretofore entered into twenty-two (22) supplemental indentures of trust with the Trustee in connection with the issuance of Senior Debt and Subordinate Debt (both as defined in the Indenture) or to amend and clarify the Master Indenture; and

WHEREAS, the Authority now intends (i) to issue Public Utility Senior Lien Revenue Bonds, Series 2018A (Green Bonds) (the “Series 2018A Bonds”) to (a) finance a portion of the costs of the Authority’s DC Clean Rivers Project (as defined in the preliminary Official Statement, dated April [____], 2018, for the Series 2018A/B Bonds); (b) fund a Series 2018A Debt Service Reserve Requirement (as defined herein), if

determined necessary; and (c) pay certain costs of issuance; (ii) to issue Public Utility Senior Lien Revenue Bonds, Series 2018B (the “Series 2018B Bonds” and, together with the Series 2018A Bonds, the “Series 2018A/B Bonds”) to (a) finance certain Costs of the System; (b) refund a portion of the Authority’s currently outstanding Commercial Paper Notes (the “CP Notes”); (c) fund a Series 2018B Debt Service Reserve Requirement (as defined herein), if determined necessary; and (d) pay certain costs of issuance; (iii) to designate the Series 2018A/B Bonds as Senior Debt for purposes of the Indenture; and (iv) to secure the Series 2018A/B Bonds by a pledge of Net Revenues on a parity with the pledge of Net Revenues that secures other Senior Debt, including, without limitation, other Senior Debt that the Authority may issue from time to time in the future; and

WHEREAS, the Interim CEO and General Manager, the Chief Financial Officer, the Chief Engineer and the Acting General Counsel of the Authority have informed the Board that their offices have established “due diligence” procedures for reviewing the documents authorized by this Resolution with the Authority’s bond counsel, disclosure counsel, financial advisors, underwriters, underwriters’ counsel and other consultants and advisors, with a view to ensuring the accuracy of disclosure; and

WHEREAS, the Finance and Budget Committee met on March 22, 2018, to review the issuance of the Series 2018A/B Bonds and has recommended approval of this Resolution by the Board;

NOW, THEREFORE, BE IT RESOLVED, that:

Section 1. Definitions and Interpretations. Unless otherwise defined herein and unless the context indicates otherwise, the terms used herein and defined in the Indenture (including the Twenty-Third Supplemental Indenture as hereby approved) shall have the meanings assigned to them therein. In addition, the following terms used as defined terms in this Resolution shall have the meaning assigned to them in this Section:

“Authorized Officials” means the Chairman and Vice Chairman of the Board and the CEO and General Manager, Chief Financial Officer, Controller, Budget Director, Finance Director and Rates and Revenue Director of the Authority, including any of the foregoing who are in an interim, acting or similar capacity, provided that any official other than the Chairman shall be designated by the Chairman as his designee for the purpose of executing and delivering any document authorized hereunder.

“Bond Purchase Agreement” means the Bond Purchase Agreement between the Authority and the Series 2018A/B Original Purchasers, dated as of the same date as the Certificate of Award.

“Certificate of Award” means the certificate of an Authorized Official awarding the Series 2018A/B Bonds to the Series 2018A/B Original Purchasers and specifying terms of the Series 2018A/B Bonds, as provided for in Section 4 of this Resolution.

“Continuing Disclosure Agreement” means the Continuing Disclosure Agreement executed by the Authority and the Trustee, dated as of the same date as the date of issuance and delivery of the Series 2018A/B Bonds, as originally executed and as it may be amended from time to time in accordance with its terms.

“Financial Advisor” means, collectively, PFM Financial Advisors LLC and G~Entry Principle, P.C.

“Interest Payment Dates” means for the Series 2018A/B Bonds, each April 1 and October 1, commencing on the April 1 or October 1 specified in the Certificate of Award as the first Interest Payment Date, and thereafter during the time the Series 2018A/B Bonds are Outstanding.

“Series 2018A Debt Service Reserve Requirement” means, if determined in the Certificate of Award to be necessary, a required fund balance in the Series 2018A Debt Service Reserve Account or Accounts established under the Twenty-Third Supplemental Indenture, the amount of which shall be specified in the Certificate of Award, but which shall not exceed the maximum amount permitted to constitute a “reasonably required reserve or replacement fund” under the size limitation set forth in Section 1.148-2(f)(2) of the Treasury Regulations promulgated under the Code (taking into account any moneys in any other fund or account that may be required to be included in such computation) unless the Authority furnishes to the Trustee an opinion of nationally recognized bond counsel to the effect that the existence of a balance in the Series 2018A Debt Service Reserve Account in the amount of the specified required fund balance will not cause the interest on any Series 2018A Bonds intended to be excluded from gross income for federal income tax purposes not to be so excluded.

“Series 2018A/B Original Purchasers” for the Series 2018A/B Bonds means the purchasers identified as such in the Bond Purchase Agreement for the Series 2018A/B Bonds.

“Series 2018B Debt Service Reserve Requirement” means, if determined in the Certificate of Award to be necessary, a required fund balance in the Series 2018B Debt Service Reserve Account or Accounts established under the Twenty-Third Supplemental Indenture, the amount of which shall be specified in the Certificate of Award, but which shall not exceed the maximum amount permitted to constitute a “reasonably required reserve or replacement fund” under the size limitation set forth in Section 1.148-2(f)(2) of the Treasury Regulations promulgated under the Code (taking into account any moneys in any other fund or account that may be required to be included in such computation) unless the Authority furnishes to the Trustee an opinion of nationally recognized bond counsel to the effect that the existence of a balance in the Series 2018B Debt Service Reserve Account in the amount of the specified required fund balance will not cause the interest on any Series 2018B Bonds intended to be excluded from gross income for federal income tax purposes not to be so excluded.

“Twenty-Third Supplemental Indenture” means the Twenty-Third Supplemental Indenture of Trust by and between the Authority and the Trustee, dated as of the same date as and relating to the Series 2018A/B Bonds.

Any reference to the Authority or the Board, or to their members or officers, or to other public officers, boards, commissions, departments, institutions, agencies, bodies or entities, shall include those who or which succeed to their functions, duties or responsibilities by operation of law and also those who or which at the time may legally act in their place.

Section 2. Authorization, Designation and Purposes of Series 2018A/B Bonds. The Authority is authorized to issue, sell and deliver, as provided in this Resolution and the Certificate of Award, not to exceed (except as provided below) Three Hundred Fifty Million Dollars (\$350,000,000) aggregate principal amount of Series 2018A/B Bonds which aggregate amount shall be allocated between the Series 2018A Bonds and the Series 2018B Bonds in the Certificate of Award. The Series 2018A Bonds shall be designated “Public Utility Senior Lien Revenue Bonds, Series 2018A (Green Bonds)” and shall constitute Senior Debt for purposes of the Indenture, for the purpose of: (a) financing a portion of the costs of the Authority’s DC Clean Rivers Project, (b) funding a Series 2018A Debt Service Reserve Requirement, if determined necessary in the Certificate of Award; and (c) paying issuance costs of the Series 2018A Bonds. The Series 2018B Bonds shall be designated “Public Utility Senior Lien Revenue Bonds, Series 2018B” and shall constitute Senior Debt for purposes of the Indenture, for the purpose of: (a) financing certain Costs of the System; (b) refunding such portion of the CP Notes as may be specified in the Certificate of Award; (c) funding a Series 2018B Debt Service Reserve Requirement, if determined necessary in the Certificate of Award; and (d) paying issuance costs of the Series 2018B Bonds. For those purposes the proceeds from the sale of the Series 2018A/B Bonds shall be allocated and deposited, as provided in the Twenty-Third Supplemental Indenture. If and to the extent that any Series 2018A/B Bonds are issued for the purpose of funding a Series 2018A Debt Service Reserve Requirement and/or a Series 2018B Debt Service Reserve Requirement, then the aggregate principal amount of Series 2018A/B Bonds hereby authorized may exceed \$350,000,000 by the aggregate principal amount of the Series 2018A/B Bonds to be issued for that purpose. Any designation of bonds authorized above may be revised or clarified in the Certificate of Award.

Section 3. Terms and Provisions Applicable to the Series 2018A/B Bonds.

(a) Form, Transfer and Exchange. The Series 2018A/B Bonds: (i) shall initially be issued only in fully registered form and substantially in the forms attached as Exhibits to the Twenty-Third Supplemental Indenture; (ii) shall initially be issued only to a Depository for holding in a book entry system, and shall be registered in the name of the Depository or its nominee, as Holder, and immobilized in the custody of the Depository, and (iii) shall not be transferable or exchangeable except as provided in the Twenty-Third Supplemental Indenture.

(b) Denominations and Dates. The Series 2018A/B Bonds shall be dated as of the date of issuance and delivery, but in no event later than December 31, 2018, and there shall be a single Series 2018A/B Bond representing each interest rate for each maturity of the Series 2018A/B Bonds bearing the same series or subseries designation.

(c) Interest Rates and Principal Maturities. The Series 2018A/B Bonds shall bear interest on their unpaid principal amount payable on each Interest Payment Date, commencing on the first Interest Payment Date specified in the Certificate of Award, at such fixed rates per annum as set forth in the Certificate of Award as provided in Section 4(c) hereof, provided however, that the “true interest cost” (i.e., interest cost on bonds defined as the rate, compounded semiannually, necessary to discount the amounts payable on the respective interest and principal payment dates to the purchase price received for the bonds) on the Series 2018A/B Bonds shall not exceed five and one half percent (5.50%) per annum. The principal of the Series 2018A/B Bonds shall be paid in such amounts on each principal retirement date (whether at stated maturity date or a mandatory redemption date) as set forth in the Certificate of Award, provided that the final principal retirement date shall be no later than December 31, 2058.

(d) Optional and Mandatory Redemption.

(i) *Optional* - The Series 2018A/B Bonds maturing on or before any date specified in the Certificate of Award as the Earliest Optional Redemption Date (which shall be no later than the outside date permitted by law) are not subject to prior optional redemption. Any Series 2018A/B Bond maturing after the Earliest Optional Redemption Date shall be subject to redemption at the option of the Authority, prior to their stated maturities on or after the Earliest Optional Redemption Date in whole or in part (in whole multiples of \$5,000) on any date, at redemption prices specified in the Certificate of Award, provided that no such redemption price (not including accrued interest) shall exceed 102% of the principal amount of the Series 2018A/B Bonds to be redeemed.

(ii) *Mandatory Sinking Fund Redemption* - Any Series 2018A/B Bonds may be designated in the Certificate of Award as Term Bonds and be subject to mandatory sinking fund redemption by lot on specified principal retirement dates at a price equal to 100% of the principal amount to be redeemed, plus accrued interest to the date of redemption.

(iii) *Make Whole* – If so designated in the Certificate of Award, the Series 2018A/B Bonds shall also be subject to redemption at the option of the Authority prior to their stated maturities at any time in whole or in part (in whole multiples of \$5,000) on any date, at a redemption price which will make the holders of such Series 2018A/B Bonds whole through the Earliest Optional Redemption Date for the early redemption. The Certificate of Award shall specify the method by which the “make whole” redemption price shall be determined, provided that the redemption price shall not

exceed 110% of the principal amount of the Series 2018A/B Bonds then redeemed, without further action by this Board on or before the date of redemption.

(e) Redemption Provisions. Redemption of Series 2018A/B Bonds shall be effected in accordance with Article IV of the Master Indenture; provided, however, that notices of redemption of the Series 2018A/B Bonds sent pursuant to Section 402 of the Master Indenture may specify that the redemption is conditional upon the Authority's depositing the funds needed to effect that redemption prior to the specified redemption date.

(f) Places and Manner of Payment. The principal of and the interest and any redemption premium on the Series 2018A/B Bonds shall be payable at the places and in the manner specified in the Twenty-Third Supplemental Indenture.

(g) Execution. The Authorized Officials are, and each of them is, authorized and directed to execute the Series 2018A/B Bonds, and the Secretary of the Board is authorized and directed to affix the seal of the Authority to the Series 2018A/B Bonds and to deliver them to the Trustee for authentication in accordance with the Indenture.

Section 4. Sale of Series 2018A/B Bonds.

(a) General. The Series 2018A/B Bonds shall be awarded and sold to the Series 2018A/B Original Purchasers in accordance with the Bond Purchase Agreement and the Certificate of Award, at a purchase price of not less than ninety-five percent (95%) of the aggregate of the products from multiplying the principal amount of each Series 2018A/B Bonds times the percentage of such principal amount at which such Series 2018A/B Bond shall be initially offered to the public, after subtracting from the aggregate of such products the premium payable for any municipal bond insurance policy applicable to the Series 2018A/B Bonds.

(b) Bond Purchase Agreement. The Authorized Officials are, and each of them is, authorized and directed to execute and deliver the Bond Purchase Agreement between the Authority and the Series 2018A/B Original Purchasers, substantially in the form presented to this Authority, but with such changes not inconsistent with the Indenture and this Resolution and not substantially adverse to the Authority as may be approved by the Authorized Official executing the same on behalf of the Authority. The approval of any such changes by such Authorized Official and the determination by such Authorized Official that no such change is substantially adverse to the Authority shall be conclusively evidenced by the execution of the Bond Purchase Agreement by such Authorized Official. The price for and terms of the Series 2018A/B Bonds and the sale thereof, all as provided in this Resolution, the Bond Purchase Agreement, the Certificate of Award, and the Twenty-Third Supplemental Indenture, are hereby approved and determined to be in the best interests of the Authority.

(c) Certificate of Award. Such sale and award shall be further evidenced by the Certificate of Award executed by an Authorized Official. The terms of the Series 2018A/B Bonds approved in the Certificate of Award shall be incorporated into the Twenty-Third Supplemental Indenture. The Certificate of Award, subject to the restrictions set forth herein, shall: (i) with respect to each series or subseries of the Series 2018A/B Bonds, specify the aggregate principal amount, the purchase price, the first Interest Payment Dates, the interest rate or rates, the principal retirement dates, the mandatory sinking fund requirements (if any), the redemption dates, and the redemption prices thereof; (ii) specify whether a municipal bond insurance policy, letter of credit, or other credit or liquidity facility shall be obtained with respect to the Series 2018A/B Bonds and, if so, from whom and on what terms; (iii) specify the amount, if any, of the Series 2018A Debt Service Reserve Requirement and the Series 2018B Debt Service Reserve Requirement and determine whether it shall be met entirely with (A) cash and Permitted Investments (as defined in the Indenture); (B) a Qualified Reserve Credit Facility (as defined in the Indenture); or (C) a specified combination of (A) and (B); and (iv) include any additional information that may be required or permitted to be stated therein by the terms of this Resolution and the Bond Purchase Agreement.

(d) Authorization of Bond Insurance and Qualified Reserve Credit Facilities. The submission of any applications to: (i) recognized providers of municipal bond insurance requesting the issuance of one or more municipal bond insurance policies to insure the Authority's obligation to make payments of principal of and interest on the Series 2018A/B Bonds, and (ii) potential providers of Qualified Reserve Credit Facilities, is hereby ratified and approved. The Authorized Officials are, and each of them is, hereby authorized to specify in the Certificate of Award that the Authority shall accept one or more commitments for insurance from such providers, and one or more commitments for a Qualified Reserve Credit Facility. There is hereby authorized to be paid from the moneys deposited in the Series 2018A Costs of Issuance Subaccount such amount as is required to pay the premium and expenses for such insurance policies and Qualified Reserve Credit Facilities relating to the Series 2018A Bonds. There is hereby authorized to be paid from the moneys deposited in the Series 2018B Costs of Issuance Subaccount such amount as is required to pay the premium and expenses for such insurance policies and Qualified Reserve Credit Facilities relating to the Series 2018B Bonds. The Authorized Officials are, and each of them is, hereby further authorized to enter into a reimbursement agreement with the provider of any Qualified Reserve Credit Facility to provide for the Authority's reimbursement of the provider for any amounts drawn under the Qualified Reserve Credit Facility in a manner consistent with the Indenture. Any determination of the Authorized Officials under this paragraph shall be based on the written advice of the Financial Advisor.

(e) Certificates. The Authorized Officials are, and each of them is, authorized and directed, in their official capacities, to execute and deliver to the Series 2018A/B Original Purchasers the certificates required by the Bond Purchase Agreement to be executed on behalf of the Authority.

(f) Delivery of Bonds. The Authorized Officials are, and each of them is, authorized and directed to make the necessary arrangements with the Series 2018A/B

Original Purchasers to establish the date, location, procedure and conditions for the delivery of the Series 2018A/B Bonds to the Series 2018A/B Original Purchasers. The Authorized Officials are, and each of them is, further authorized and directed to make the necessary arrangements for the printing of the Series 2018A/B Bonds, and the execution, authentication and delivery of the Series 2018A/B Bonds to DTC for the accounts of the Series 2018A/B Original Purchasers in accordance with this Resolution and the Indenture, and upon the receipt of payment of the purchase price, to cause such amount to be applied in accordance with the terms and provisions of this Resolution and the Indenture.

Section 5. Allocation of Proceeds of the Series 2018A/B Bonds: Tax Covenants.

(a) Allocation of Proceeds of the Series 2018A/B Bonds. The proceeds from the sale of the Series 2018A/B Bonds shall be allocated, deposited and credited for the purposes approved in this Resolution and as specified in the Twenty-Third Supplemental Indenture.

(b) Tax Covenants. The Board authorizes the Authorized Officials to approve the tax covenants, authorizations and agreements necessary to achieve and maintain the tax-exempt status of the Series 2018A/B Bonds.

Section 6. Twenty-Third Supplemental Indenture and Other Documents. The Authorized Officials are, and each of them is, authorized in connection with the issuance of the Series 2018A/B Bonds, to execute, acknowledge and deliver in the name of and on behalf of the Authority, the Twenty-Third Supplemental Indenture, substantially in the form thereof submitted to the Authority at or prior to this meeting, but with such changes therein as may be permitted by the Indenture and this Resolution and approved by the Authorized Officer executing the document on behalf of the Authority. The approval of those changes shall be conclusively evidenced by the execution of the document by an Authorized Official.

The Authorized Officials and any other member, officer or employee of the Authority are each authorized to execute and deliver, on behalf of the Authority, such other certificates, documents and instruments related to the Series 2018A/B Bonds as are necessary in connection with the transactions authorized in this Resolution, and to do all other things required of them or the Authority pursuant to the Indenture, the Twenty-Third Supplemental Indenture, the Bond Purchase Agreement and this Resolution.

No covenant, agreement or obligation contained herein shall be deemed to be a covenant, agreement or obligation of any present or future member of the Board or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board nor any officer of the Authority executing the Series 2018A/B Bonds shall be liable personally thereon or be subject to any personal liability or accountability by reason of the issuance thereof. No member of the Board or officer, employee, agent or advisor of the Authority shall incur any personal liability with respect to any other action taken by him pursuant to this Resolution or the Indenture or any other

document authorized by this Resolution, provided such member, officer, employee, agent or advisor acts in good faith.

Section 7. Official Statement; Continuing Disclosure. The Authorized Officials shall cause to be prepared and issued on behalf of the Authority, an official statement (the "Official Statement") relating to the original issuance of the Series 2018A/B Bonds. The Authorized Officials are, and each of them is, authorized to execute the Official Statement on behalf of the Authority, which shall be in substantially the form of the Official Statement submitted to the Authority at this meeting, with such changes as the Authorized Official who executes it may approve, the execution thereof on behalf of the Authority by an Authorized Official to be conclusive evidence of such authorization and approval (including approval of any such changes), and copies thereof are hereby authorized to be prepared and furnished to the Series 2018A/B Original Purchasers for distribution to prospective purchasers of the Series 2018A/B Bonds and other interested persons. The preliminary Official Statement, shall be "deemed substantially final" by the Authority within the meaning of Rule 15c2-12 of the Securities Exchange Commission, subject to completion as provided below.

The distribution by the Authority and by the Series 2018A/B Original Purchasers of the preliminary Official Statement and the Official Statement, in such form and with any changes as may be approved in writing by an Authorized Official, is hereby authorized and approved.

The Authority shall make sufficient copies of the Official Statement, with any supplements, available to the Series 2018A/B Original Purchasers to sell book entry interests in the Series 2018A/B Bonds, and will provide copies as appropriate to the Municipal Securities Rulemaking Board through its Electronic Municipal Market Access website at www.emma.msrb.org.

The Authorized Officials are each hereby authorized to furnish such information, to execute such instruments and to take such other action in cooperation with the Series 2018A/B Original Purchasers as may be reasonably requested to qualify the Series 2018A/B Bonds for offer and sale under the Blue Sky or other securities laws and regulations and to determine their eligibility for investment under the laws and regulations of such states and other jurisdictions of the United States of America as may be designated by the Series 2018A/B Original Purchasers; provided, however, that the Authority shall not be required to register as a dealer or broker in any such state or jurisdiction or become subject to the service of process in any jurisdiction in which the Authority is not now subject to such service.

The Authorized Officials are each hereby further authorized: (i) to supplement and complete the "deemed substantially final" preliminary Official Statement by affixing thereto or inserting therein information to identify the Series 2018A/B Original Purchasers and to specify the final principal amount, interest rates and redemption provisions of the Series 2018A/B Bonds, the price of the Series 2018A/B Bonds to the general public, any credit enhancement provisions with respect to the Series 2018A/B Bonds and any change in ratings of the Series 2018A/B Bonds resulting from such credit

enhancement, and such other information as is necessary to supplement and complete the Official Statement with the approved and agreed upon terms of Series 2018A/B Bonds, and (ii) to make such other changes to the preliminary Official Statement or the Official Statement as are, in the judgment of an Authorized Official, necessary and appropriate in order to make the preliminary Official Statement or the Official Statement not materially misleading and to comply with applicable securities laws or otherwise to enable the Authority to fulfill its obligations regarding the preliminary Official Statement or the Official Statement under the Bond Purchase Agreement.

The Authority hereby covenants and agrees that it will comply with and carry out all of the provisions of the Continuing Disclosure Agreement. Notwithstanding any other provision of this Resolution or the Indenture, failure of the Authority to comply with the Continuing Disclosure Agreement shall not be considered an Event of Default; however, any Holder of Series 2018A/B Bonds may, and the Trustee may (and, at the request of the Holders of at least 25% in aggregate principal amount of Outstanding Series 2018A/B Bonds, shall) take such actions as may be necessary and appropriate, including seeking mandamus or specific performance by court order, to cause the Authority to comply with its obligations under this paragraph. The Authorized Officials are, and each of them is, hereby authorized and directed to execute and deliver the Continuing Disclosure Agreement in substantially the form submitted to the Authority at or prior to this meeting with such changes therein as may be approved by the officer executing the Continuing Disclosure Agreement. The approval of those changes shall be conclusively evidenced by the execution of the Continuing Disclosure Agreement by an Authorized Official.

Section 8. General. The appropriate officers and employees of the Authority will do all things necessary and proper to implement and carry out the orders and agreements set forth or approved in this Resolution for the proper fulfillment of the purposes thereof. The Authority shall furnish to the Series 2018A/B Original Purchasers of the Series 2018A/B Bonds a true and certified transcript of all proceedings relating to the authorization and issuance of the Series 2018A/B Bonds along with other information as is necessary or proper with respect to the Series 2018A/B Bonds.

Section 9. Multiple Series. Notwithstanding anything herein to the contrary, each of the Series 2018A Bonds and the Series 2018B Bonds may be issued in one or more separate series or subseries, each bearing a distinctive designation, provided that the Series 2018A/B Bonds of all series in the aggregate, must satisfy the requirements and comply with the restrictions of this Resolution and the Indenture. Separate series and subseries of Series 2018A/B Bonds may be issued at the same or different times and so may have different dates of issuance. The Series 2018A/B Bonds of each series and subseries shall be designated as provided in the applicable Certificate of Award. A separate Certificate of Award may be delivered for each series or subseries, and each reference in this Resolution to the Certificate of Award shall refer to each and all such Certificates of Award. A separate Supplemental Trust Indenture may be entered into for each series or subseries, and each reference in this Resolution to the Twenty-Third Supplemental Indenture shall refer to each and all such Supplemental Trust Indentures, but any Supplemental Trust Indenture subsequent to the Twenty-Third

Supplemental Indenture shall bear a different designation. A separate Bond Purchase Agreement and Continuing Disclosure Agreement may be entered into for each series or subseries, and each reference in this Resolution to the Bond Purchase Agreement or to the Continuing Disclosure Agreement shall refer to each and all such Bond Purchase Agreements or Continuing Disclosure Agreements, respectively. A separate Official Statement may be prepared for each series or subseries, and each reference in this Resolution to the Official Statement shall refer to each and all such Official Statements.

Section 10. Effective Date. This Resolution shall take effect immediately.

Secretary to the Board of Directors

PRELIMINARY OFFICIAL STATEMENT DATED _____, 2018

NEW ISSUE – BOOK-ENTRY ONLY

RATINGS: Standard & Poor’s: []

Moody’s: []

See “RATINGS” herein

GREEN BOND ASSESSMENT RATING (for Series 2018A): Moody’s: []

In the opinion of Co-Bond Counsel, under existing law (i) assuming continuing compliance with certain covenants and the accuracy of certain representations, interest on the Series 2018A/B Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax; however, interest on the Series 2018A/B Bonds is included in the calculation of a corporation’s adjusted current earnings for purposes of, and thus may be subject to, the corporate alternative minimum tax (applicable only to taxable years beginning before January 1, 2018), and (ii) the Series 2018A/B Bonds and the interest thereon are exempt from District taxation, except estate, inheritance and gift taxes. Interest on the Series 2018A/B Bonds may be subject to certain federal taxes imposed only on certain corporations. For a more complete discussion of the tax aspects, see “TAX MATTERS” herein.

[DC Water Logo]

\$100,000,000*

\$200,000,000*

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Senior Lien Revenue Bonds,
Series 2018A
(Green Bonds)

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Senior Lien Revenue Bonds,
Series 2018B

Dated: Date of Delivery

Due: As shown on inside cover

Authority for Issuance. The Public Utility Senior Lien Revenue Bonds, Series 2018A (Green Bonds) (the “Series 2018A Bonds”) and the Public Utility Senior Lien Revenue Bonds, Series 2018B (the “Series 2018B Bonds” and, together with the Series 2018A Bonds, the “Series 2018A/B Bonds”) are being issued by the District of Columbia Water and Sewer Authority (the “Authority,” also commonly referred to as “DC Water”) pursuant to a Master Indenture of Trust, dated as of April 1, 1998 (the “Master Indenture”), by and between the Authority and Wells Fargo Bank, N.A., as trustee (the “Trustee”), as amended and supplemented from time to time, including as amended and supplemented by the Twenty-Third Supplemental Indenture of Trust, by and between the Authority and the Trustee, dated the date of issuance and delivery of the Series 2018A/B Bonds (the “Twenty-Third Supplemental Indenture” and, together with the Master Indenture, as previously amended and supplemented, the “Indenture”).

Use of Proceeds. The proceeds of the Series 2018A Bonds will be used to pay (i) a portion of the costs of the Authority’s DC Clean Rivers Project (as defined herein (the “Series 2018A Project”), and (ii) the costs of issuing the Series 2018A Bonds. The proceeds of the Series 2018B Bonds will be used to (i) pay a portion of the costs of certain capital improvements to the System (the “Series 2018B Project”), (ii) repay the outstanding Series B CP Notes (as defined herein), and (iii) pay the costs of issuing the Series 2018B Bonds.

Denominations and Interest. The Series 2018A/B Bonds will be issued initially in denominations of \$5,000 or any integral multiple thereof and will mature in the years and amounts and accrue interest from their date of delivery at the rates set forth on the inside cover page of this Official Statement. Interest on the Series 2018A/B Bonds will be calculated on the basis of a 360-day year of twelve 30-day months, payable semi-annually on each April 1 and October 1, commencing October 1, 2018.

Book-Entry Only. The Series 2018A/B Bonds will be issued in fully registered form in the name of Cede & Co., as nominee of The Depository Trust Company (“DTC”) under the book-entry only system maintained by DTC or its nominee. So long as Cede & Co. is the registered owner of the Series 2018A/B Bonds, the principal of and premium, if any, and interest on the Series 2018A/B Bonds will be payable by the Trustee to DTC, which will in turn remit such payments to its participants for subsequent disbursement to beneficial owners of the Series 2018A/B Bonds, as more fully described herein. See APPENDIX E – “DTC Book-Entry Only System.”

Redemption. The Series 2018A/B Bonds are subject to redemption prior to maturity, as more fully described herein. See “THE SERIES 2018A/B BONDS – Redemption Provisions.”

Security. The Series 2018A/B Bonds will be secured by a lien on and a pledge of Net Revenues that will be on a parity with the lien on and a pledge of Net Revenues that secures any Outstanding Senior Debt and other Senior Debt the Authority may issue from time to time in the future, all as further described and defined herein. The Series 2018A/B Bonds will not be secured by a Debt Service Reserve Fund. See “SECURITY FOR THE SERIES 2018A/B BONDS.”

Limited Obligation. The Series 2018A/B Bonds shall be special, limited obligations of the Authority payable solely from the Net Revenues of the Authority. The Series 2018A/B Bonds shall be without recourse to the District of Columbia (the “District”). The Series 2018A/B Bonds shall not be general obligations of the District or of the Authority. The Series 2018A/B Bonds shall not be a pledge of or involve the faith and credit or the taxing power of the District, shall not constitute a debt of the District, the United States of America or any User Jurisdiction (as defined herein) or any agency or instrumentality of any User Jurisdiction, and neither the District, the United States, any User Jurisdiction nor any agency or instrumentality of any User Jurisdiction shall be liable thereon. The Series 2018A/B Bonds also shall not constitute the lending of the public credit for private undertakings as prohibited by the Home Rule Act (as defined herein). The Authority has no taxing power.

Green Bonds. The Series 2018A Project consists of a portion of the DC Clean Rivers Project. The Authority has designated the Series 2018A Project as a “Green Project” and has designated the Series 2018A Bonds as “Green Bonds” based upon, among other things, an independent assessment of the DC Clean Rivers Project and of the Authority applying environmental, social and governance criteria. See “INTRODUCTION – Use of the Series 2018A/B Bond Proceeds.”

[Clean Rivers Logo]

The Series 2018A/B Bonds are offered when, as and if issued by the Authority and received by the Underwriters (as defined herein). Certain legal matters with respect to the issuance of the Series 2018A/B Bonds are subject to the approval of Squire Patton Boggs (US) LLP and Leftwich LLC, Co-Bond Counsel to the Authority. Squire Patton Boggs (US) LLP and Leftwich LLC also serve as Co-Disclosure Counsel to the Authority in connection with the preparation of this Official Statement. Certain legal matters will be passed upon for the Authority by its General Counsel and for the Underwriters by Orrick, Herrington & Sutcliffe LLP and McKenzie & Associates, Co-Underwriters’ Counsel. It is expected that the Series 2018A/B Bonds will be available for delivery through the facilities of DTC in New York, New York on or about _____, 2018.

GOLDMAN SACHS & CO. LLC
Joint Bookrunner

BARCLAYS
Joint Bookrunner

BofA/Merrill Lynch

J.P. Morgan

Loop Capital Markets

Ramirez & Co.

This cover page, including the inside cover page, contains certain information for quick reference only. It is not a summary of this Official Statement. Prospective purchasers must read the entire Official Statement to obtain the information essential to the making of an informed investment decision.

Dated: _____, 2018

* Preliminary; subject to change.

THIS PRELIMINARY OFFICIAL STATEMENT AND THE INFORMATION CONTAINED IN IT ARE SUBJECT TO COMPLETION AND AMENDMENT IN A FINAL OFFICIAL STATEMENT. Under no circumstances shall this Preliminary Official Statement constitute an offer to sell or the solicitation of an offer to buy, and there shall not be any sale of the Bonds offered hereby, in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of that jurisdiction.

MATURITY SCHEDULE

\$100,000,000*
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Senior Lien Revenue Bonds
Series 2018A
(Green Bonds)

Serial Bonds

Year (Oct. 1)	Principal Amount	Interest Rate	Yield	CUSIP No.†
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Term Bonds

\$[] []% Term Bonds, due October 1, 20[], Yield []%* CUSIP []†

\$200,000,000*
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Senior Lien Revenue Bonds
Series 2018B

Serial Bonds

Year (Oct. 1)	Principal Amount	Interest Rate	Yield	CUSIP No.†
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Term Bonds

\$[] []% Term Bonds, due October 1, 20[], Yield []%** CUSIP []†

* Preliminary; subject to change.

** Yield calculated to first optional redemption date of [] 1, 20[].

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5000 Overlook Avenue, S.W.
Washington, D.C. 20032
(202) 787-2000
www.dewater.com

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Ellen O. Boardman
Rachna Butani
Timothy L. Firestine
David Franco
Bradley Frome
Bonnie Kirkland
Nicholas A. Majett
James W. Patteson
Emile Thompson
Vacant

Jurisdiction

District of Columbia
District of Columbia
District of Columbia
Montgomery County
District of Columbia
Prince George's County
Montgomery County
Prince George's County
Fairfax County
District of Columbia
District of Columbia

Alternate Board Members

Krystal Brumfield
Patty Bubar
Kendrick Curry
Ivan Frishberg
Anthony Giancola
Howard Gibbs
Fariba Kassiri
Sarah Motsch
Adam Ortiz
Jed Ross
Vacant

Jurisdiction

District of Columbia
Montgomery County
District of Columbia
District of Columbia
District of Columbia
District of Columbia
Montgomery County
Fairfax County
Prince George's County
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Title

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Chief Financial Officer
Chief Engineer
Acting General Counsel
Chief of Staff
Chief Operating Officer
Assistant General Manager of Customer Care & Operations
Director of DC Clean Rivers Project
Assistant General Manager of Wastewater Treatment

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Amawalk Consulting Group LLC
Johnson, Mirmiran, & Thompson, Inc.
PFM Financial Advisors LLC and G~Entry Principle, P.C.

Co-Bond Counsel and
Co-Disclosure Counsel
Financial Feasibility Consultant
Engineering Feasibility Consultant
Co-Financial Advisors

IMPORTANT NOTICES

No Offering May be Made Except by this Official Statement. No dealer, broker, salesperson or other person has been authorized by the Authority or the Underwriters to give any information or to make any representations with respect to this offering, other than as contained in this Official Statement and, if given or made, such other information or representations must not be relied upon as having been authorized by the Authority or the Underwriters.

No Unlawful Offer, Solicitation or Sale. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the Series 2018A/B Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale.

Use of this Official Statement. This Official Statement is provided in connection with the sale of the Series 2018A/B Bonds referred to herein and may not be reproduced or be used, in whole or in part, for any other purpose. This Official Statement is not to be construed as a contract or agreement among the Authority, the Underwriters and the purchasers or owners of any offered Series 2018A/B Bonds. This Official Statement is being provided to prospective purchasers either in bound printed form (“original bound format”) or in electronic format on the following website: www.munios.com. This Official Statement may be relied upon only if it is in its original bound format or if it is printed in its entirety directly from such website.

Preparation of this Official Statement. The information contained in this Official Statement has been derived from information provided by the Authority and other sources which are believed to be reliable. Additional information, including financial information, concerning the Authority is available from the Authority’s website. Any such information that is inconsistent with the information set forth in this Official Statement should be disregarded. The information and expressions of opinions herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the Authority since the date hereof. Such information and expressions of opinion are made for the purpose of providing information to prospective investors and are not to be used for any other purpose or relied on by any other party. The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their respective responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

No Registration or Approval. The Series 2018A/B Bonds have not been registered with the U.S. Securities and Exchange Commission (the “SEC”) under the Securities Act of 1933, as amended, in reliance upon exceptions contained in the Act. Neither the SEC nor any other federal or state securities commission or regulatory authority has approved or disapproved of the Series 2018A/B Bonds or passed upon the accuracy or adequacy of this Official Statement. Any representation to the contrary is a criminal offense.

Public Offering Prices. In connection with this offering, the underwriters may over allot or effect transactions which stabilize or maintain the market price of the Series 2018A/B Bonds at a level above that which might otherwise prevail in the open market; such stabilizing, if commenced, may be discontinued at any time.

Forecasts and Forward-Looking Statements. Statements contained in this Official Statement that do not reflect historical facts are forward-looking statements. Forward-looking statements can be identified by words such as “estimate,” “project,” “anticipate,” “expect,” “intend,” “believe,” “plan,” “budget,” “predict,” “may,” “should,” and similar expressions. Projections, forecasts, assumptions, expressions of opinions, estimates and other forward-looking statements are not to be construed as representations of fact and are qualified in their entirety by the cautionary statements set forth in this Official Statement. The forward-looking statements are based on various assumptions and estimates and are inherently subject to risks and uncertainties, including, but not limited to, risks and uncertainties relating to the possible invalidity of the underlying assumptions and estimates and possible changes or developments in various important factors. Accordingly, actual results may vary from the projections, forecasts and estimates contained in this Official Statement and such variations may be material, which could affect the ability to fulfill some or all of the obligations under the Series 2018A/B Bonds. All forward-looking statements included in this Official Statement are based on information available on the date of this Official Statement, and the Authority assumes no obligation to update any such forward-looking statements.

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OFFICIAL STATEMENT

\$100,000,000*

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Senior Lien Revenue Bonds, Series 2018A (Green Bonds)**

\$200,000,000*

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Senior Lien Revenue Bonds, Series 2018B**

INTRODUCTION

General

This Official Statement, including the cover page and the appendices hereto (the “Official Statement”), is provided in connection with the issuance by the District of Columbia Water and Sewer Authority (the “Authority,” also commonly referred to as “DC Water”) of its Public Utility Senior Lien Revenue Bonds, Series 2018A (Green Bonds), in the original principal amount of \$100,000,000* (the “Series 2018A Bonds”) and its Public Utility Senior Lien Revenue Bonds, Series 2018B Bonds, in the original principal amount of \$200,000,000* (the “Series 2018B Bonds” and the Series 2018A Bonds, each a “Series” and, together, the “Series 2018A/B Bonds”).

Capitalized terms used in this Official Statement and not otherwise defined herein shall have the meanings ascribed thereto in APPENDIX C – “Glossary and Summary of the Indenture.”

Authorization

The Series 2018A/B Bonds are being issued pursuant to the Master Indenture of Trust, dated as of April 1, 1998 (the “Master Indenture”), as amended and supplemented to the date of delivery of the Series 2018A/B Bonds (the “Indenture”), including by the Twenty-Third Supplemental Indenture of Trust, to be dated the date of issuance and delivery of the Series 2018A/B Bonds (the “Twenty-Third Supplemental Indenture”), each by and between the Authority and Wells Fargo Bank, N.A., as trustee (the “Trustee”), and a resolution of the Authority’s Board of Directors passed at its _____, 2018 meeting authorizing the issuance of the Series 2018A/B Bonds.

District of Columbia Water and Sewer Authority

The Authority is an independent authority of the District of Columbia (the “District”), which was created in April 1996 and began operating on October 1, 1996, under and pursuant to an act of the Council of the District (the “Council”), which is entitled the “Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996” (D.C. Law 11-111) (D.C. Code §§ 34-2201.01 *et seq.*), as amended and supplemented (the “Act”), and an act of the U.S. Congress entitled the “District of Columbia Water and Sewer Authority Act of 1996” (Public Law 104-184) (the “Federal Act”). The Council was authorized to adopt the Act pursuant to the authority set forth in the District of Columbia Self-Government and Governmental Reorganization Act (P.L. 93-198; 87 Stat 777; D.C. Official Code, 2006 Repl., §§ 1-201 *et seq.*), as amended (the “Home Rule Act”). See “THE AUTHORITY.”

The Authority provides retail water and wastewater services to approximately 700,000 residents in the District and wholesale wastewater conveyance and treatment to approximately 1.6 million people in major suburban areas of Prince George’s and Montgomery Counties in Maryland and Fairfax and Loudoun Counties in Virginia (collectively, the “User Jurisdictions”). Pursuant to the Act, the District authorized the Authority to use all of the property and assets of the water distribution system (the “Water System”) and the wastewater collection, treatment and disposal system (the “Wastewater System” and, together with the Water System, the “System”) formerly operated by the District, for as long as any revenue bonds of the Authority, including the Series 2018A/B Bonds, remain outstanding. In accordance with the Act, the District retains full legal title to and a complete equitable interest in the System. See “THE SYSTEM.”

The Authority’s service area consists of the District and certain areas of the User Jurisdictions and, therefore, certain demographic, economic and statistical information relating to the District and the User Jurisdictions may be relevant to prospective purchasers of the Series 2018A/B Bonds. The Authority makes no representation as to the accuracy or completeness of information derived from other sources.

* Preliminary; subject to change.

Use of the Series 2018A/B Bond Proceeds

The proceeds of the Series 2018A Bonds will be used to pay (i) a portion of the costs of the DC Clean Rivers Project (as defined herein) (the “Series 2018A Project”) and (ii) the costs of issuing the Series 2018A Bonds. For a description of the DC Clean Rivers Project, see “CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Combined Sewer Overflow Projects.” The Authority has designated the Series 2018A Project as a “Green Project” and the Series 2018A Bonds as “Green Bonds” based on, among other things, an independent assessment by VIGEO of the DC Clean Rivers Project and the Authority’s environmental, social, and governance characteristics. The terms “Green Project” and “Green Bond” are neither defined in, nor related to the Indenture, and their use herein is for identification purposes only and is not intended to provide or imply to provide that a holder of the Series 2018A Bonds is entitled to any additional security other than as provided in the Indenture. Moody’s has assigned a Green Bond Assessment of [] to the Series 2018A Bonds. See “RATINGS.”

The proceeds of the Series 2018A Bonds to be used to pay the costs of the Series 2018A Project will be deposited in a segregated account of the Construction Fund established and maintained under the Indenture (the “2018A Construction Account”). Such proceeds will be invested in Permitted Investments pursuant to the Indenture. See “PLAN OF FINANCE.” The Authority has committed to report annually on the allocation of such proceeds to the Green Project and on certain environmental and social outcomes of the Green Project and on certain governance matters of the Authority until such proceeds are fully allocated.

The proceeds of the Series 2018B Bonds will be used to (i) pay the costs of certain capital improvements to the System (the “Series 2018B Project”), (ii) repay the outstanding Series B CP Notes (as defined herein), and (iii) pay the costs of issuing the Series 2018B Bonds.

The proceeds of the Series 2018B Bonds to be used to pay the costs of the Series 2018B Project will be deposited in a segregated account of the Construction Fund established and maintained under the Indenture (the “2018B Construction Account”). Such proceeds will be invested in Permitted Investments pursuant to the Indenture. See “PLAN OF FINANCE” and “CAPITAL IMPROVEMENT PROGRAM.”

Security and Source of Payment

Under the Indenture, the Authority may issue “Senior Debt” and “Subordinate Debt” from time to time. The Series 2018A/B Bonds will constitute Senior Debt under the Indenture. The Series 2018A/B Bonds will be secured by a senior lien on and a pledge of Net Revenues that is on a parity with the lien on and a pledge of Net Revenues that secures any Outstanding Senior Debt and other Senior Debt the Authority may issue from time to time in the future, without preference, priority or distinction of any Senior Debt over any other Senior Debt. Under the Indenture, the Authority may also issue “Subordinate Debt” which is secured by a lien on and a pledge of Net Revenues subordinate to the Series 2018A/B Bonds and other Senior Debt. Prior to the issuance of the Series 2018A/B Bonds, \$796,080,000 aggregate principal amount of Senior Debt and \$2,341,553,443 aggregate principal amount of Subordinate Debt will be outstanding (including \$85 million of the Commercial Paper Notes, which is expected to be repaid with the proceeds of the Series 2018B Bonds). See “OUTSTANDING INDEBTEDNESS.” The Series 2018A/B Bonds will be payable solely from Net Revenues after the funding of certain Funds and Accounts established under the Indenture. The principal sources of Net Revenues are the payments received by the Authority pursuant to its rates and charges imposed for the use of and the services furnished by the System, as described in the Indenture. See “RATES AND CHARGES.” The Series 2018A/B Bonds will not be secured by a Debt Service Reserve Fund.

The Series 2018A/B Bonds shall be special and limited obligations of the Authority. The Series 2018A/B Bonds shall be without recourse to the District. The Series 2018A/B Bonds shall not be general obligations of the District or of the Authority. The Series 2018A/B Bonds shall not be a pledge of or involve the faith and credit or the taxing power of the District, shall not constitute a debt of the District, the United States of America or any User Jurisdiction or any agency or instrumentality of any User Jurisdiction, and neither the District, the United States, any User Jurisdiction, nor any agency or instrumentality of any User Jurisdiction shall be liable thereon. The Series 2018A/B Bonds also shall not constitute the lending of the public credit for private undertakings as prohibited by the Home Rule Act of the District. The Authority has no taxing power.

Rate Covenant and Financial Forecast

The Master Indenture includes a rate covenant as described below. Rates, fees and charges are established by the Authority and are not subject to regulatory approval, nor are they subject to other regulations under current law. In general, and as more fully described herein, the Rate Covenant provides that the Authority covenants to fix, charge, revise and collect rates, fees and other charges for the use of and the services furnished by the System sufficient in each Fiscal Year so that:

(i) Revenues collected by the Authority in such Fiscal Year will be sufficient to pay at least the actual Operating Expenses and required deposits and payments; and

(ii) Net Revenues shall be sufficient in each Fiscal Year to be at least equal to the sum of (a) an amount equal to one hundred and twenty percent (120%) of the Annual Debt Service on Senior Debt; and (b) one hundred percent (100%) of the Annual Debt Service on Subordinate Debt.

See “SECURITY FOR THE SERIES 2018A/B BONDS – Rate Covenant.” Additional financial information, including certain projections of revenues, disbursements and debt service coverage, is included in “FINANCIAL OPERATIONS – Projected Financial Operations” herein.

Capital Improvement Program

The Authority utilizes an annually adopted ten-year Capital Improvement Program (the “Capital Improvement Program” or the “CIP”) to plan and manage the capital investments necessary to fulfill its service missions, comply with regulatory requirements and preserve and upgrade its water and wastewater systems. The Authority updates the CIP annually in conjunction with its budget process, based on detailed project review by engineering staff, external engineering consultants retained by the Authority, operations staff and senior management. The Authority intends to finance the costs of the CIP from a number of sources, including proceeds of the Series 2018A/B Bonds, future bonds and other forms of indebtedness, grants, certain operating revenues and wholesale customer contributions. As more fully described herein, the Authority estimates the cost of the current ten-year CIP at \$4.0 billion on a cash disbursement basis. The Board approved the CIP on March 1, 2018. See “CAPITAL IMPROVEMENT PROGRAM.”

Miscellaneous

This Official Statement contains brief descriptions of the Series 2018A/B Bonds, the Authority, the System, the Capital Improvement Program, the Indenture and certain provisions of the Act. Such descriptions and the summaries of and references to all documents, statutes, reports and other instruments referred to herein do not purport to be comprehensive or definitive, and each such document, statute, report or instrument is qualified in its entirety by reference to each such document, statute, report or instrument, copies of which are available from the Authority. All references to the Series 2018A/B Bonds are qualified in their entirety by reference to the definitive forms thereof and the information with respect thereto contained in the Indenture. Insofar as any statements are made in this Official Statement involving matters of opinion, regardless of whether expressly so stated, they are intended merely as such and not as representations of fact.

The information in this Official Statement is subject to change without notice, and neither the delivery of this Official Statement, nor any sale made hereunder shall under any circumstances create an implication that there has been no change in the affairs of the Authority since the date hereof. This Official Statement is not to be construed as a contract or agreement between the Authority or the Underwriters and the purchasers or owners of any of the Series 2018A/B Bonds.

Inquiries regarding information about the Authority and the financial matters contained in this Official Statement may be directed to the Chief Financial Officer of the Authority at (202) 787-2000.

THE SERIES 2018A/B BONDS

General

The Series 2018A/B Bonds will be dated their date of delivery and will bear interest at the rates set forth on the inside cover page of this Official Statement. Interest on the Series 2018A/B Bonds will be calculated on the basis of a 360-day year of twelve 30-day months, payable semi-annually on each April 1 and October 1, commencing October 1, 2018 (each, an “Interest Payment Date”), and will mature on the dates and in the principal amounts as set forth on the inside cover page of this Official Statement.

Book-Entry Only System

The Series 2018A/B Bonds will be issued in fully registered form and, when issued, will be held by DTC or its nominee, as securities depository with respect to the Series 2018A/B Bonds. Individual purchases of interests in the Series 2018A/B Bonds will be made in book-entry form only, in the principal amount of \$5,000 or any integral multiple thereof. Individual purchasers will not receive physical delivery of bond certificates. So long as Cede & Co. is the registered owner of the Series 2018A/B Bonds as nominee of DTC, references herein to the holders or registered owners of the Series 2018A/B Bonds will mean Cede & Co. and will not mean the beneficial owners (“Beneficial Owners”) of the Series 2018A/B Bonds. Beneficial interests in the Series 2018A/B Bonds may be held through DTC directly as a participant or indirectly through organizations that are participants in such system. See APPENDIX E – “DTC Book-Entry Only System.”

As long as the Series 2018A/B Bonds are held by DTC or its nominee, interest will be paid to Cede & Co., as nominee of DTC, in same-day funds on each Interest Payment Date. If the book-entry only system is discontinued, bond certificates will be delivered as described in the Indenture, and Beneficial Owners (as defined herein) will become registered owners of the Series 2018A/B Bonds (the “Bondholders”). If the book-entry only system is discontinued, interest on the Series 2018A/B Bonds shall be payable on each Interest Payment Date by check or draft mailed to the registered owner at the address as it appears on the 15th day of the month preceding an Interest Payment Date on the registration books kept by the Trustee.

Neither the Authority, the Trustee nor the Underwriters will have any responsibility or obligation to the Participants, DTC or the persons for whom they act with respect to (i) the accuracy of any records maintained by DTC or by any Direct or Indirect Participant of DTC, (ii) the providing of notice or payments to the Direct Participants, Indirect Participants or beneficial owners, (iii) the selection by DTC or by any Direct or Indirect Participant of any beneficial owner to receive payment in the event of a partial redemption of the Series 2018A/B Bonds or (iv) any other action taken by DTC or its partnership nominee as owner of the Series 2018A/B Bonds. For more information on DTC and the book-entry only system, see APPENDIX E – “DTC Book-Entry Only System.”

Redemption Provisions

Optional Redemption

The Series 2018A/B Bonds maturing on or after October 1, 20[___], are subject to optional redemption prior to maturity on or after [___] 1, 20[___], from any source, in whole or in part on any date, in such order of maturities as shall be determined by the Authority (and by lot within a maturity), at a redemption price of 100% of the principal amount thereof, together with accrued interest, if any, to the redemption date.

Mandatory Redemption

The Series 2018A Bonds maturing on October 1, 20[___] (the “Series 2018A 20[___] Term Bonds”) are subject to mandatory sinking fund redemption in part (in accordance with the procedures described below in “ – Selection of the Series 2018A/B Bonds to be Redeemed”), prior to maturity on October 1, in the years set forth below, at a redemption price equal to the principal amount of the Series 2018A Bonds called for redemption plus interest accrued to the redemption date.

Series 2018A 20[] Term Bonds

Year	Amount
†	
† Final Maturity	

The Series 2018B Bonds maturing on October 1, 20[] (the “Series 2018B Term Bonds”), are subject to mandatory sinking fund redemption in part (in accordance with the procedures described below in “ – Selection of the Series 2018A/B Bonds to be Redeemed”), prior to maturity on October 1, in the years set forth below, at a redemption price equal to the principal amount of the Series 2018B Bonds called for redemption plus interest accrued to the redemption date.

Series 2018B 20[] Term Bonds

Year	Amount
†	
† Final Maturity	

The principal amount of the Series 2018A/B Bonds required to be redeemed on any redemption date pursuant to the operation of mandatory sinking fund redemption provisions will be reduced, at the option of the Authority, by the principal amount of any Series 2018A/B Bond scheduled for redemption on such redemption date or dates, that, at least 45 days prior to the mandatory sinking fund redemption date, (i) has been acquired by the Authority and delivered to the Trustee for cancellation, (ii) has been acquired and canceled by the Trustee, at the direction of the Authority, at a price not exceeding the principal amount of such Series 2018A/B Bond plus accrued interest to the date of acquisition thereof, or (iii) has been redeemed pursuant to the optional redemption provisions and not previously credited to a scheduled mandatory redemption. Upon such purchase of such Series 2018A/B Bonds, the Trustee shall then credit an amount equal to the principal of such Series 2018A/B Bonds so purchased towards the sinking fund installments for the Series 2018A/B Bonds of such maturity in such order as may be determined by the Authority in a certificate of an Authorized Official, which will direct the reduction of a ratable portion of each annual mandatory sinking fund installment requirement in accordance with the procedures set forth under “ – Selection of the Series 2018A/B Bonds to be Redeemed” below.

[Make-Whole Redemption provisions, if applicable]

Selection of the Series 2018A/B Bonds to be Redeemed

The particular maturities of the Series 2018A/B Bonds to be redeemed at the option of the Authority will be determined by the Authority in its sole discretion.

If less than all of a Series 2018A/B Bond of a maturity is called for prior redemption and if the Series 2018A/B Bonds are registered in book-entry only form and DTC or a successor securities depository is the sole registered owner of such Series 2018A/B Bonds, the particular Series 2018A/B Bonds or portions thereof to be redeemed shall be selected by DTC in accordance with DTC procedures, or, if the book-entry only system is discontinued, by the Trustee by lot in such manner as the Trustee in its discretion may determine. In either case, (i) the portion of any Series 2018A/B Bond to be redeemed shall be in the principal amount of \$5,000 or integral multiples thereof and (ii) in selecting Series 2018A/B Bonds for redemption, each Series 2018A/B Bond shall be considered as representing that number of the Series 2018A/B Bonds that is obtained by dividing the principal amount of such Series 2018A/B Bond by \$5,000.

Notice of Redemption

The Authority shall not be responsible for mailing a notice of redemption to anyone other than DTC or another qualified securities depository or its nominee unless no qualified securities depository is the registered owner of the Series 2018A/B Bonds. If no qualified securities depository is the registered owner of the Series 2018A/B Bonds, a notice of redemption shall be mailed to the registered owners of the Series 2018A/B Bonds. See “THE SERIES 2018A/B BONDS – Book-Entry Only System.”

The Trustee shall send notice of the call for redemption, identifying the Series 2018A/B Bonds or portions thereof to be redeemed, not fewer than 20 days prior to the redemption date or such shorter period as may be acceptable to DTC while the Series 2018A/B Bonds are in book-entry form and registered to DTC (i) by registered or certified mail or overnight express delivery, to the holder of each Series 2018A/B Bond to be redeemed at the address as it appears on the registration books kept by the Trustee, (ii) by registered or certified mail or overnight express delivery, to all organizations registered as securities depositories with the SEC and (iii) to each nationally recognized municipal securities information repository designated as such by the SEC. Failure to give any notice specified in (i) above, or any defect therein, shall not affect the validity of any proceedings for the redemption of any Series 2018A/B Bond with respect to which no such failure or defect has occurred. Failure to give any notice specified in (ii) or (iii) above, or any defect therein, shall not affect the validity of any proceedings for the redemption of any Series 2018A/B Bond with respect to which the notice specified in (i) above is correctly given. If the notices of redemption are sent before there is sufficient money on deposit in the applicable fund or account to pay the full redemption price of the Series 2018A/B Bonds, the notice of redemption of the Series 2018A/B Bonds shall specify that the redemption is conditional upon there being on deposit in the applicable fund or account on the redemption date sufficient money to pay the full redemption price of the Series 2018A/B Bonds to be redeemed.

Any notice of redemption shall be mailed by first-class mail, postage prepaid. Notice of redemption also shall be given by Electronic Means to a Depository. A certificate of the Trustee shall conclusively establish the mailing of any such notice for all purposes.

PLAN OF FINANCE

Series 2018A Bonds. Net proceeds of the Series 2018A Bonds will be used to pay the costs of the Series 2018A Project. For a description of the DC Clean Rivers Project (of which the Series 2018A Project is a portion) in this Official Statement, see “CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Combined Sewer Overflow Projects.” Such proceeds will be deposited in the 2018A Construction Account. The proceeds therein will be invested in Permitted Investments pursuant to the Indenture. The remainder of the proceeds of the Series 2018A Bonds will be used to pay costs of issuing the Series 2018A Bonds.

Series 2018B Bonds. A portion of the net proceeds of the Series 2018B Bonds will be used to pay the costs of the Series 2018B Project. See “CAPITAL IMPROVEMENT PROGRAM.” Such proceeds will be deposited in the 2018B Construction Account. The proceeds therein will be invested in Permitted Investments pursuant to the Indenture.

A portion of the net proceeds of the Series 2018B Bonds will be used to repay the outstanding Series B CP Notes. The remainder of the proceeds of the Series 2018B Bonds will be used to pay costs of issuing the Series 2018B Bonds.

SOURCES AND USES OF FUNDS

The proceeds of the Series 2018A/B Bonds are expected to be applied as follows:

Sources of Funds	Series 2018A Bonds	Series 2018B Bonds	Total
Par Amount			
Original Issue Discount/Premium			
Total Sources			
Uses of Funds			
Deposit to 2018A Construction Account			
Deposit to 2018B Construction Account			
Deposit to Subordinated Principal and Interest Account*			
Underwriters' Discount			
Other Costs of Issuance			
Total Uses			

* Deposit will be used to repay the outstanding Series B CP Notes.

SECURITY FOR THE SERIES 2018A/B BONDS

Pledge of the Master Indenture

The Series 2018A/B Bonds are authorized and when issued will be issued in accordance with the statutes of the District and the United States, and will constitute valid and legally binding special and limited obligations of the Authority.

The Series 2018A/B Bonds will constitute Senior Debt under the Indenture, payable solely from the Net Revenues of the System. The Series 2018A/B Bonds are payable and secured on a parity with the Outstanding Senior Debt and all other Senior Debt hereafter issued or incurred by the Authority pursuant to the Indenture. The Authority expects to issue additional Senior Debt and Subordinate Debt in the future. For a listing of the Authority's Outstanding Senior Debt and Subordinate Debt, see "OUTSTANDING INDEBTEDNESS."

The Master Indenture defines "Senior Debt" as Bonds and Other System Indebtedness, and "Bonds" as bonds, notes or other obligations issued pursuant to the Master Indenture, but not including Other System Indebtedness and Subordinate Debt. "Other System Indebtedness" means any indebtedness issued or incurred in connection with the System that the Authority is required, or has elected, to treat as payable on a parity basis with the Bonds with respect to the pledge of Net Revenues. "Subordinate Debt" means bonds, notes or other obligations issued in connection with the System that are expected to be paid from and have pledged to their payment Net Revenues on a subordinate lien basis after the pledge of Net Revenues to Senior Debt.

The Indenture pledges to the payment of the principal of and premium, if any, and interest on all Senior Debt and Subordinate Debt (at their respective levels of priority of security) that may from time to time be outstanding: (i) all right, title and interest of the Authority in and to the Net Revenues; (ii) all moneys or securities in any of the funds or Accounts established under the Indenture (other than the Operating Fund, and all Accounts in the Construction Fund other than the Construction Account, except to the extent a specific Account or subaccount therein relates, and is pledged, solely to specific series of Bonds or Subordinate Debt); and (iii) all rights and privileges of every kind and nature appurtenant to, all proceeds of, and all right, title and claim which the Authority now or may hereafter acquire in the aforesaid property, subject only to the provisions of the Indenture and the Act relating to the use and application thereof. Furthermore, the Indenture provides for specific Accounts in the Debt Service Reserve Fund to be pledged solely to the Senior Debt to which they relate and specific Accounts in the Subordinate Debt Service Reserve Fund to be pledged solely to the Subordinate Debt to which they relate. No Account in the Debt Service Reserve Fund will be established for the Series 2018A/B Bonds.

Direct Payments

General. The Series 2010A Bonds are Build America Bonds, a form of “direct payment bonds” issued pursuant to the American Recovery and Reinvestment Act of 2009 (the “Recovery Act”), which allowed an issuer to apply to receive subsidy payments directly from the Secretary of the United States Treasury. An amount equal to thirty-five percent (35%) of the Authority’s semiannual interest payments on the Series 2010A Bonds is to be paid to the Authority by the federal government in the form of Direct Payments.

The Direct Payments on the Series 2010A Bonds do not constitute Revenues under the Indenture and so are not part of the pledged Net Revenues, but, upon receipt, all Direct Payments are required to be deposited by the Authority or the Trustee into the appropriate subaccount in the Subordinate Interest Account in the Subordinate Bond Fund and, upon deposit, become available to be applied solely to the purposes for which the Indenture permits funds in such subaccount, account and fund to be applied, including to pay debt service on the Series 2010A Bonds.

Rate Covenant Amendment. On October, 26, 2010, the Twelfth Supplemental Indenture amended the Master Indenture to provide that, for purposes of determining the Authority’s compliance with the Rate Covenant, the amount of any Direct Payment received by the Authority or the Trustee in any Fiscal Year shall be credited against (i) Annual Debt Service on Senior Debt in such Fiscal Year if such Direct Payment is related to Senior Debt or (ii) Annual Debt Service on Subordinate Debt in such Fiscal Year if such Direct Payment is related to Subordinate Debt. This amendment became effective upon the execution of the Twelfth Supplemental Indenture.

Additional Bonds Test Amendment. The Twelfth Supplemental Indenture also amended the Master Indenture to provide that, subject to the requirements of the Master Indenture for obtaining bondholder consent, for the purposes of computing Annual Debt Service on any Direct Payment BABs or Other System Indebtedness as to which Direct Payments are expected to be made (whether previously issued or proposed to be issued by the Authority) in connection with any proposed issuance of additional Bonds or Other System Indebtedness, the amount of any Direct Payment expected to be received by the Authority or the Trustee in the then current or any future Fiscal Year shall be credited against the Annual Debt Service on such Direct Payment BABs. This amendment became effective on November 20, 2014, upon the issuance of the Authority’s Series 2014C Bonds, in connection with which the Authority obtained the required consent of a majority (specifically, 50.5%) of the Holders of the Outstanding Bonds.

No Assurances. No assurances are provided that the Authority will receive the Direct Payments. The Direct Payments do not constitute a full faith and credit guarantee of the United States of America. Such payments are required to be paid by the United States Treasury under the Recovery Act, but the amount of any Direct Payment is subject to change by the United States Congress. The Authority is obligated to make all payments of principal and interest on the Series 2010A Bonds whether or not it receives the Direct Payments pursuant to the Recovery Act.

Sequestration. Direct Payments are classified under federal budget rules as mandatory spending programs. Since 2013, mandatory spending programs, such as Direct Payments, have been subject to an automatic reduction (sequestration) pursuant to the provisions of the Budget Control Act of 2011 (the “Budget Control Act”). As a result of the sequestration, payments due to the Authority on the Series 2010A Bonds have been reduced in the following amounts: (i) \$248,000 (4.3%) (Fiscal Year 2013), (ii) \$411,000 (7.2%) (Fiscal Year 2014), (iii) \$208,000 (7.3%) (Fiscal Year 2015), (iv) \$597,000 (7.0%) (Fiscal Year 2016), and (v) \$394,000 (6.9%) (Fiscal Year 2017).

According to the Report of the Office of Management and Budget (“OMB”) to the Congress for Fiscal Year 2017, and as confirmed by the Internal Revenue Service, interest subsidy payments to issuers of direct payment bonds processed on or after October 1, 2017, through and including September 30, 2018, will be reduced by 6.6%, unless intervening Congressional action changes the reduction percentage. The largest Direct Payment the Authority currently expects to collect in any future year is \$5,710,149; 6.6% of that amount is approximately \$376,850.

Under the Budget Control Act there may be additional sequester orders for future fiscal years through and including fiscal year 2024. Any such additional sequester order signed by the President may or may not establish a different reduction value. The Authority cannot predict what percentage, if any, cuts may be made to Direct Payments in the future. The projected financial operations of the Authority, as presented herein (see “FINANCIAL OPERATIONS – Projected Financial Operations”), assume that Direct Payments will be 32% of the interest payments on Series 2010A Bonds in each year starting in Fiscal Year 2018. The projected debt service shown in “DEBT SERVICE REQUIREMENTS – Outstanding Senior and Subordinate Debt” reflects the known subsidy reduction of 6.6% for Fiscal Year 2018, and assumes Direct Payments equal to 32% of the interest payments on Series 2010A Bonds in each year starting in Fiscal Year 2019. The Authority is obligated to make all payments of principal of and interest on the Series 2010A Bonds whether or not such Direct Payments are received.

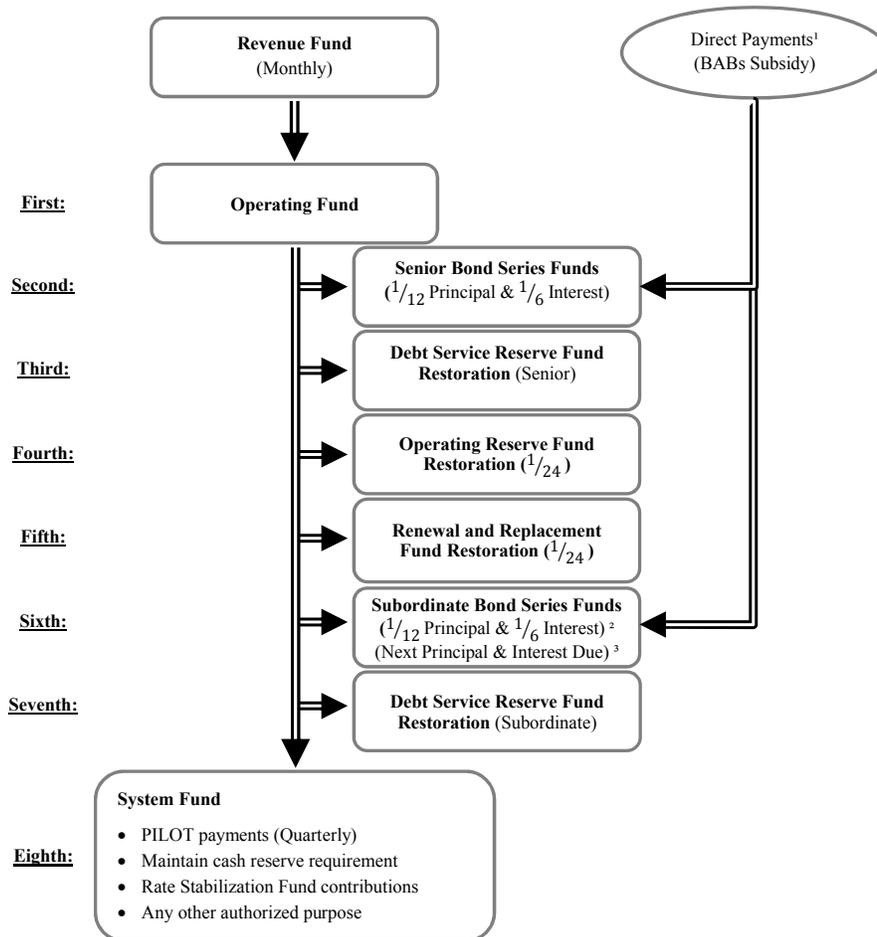
Limited Remedies of Holders of Subordinate Debt

The Indenture prohibits the acceleration of Subordinate Debt if any Senior Debt (including Bonds) is outstanding. The Indenture confers upon the holders of not less than 25% of the aggregate principal amount of Outstanding Bonds (which includes Senior Debt only, not Subordinate Debt) the right to direct the Trustee to protect and enforce their rights by mandamus or other suit, action or proceeding, and confers upon the holders of a majority of the aggregate principal amount of Outstanding Bonds the right to direct the method and place of conducting all proceedings to be taken in connection with the enforcement of the terms and conditions of the Indenture or any other proceedings under the Indenture, in accordance with the provisions of law and the Indenture. The Indenture does not confer those rights upon any specified percentage of the holders of Subordinate Debt.

Flow of Funds

The Authority deposits all revenues, as received, in the Revenue Fund. The chart below depicts a simplified flow of Revenues required by the Indenture after being deposited into the Revenue Fund. This chart is for illustrative purposes only, is in no way comprehensive or definitive, and must be read in conjunction with the entire Official Statement.

Indenture Revenue Flow of Funds



¹ The Twelfth Supplemental Indenture amended the above-described deposit requirements in the Master Indenture by providing that, upon receipt of any Direct Payment, the Authority or the Trustee shall cause it to be deposited (i) in the appropriate subaccounts in the Interest Account in the Bond Fund if such Direct Payment relates to Bonds or Other System Indebtedness, and (ii) in the appropriate subaccount in the Subordinate Interest Account in the Subordinate Bond Fund if such Direct Payment relates to Subordinate Debt, and shall cause it to be applied solely to the purposes to which the Indenture permits funds in such subaccount, account and fund to be applied.

²For fixed rate Subordinate Debt

³For variable rate Subordinate Debt

Pursuant to the Indenture, all Revenues received by the Authority shall be deposited in the Revenue Fund to be held by the Authority; provided, however, that upon an Event of Default, the Authority will transfer all amounts in all Authority-held funds to the Trustee, and the Trustee shall hold such moneys in trust for the benefit of the holders of Indebtedness.

Each month, the Authority shall transfer from the Revenue Fund to the Operating Fund an amount sufficient to pay Operating Expenses during such month. Thereafter, Net Revenues shall be disbursed on the last Business Day of each month in the following order (as noted above, the term “Series of Bonds” refers to Senior Debt):

- i. To the subaccounts in the Interest Account established for each Series of Bonds the amounts, if any, set forth in the applicable Supplemental Indentures with respect to each Series of Bonds, and an amount equal to 1/6 of the interest due on each Series of Bonds to pay interest required to be paid on any interest payment date related to such Series of Bonds.
- ii. On a parity with (i) above, to the subaccounts in the Principal Account established for each Series of Bonds and Sinking Fund Account in the Bond Fund the amounts, if any, set forth in the applicable Supplemental Indentures with respect to each Series of Bonds and an amount equal to 1/12 of the principal due on each Series of Bonds.
- iii. To the applicable Account in the Debt Service Reserve Fund with respect to each Series of Bonds the amounts, if any, necessary to restore the amount on deposit therein to the related Series Debt Service Reserve Requirement. For a description of the requirements for and the uses of the Debt Service Reserve Fund, see “Certain Reserve Funds – Debt Service Reserve Fund and Subordinate Debt Service Reserve Fund” below.
- iv. To the Operating Reserve Fund the amounts, if any, necessary to restore the amounts on deposit therein to the Operating Reserve Requirement, which requirement shall be funded within 24 months of any withdrawal and replenished from time to time by depositing 1/24 of the Operating Reserve Requirement on the last Business Day of each month after such withdrawal, if necessary. For a description of the requirements for and the uses of the Operating Reserve Fund, see “Certain Reserve Funds – Operating Reserve Fund” below.
- v. To the Renewal and Replacement Reserve Fund, to the extent that there has been a withdrawal from such fund, the amounts necessary to make the amounts on deposit therein equal to the Renewal and Replacement Reserve Requirement. Such withdrawn amounts shall be funded within 24 months by depositing in such fund 1/24 of the Renewal and Replacement Reserve Requirement on the last Business Day of each month after such withdrawal. For a description of the uses of the Renewal and Replacement Reserve Fund, see “Certain Reserve Funds – Renewal and Replacement Reserve Fund” below.
- vi. To the Subordinate Bond Fund, the amount equal to the deposits to such funds and Accounts required by the related Supplemental Indentures or other documents evidencing such debt. Generally, an amount equal to 1/6 of the interest and 1/12 of the principal next due on any fixed rate Subordinate Debt shall be deposited each month, and generally an amount equal to interest and principal next due on any variable rate Subordinate Debt shall be deposited prior to any date on which such interest and principal is due.
- vii. To the applicable Account, if any, in the Subordinate Debt Service Reserve Fund with respect to each Subordinate Debt issue the amounts, if any, necessary to restore the amount on deposit therein to the related Subordinate Debt Reserve Requirement or to reimburse the provider of any Qualified Reserve Credit Facility for amounts drawn thereunder and to pay related costs.
- viii. To the System Fund, any moneys remaining in the Revenue Fund, after all deposits and transfers required by (i) through (vii) above have been made. Moneys in the System Fund may be used for any authorized purpose. On the following dates, moneys on deposit in the System Fund shall be used to make the following payments:
 - (a) on each May 15, and quarterly thereafter, to the District to make the payment in lieu of taxes (the “PILOT”) required by the District Memorandum of Understanding relating to the PILOT dated January 29, 1998, as amended;

- (b) on each September 1, an amount retained by the Authority in the System Fund necessary to satisfy the Cash Reserve Requirement (\$125.5 million as of the date of this Official Statement); and
- (c) on each September 30, to the Rate Stabilization Fund, the amount that the Board determines based on an analysis of the Authority's financial performance conducted by the CEO and General Manager (the "CEO") and reported to the Board for approval not later than its regularly scheduled meeting in July of each Fiscal Year. For a description of the uses of the Rate Stabilization Fund, see "Certain Reserve Funds – Rate Stabilization Fund" below.

The Twelfth Supplemental Indenture amended the above-described deposit requirements in the Master Indenture by providing that, upon receipt of any Direct Payment, the Authority or the Trustee shall cause it to be deposited (i) in the appropriate subaccount in the Interest Account in the Bond Fund if such Direct Payment relates to Bonds or Other System Indebtedness, and (ii) in the appropriate subaccount in the Subordinate Interest Account in the Subordinate Bond Fund if such Direct Payment relates to Subordinate Debt, and shall cause it to be applied solely to the purposes to which the Indenture permits funds in such subaccount, account and fund to be applied. See "– Pledge of Master Indenture – Direct Payments – Sequestration" above.

For a more extensive discussion of the terms and provisions of the Indenture including the security for the Series 2018A/B Bonds, the funds and Accounts established by the Indenture and the purposes to which moneys in such funds and Accounts may be applied, see APPENDIX C – "Glossary and Summary of the Indenture."

Certain Reserve Funds

Debt Service Reserve Fund and Subordinate Debt Service Reserve Fund. The Indenture creates a Debt Service Reserve Fund and a Subordinate Debt Service Reserve Fund, each to be held by the Trustee. The Indenture permits, but does not require, the Authority to specify a debt service reserve requirement for each issuance of Senior Debt or Subordinate Debt and to make provision for the means by which any such reserve requirements will be met. The Authority will not specify a debt service reserve requirement for the Series 2018A/B Bonds.

Operating Reserve Fund. The Master Indenture creates an Operating Reserve Fund in which the Authority must maintain a balance equal to at least 60 days of operating and maintenance expenses of the prior year. Money in the Operating Reserve Fund shall be used to pay, to the extent necessary, Operating Expenses of the Authority. In addition, to the extent that the amount on deposit in the Bond Fund is insufficient to make the required interest and principal payments on Senior Debt, money in the Operating Reserve Fund shall be used prior to any withdrawal from the Debt Service Reserve Fund to satisfy any such deficiencies. The Board has adopted a policy of funding operating reserves to a level in excess of that required by the Master Indenture. See "– Discretionary Reserves" below. As of September 30, 2017, the balance in the Operating Reserve Fund was \$49.8 million, which represents 60 days of operating and maintenance expenses.

Renewal and Replacement Reserve Fund. The Master Indenture creates a Renewal and Replacement Reserve Fund to be held by the Authority to provide funding for unforeseen or emergency needs. Money in the Renewal and Replacement Reserve Fund may be used to pay for any capital expenditures related to the System. In addition, to the extent that the amounts on deposit in the Bond Fund and the Operating Reserve Fund are insufficient to make the required interest and principal payments on Senior Debt, money in the Renewal and Replacement Reserve Fund shall be used prior to any withdrawal from the Debt Service Reserve Fund to satisfy any such deficiencies. The Master Indenture allows this requirement to be met if an amount equal to 2% of original plant in service cost, or some other amount as approved by the Board, is held by the Authority. The Board has adopted a policy requiring the Authority to maintain a balance of at least \$35.0 million in the Renewal and Replacement Reserve Fund. As of September 30, 2017, the balance in the Renewal and Replacement Reserve Fund was \$35.0 million.

Rate Stabilization Fund. The Master Indenture creates a Rate Stabilization Fund to be held by the Authority, the moneys in which may be transferred by the Authority to the Revenue Fund at any time. The Board has adopted a policy allowing moneys to be transferred to the Rate Stabilization Fund from the System Fund annually based on an analysis of the Authority's financial performance conducted by the CEO and reported to the Board for approval during the fourth quarter of each Fiscal Year, and at other times at the direction of the Board. The Authority withdrew \$7.5 million from the Rate Stabilization Fund in 2015. In Fiscal Years 2015, 2016 and 2017, the Authority made deposits into the Rate Stabilization Fund of \$17.5 million, \$19.0 million and \$10.0 million, respectively. The Authority may withdraw additional funds in future years to reduce rate increases that might otherwise be required; however, the Authority does not currently have plans to withdraw additional funds in Fiscal Years 2018-2022. See "FINANCIAL OPERATIONS – Reserve Funds – Rate Stabilization Fund." The Rate Stabilization Fund has no minimum balance requirements. As of September 30,

2017, the balance in the Rate Stabilization Fund was \$61.45 million. See also “FINANCIAL OPERATIONS – Projected Financial Operations.”

Discretionary Reserves. The Board has adopted a policy of funding operating reserves at a level in excess of the 60-day operating and maintenance reserve required by the Master Indenture. To comply with the Board’s policy, the Authority is required to have cash reserves equal to 120 days of budgeted operating and maintenance costs calculated on an average daily balance basis, with the objective of maintaining at least \$125.5 million in operating reserves. For purposes of calculating this requirement, the balances in the Operating Reserve Fund and the Renewal and Replacement Reserve Fund are included. For Fiscal Year 2018, the operating reserves requirement is \$125.5 million. As of September 30, 2017, the Authority had an operating reserve cash balance of \$147.2 million which exceeded the Board’s policy requirement.

Pursuant to Board policy, the Authority’s reserves are independently evaluated every five years. In February 2018, Amawalk independently evaluated the adequacy of the Authority’s reserves and concluded that current Board policy provides for an appropriate level of reserves. Amawalk recommended that the Board may wish to amend its current policy to require the higher of \$140.0 million or 140 days of operating reserves to be consistent with the projected reserve balances in the Authority’s Financial Plan. As of February 28, 2018, there were no material differences in the balances shown above for the preceding reserve funds and the Rate Stabilization Fund.

Rate Covenant

Master Indenture Covenant. The Master Indenture includes a rate covenant (the “Rate Covenant”) as described below. Rates, fees and charges are established by the Authority and are not subject to regulatory approval, nor are they subject to other regulations under current law. (For a description of the pledge of the District not to limit or alter rights vested in the Authority to fulfill agreements made with holders of its bonds, see “COVENANT BY THE DISTRICT OF COLUMBIA.”) The Authority has never failed to satisfy the Rate Covenant, which provides that the Authority shall fix, charge, revise and collect rates, fees and other charges for the use of and the services furnished by the System sufficient in each Fiscal Year so that:

- i. Revenues collected by the Authority in such Fiscal Year will be sufficient to pay at least: (a) the actual Operating Expenses; (b) Annual Debt Service on Senior Debt; (c) any amount necessary to be deposited in any Account in the Debt Service Reserve Fund relating to a Series of Bonds to restore the amount on deposit therein to the Series Debt Service Reserve Requirement; (d) the amount required to pay Annual Debt Service on the Subordinate Debt (including any reserves in connection therewith and the restoration thereof); (e) any amount necessary to be deposited in the Operating Reserve Fund and the Renewal and Replacement Reserve Fund to maintain the required balances therein; and (f) any amount necessary to make any PILOT payments in such Fiscal Year; and
- ii. Net Revenues shall be sufficient in each Fiscal Year to be at least equal to the sum of (a) an amount equal to one hundred and twenty percent (120%) of the Annual Debt Service on Senior Debt; and (b) one hundred percent (100%) of the Annual Debt Service on Subordinate Debt.

If at the end of any Fiscal Year the Authority is not in compliance with the Rate Covenant, or if the Authority fails for three consecutive months to make the deposits required under the Indenture to the Interest Account and the Principal Account (or the Sinking Fund Account, as applicable) or there is a deficiency in a Series Debt Service Reserve Account for longer than three consecutive months, the Authority shall immediately request a Qualified Independent Consultant to submit a written report and recommendations with respect to increases in the Authority’s rates, fees and other charges and improvements in the operations of and the services rendered by the System and the Authority’s accounting and billing procedures necessary to bring the Authority into compliance with the Rate Covenant. The report and recommendations shall be filed with the Trustee and the Authority within 120 days from the date of discovery of noncompliance with the Rate Covenant. The Authority shall promptly revise its rates, fees and charges, and alter its operations and services to conform with the report and recommendations of the Qualified Independent Consultant to the extent permitted by law.

Deposit and Crediting of Direct Payments. The Twelfth Supplemental Indenture amended the Master Indenture to provide that, for purposes of determining the Authority’s compliance with the Rate Covenant, the amount of any Direct Payment received by the Authority or the Trustee in any Fiscal Year shall be credited against (i) Annual Debt Service on Senior Debt in such Fiscal Year if such Direct Payment related to Senior Debt or (ii) Annual Debt Service on Subordinate Debt in such Fiscal Year if such Direct Payment related to Subordinate Debt. This amendment became effective upon the execution of the Twelfth Supplemental Indenture. See “SECURITY FOR THE SERIES 2018A/B BONDS – Direct Payment Bonds – Sequestration.”

Additional Board Policy. In addition to the Rate Covenant described above, in 1997, the Board adopted a financial policy of fixing, charging, revising and collecting rates, fees and other charges for the use of and the services furnished by the System sufficient in each Fiscal Year so that Net Revenues shall be at least equal to one hundred and forty percent (140%) of the Annual Debt Service on Senior Debt in each such Fiscal Year. See “FINANCIAL OPERATIONS – Financial Policies.” To date, the Authority consistently has met or exceeded this policy goal. There can be no assurance, however, that the Board will not change this financial policy or that the Authority will continue to meet this policy goal.

Additional Senior Debt

The Indenture provides that the Authority may issue additional Senior Debt and Other System Indebtedness, including Bonds, to pay Costs of the System only upon satisfaction of certain requirements, including, among other things, receipt by the Trustee of the following:

- iii. evidence that upon issuance of such Bonds, each Series Debt Service Reserve Account within the Debt Service Reserve Fund will contain the applicable Series Debt Service Reserve Requirement; and
- iv. either: (a) a certificate of the Authorized Representative of the Authority stating that, based on the Authority’s financial records, the Authority would have been able to meet the Rate Covenant taking into account (1) the maximum Annual Debt Service on the proposed additional Series of Bonds, and (2) the rates, fees and other charges which are in effect at the time of the delivery of the proposed additional Series of Bonds; or (b) a written statement of a Qualified Independent Consultant, which projects Operating Expenses, Revenues and Net Revenues for five full Fiscal Years following the date of issuance of such proposed additional Series of Bonds, which projection does not include the actual debt service for any Indebtedness to be refunded, and which demonstrates that, on the basis of such projection, the Authority can comply with the Rate Covenant.

If any Bonds are issued to refund any Indebtedness, the Trustee must receive the following:

- v. evidence that the Authority has made provision as required by the Indenture for the payment or redemption of all Indebtedness to be refunded; and
- vi. either: (a) a written determination by the Authorized Representative of the Authority that the Annual Debt Service requirements for each Fiscal Year in which there will be Outstanding Indebtedness not to be refunded will not increase more than 5% over what the Annual Debt Service requirements for such Fiscal Year would have been on all Senior Debt immediately prior to the issuance of such Bonds, and that the final maturity of Indebtedness being refunded has not been extended; or (b) a certificate of the Authority stating that, based on the Authority’s financial records, the Authority would have been able to meet the Rate Covenant, taking into account (1) the maximum Annual Debt Service on the proposed additional Series of Bonds, and (2) the rates, fees and other charges which are in effect at the time of the delivery of the proposed additional Series of Bonds; or (c) a written statement of a Qualified Independent Consultant, that projects Operating Expenses, Revenues and Net Revenues for five full Fiscal Years following the date of issuance of such proposed additional Series of Bonds, which projection does not include the actual debt service for any Indebtedness to be refunded, and that demonstrates that, on the basis of such projection, the Authority can comply with the Rate Covenant.

The Authority may incur or refinance Other System Indebtedness provided that: (i) the documents relating to the Other System Indebtedness acknowledge that such debt constitutes Other System Indebtedness under the Master Indenture and is subject to the applicable terms and conditions thereof, and specify the amounts and due dates of Annual Debt Service with respect to the Other System Indebtedness; (ii) the conditions of the Master Indenture regarding the issuance of Bonds have been met as if the Other System Indebtedness was an additional Series of Bonds; (iii) the Trustee receives written notice of the issuance of the Other System Indebtedness and the material terms and conditions thereof, and the Trustee shall register the holder as owner thereof as such on its books and records; and (iv) the Trustee receives an Opinion of Counsel that the documents creating the Other System Indebtedness have been duly authorized, executed and delivered on behalf of the Authority and constitute valid, binding and enforceable obligations. In connection with the incurrence of any Other System Indebtedness, the Trustee shall enter into an intercreditor arrangement with the holder of such Other System Indebtedness, the terms of which shall be determined at the time of incurrence of such Other System Indebtedness.

The Master Indenture was amended with bondholder consent to include provisions regarding the crediting of Direct Payments for the purposes of computing Annual Debt Service on any Direct Payment BABs or Other System Indebtedness as to which Direct Payments are expected to be made in connection with any proposed issuance of additional

Bonds or Other System Indebtedness. See “SECURITY FOR THE SERIES 2018A/B BONDS – Direct Payments – Sequestration.”

Additional Subordinate Debt

Under the Indenture, the Authority may at any time issue Subordinate Debt and pledge Net Revenues thereto so long as rates, fees and charges are in effect or scheduled to go into effect to meet the Rate Covenant immediately after the issuance of such Subordinate Debt. The Authority has modified the Master Indenture to include provisions regarding the crediting of Direct Payments for the purposes of computing Annual Debt Service on any Direct Payment BABs or other Indebtedness as to which Direct Payments are expected to be made in connection with any proposed issuance of additional Bonds, Subordinate Debt or Other System Indebtedness. See “SECURITY FOR THE SERIES 2018A/B BONDS – Direct Payments – Sequestration.”

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DEBT SERVICE REQUIREMENTS

Outstanding Senior and Subordinate Debt

The following tables set forth the annual principal and interest requirements for (i) Outstanding Senior Debt, (ii) Outstanding Subordinate Debt and (iii) the Series 2018A/B Bonds, as well as annual and aggregate totals.

Fiscal Year Ending September 30 ¹	Outstanding Senior Debt	Series 2018A/B Bonds			Total Senior Debt	Outstanding Subordinate Debt 1,2,3,4,5,6,7	Direct payments Relating to Series 2010A Bonds	Total Subordinate Debt ¹⁰	Total Senior and Subordinate Debt
		Principal	Interest	Total					
2018 ¹¹	\$42,279,388			\$42,279,388	\$68,897,186	\$(2,666,639)	\$66,230,547	\$108,509,934	
2019	57,284,200			57,284,200	128,380,102	(5,220,707)	123,159,394	180,443,594	
2020	58,061,350			58,061,350	132,237,607	(5,220,707)	127,016,899	185,078,249	
2021	58,061,975			58,061,975	137,455,339	(5,161,933)	132,293,406	190,355,381	
2022	58,059,850			58,059,850	137,361,779	(5,099,176)	132,262,603	190,322,453	
2023	58,066,700			58,066,700	137,294,363	(5,033,083)	132,261,280	190,327,980	
2024	42,808,475			42,808,475	152,473,015	(4,963,430)	147,509,585	190,318,060	
2025	42,810,950			42,810,950	152,372,953	(4,878,673)	147,494,280	190,305,230	
2026	42,806,950			42,806,950	152,287,062	(4,791,835)	147,495,227	190,302,177	
2027	42,810,150			42,810,150	152,182,476	(4,702,827)	147,479,649	190,289,799	
2028	42,808,450			42,808,450	152,094,212	(4,611,477)	147,482,735	190,291,185	
2029	34,695,250			34,695,250	159,635,846	(4,426,435)	155,209,411	189,904,661	
2030	31,829,750			31,829,750	159,420,369	(4,232,061)	155,188,308	187,018,058	
2031	31,521,500			31,521,500	159,077,247	(4,034,152)	155,043,095	186,564,595	
2032	35,039,000			35,039,000	158,989,718	(3,830,589)	155,159,128	190,198,128	
2033	34,696,250			34,696,250	158,757,179	(3,618,456)	155,138,723	189,834,973	
2034	34,697,000			34,697,000	160,239,576	(3,399,962)	156,839,615	191,536,615	
2035	34,694,000			34,694,000	160,000,175	(3,174,929)	156,825,246	191,519,246	
2036	34,696,500			34,696,500	160,035,908	(2,944,242)	157,091,665	191,788,165	
2037	37,198,250			37,198,250	147,913,024	(2,705,427)	145,207,598	182,405,848	
2038	34,248,250			34,248,250	144,585,999	(2,459,985)	142,126,014	176,374,264	
2039	32,936,750			32,936,750	144,019,753	(2,207,298)	141,812,455	174,749,205	
2040	32,932,750			32,932,750	147,171,538	(1,948,692)	145,222,846	178,155,596	
2041	36,993,000			36,993,000	138,698,120	(971,165)	137,726,955	174,719,955	
2042	36,991,200			36,991,200	140,396,239	(741,097)	139,655,143	176,646,343	
2043	36,988,200			36,988,200	146,508,334	(502,723)	146,005,611	182,993,811	
2044	36,993,200			36,993,200	146,167,265	(255,779)	145,911,486	182,904,686	
2045	34,545,000			34,545,000	74,092,304	-	74,092,304	108,637,304	
2046	34,540,800			34,540,800	49,160,950	-	49,160,950	83,701,750	
2047	34,540,800			34,540,800	42,705,650	-	42,705,650	77,246,450	
2048	30,499,000			30,499,000	40,075,313	-	40,075,313	70,574,313	
2049	30,499,250			30,499,250	11,875,123	-	11,875,123	42,374,373	
2050	30,502,750			30,502,750	11,873,750	-	11,873,750	42,376,500	
2051	30,498,000			30,498,000	-	-	-	30,498,000	
2052	30,499,000			30,499,000	-	-	-	30,499,000	
2053 - 2104 ⁸	16,849,000			16,849,000	-	-	-	16,849,000	
2105	44,918,000			44,918,000	-	-	-	44,918,000	
2106	44,917,758			44,917,758	-	-	-	44,917,758	
2107	44,918,480			44,918,480	-	-	-	44,918,480	
2108	44,917,986			44,917,986	-	-	-	44,917,986	
2109	44,918,053			44,918,053	-	-	-	44,918,053	
2110	44,918,215			44,918,215	-	-	-	44,918,215	
2111	44,917,860			44,917,860	-	-	-	44,917,860	
2112	44,918,233			44,918,233	-	-	-	44,918,233	
2113	44,918,340			44,918,340	-	-	-	44,918,340	
2114	44,918,040			44,918,040	-	-	-	44,918,040	
Total⁹	\$2,684,462,852			\$2,684,462,852	\$4,164,435,474	\$(93,803,480)	\$4,070,631,994	\$6,755,094,846	

* Certain totals may not add due to rounding.

¹ Amounts due October 1 are shown as debt service for the preceding Fiscal Year ending September 30 (since the amounts actually are required to be set aside in such Fiscal Year). For example, debt service payments due October 1, 2018, are shown in the Fiscal Year ending September 30, 2018.

² Outstanding Subordinate Debt is calculated excluding the impact of the Direct Payments related to the Series 2010A Bonds. See “SECURITY FOR THE SERIES 2018A/B BONDS – Direct Payments.”

³ Interest on Series 2016B Bonds (Environmental Impact Bonds) is calculated through the mandatory tender date of April 1, 2021 at the fixed term rate of 3.43%, and at an assumed rate of 3.25% thereafter through final maturity.

⁴ The Authority currently has \$114.2 million of Commercial Paper outstanding, of which \$85 million is expected to be repaid with the proceeds of the Series 2018B Bonds and therefore is not reflected in this table. A total of \$29.2 million is assumed outstanding after the issuance of the Series 2018A/B Bonds and the debt service is based on a hypothetical amortization of the full outstanding amount at 20 years with an assumed interest rate of 3.25%.

⁵ Includes the Authority's Debt Service requirements for Government Notes associated with Jennings Randolph.

⁶ Series 2014 B Bonds are weekly-reset variable rate bonds payable through a Liquidity Facility provided by TD Bank, N.A., which expires on July 23, 2017. For calculation of the projected debt service requirement, the all-inclusive rate was assumed to be 1.50% in 2018, 2.00% in 2019 and 3.25% thereafter. The debt is assumed to amortize in FY 2041 - FY 2050.

⁷ The Authority currently has \$50 million of Extendable Maturity Commercial Paper outstanding. Debt service is based on a hypothetical amortization of the full outstanding amount at 30 years with an assumed interest rate of 3.25%.

⁸ Amounts shown for FY 2053 - FY 2104 are annual totals for each Fiscal Year and do not represent the cumulative total.

⁹ Amounts represent cumulative totals for all Fiscal Years shown. Totals from consolidated rows are included.

¹⁰ Total Subordinate Debt is calculated including the impact of the Direct Payments related to the Series 2010A Bonds. With respect to the effect of sequestration on the receipt by the Authority of Direct Payments on its Series 2010A Bonds, a reduction of 6.6% was applied for 2018. Thereafter, the subsidy amount is assumed to be 32% of the interest payments. See “SECURITY FOR THE SERIES 2018A/B BONDS – Amendment of the Master Indenture” and for a discussion of the effect of sequestration on the Direct Payments to be received by the Authority, see “SECURITY FOR THE SERIES 2018A/B BONDS – Direct Payments - Sequestration.”

List of Outstanding Indebtedness

The Authority's indebtedness as of the date of this Official Statement is set forth in Table 1 below. For a summary of the annual debt service payments for the Authority's existing indebtedness, see "FINANCIAL OPERATIONS – Debt Service."

Table 1. Outstanding Indebtedness
(\$ in thousands)

	Original Principal Amount	Interest Rates	Final Maturity	Amount Outstanding ¹
Senior Debt				
Series 1998 Bonds	\$ 266,120	5.50%	2028	\$141,855
Series 2009A Bonds	300,000	5.00	2039	4,225
Series 2014A Bonds	350,000	4.814	2114	350,000
Series 2017A Bonds	100,000	4.00-5.00	2052	100,000
Series 2017B Bonds	200,000	4.00-5.00	2044	200,000
Total Senior Debt				\$796,080
Subordinate Debt				
Series 2008A Bonds	\$ 290,375	5.00%	2018	\$ 6,865
Series 2010A Bonds	300,000	4.07-5.52 ²	2044	300,000
Series 2012A Bonds	177,430	4.00-5.00	2037	153,600
Series 2012C Bonds	163,215	4.00-5.00	2033	163,215
Series 2013A Bonds	300,000	4.75-5.00	2048	300,000
Series 2014B Bonds	100,000	VR ³	2050	100,000
Series 2014C Bonds	377,700	3.00-5.00	2044	377,110
Series 2015A Bonds	100,000	2.00-5.00	2045	100,000
Series 2015B Bonds	250,000	5.00-5.25	2044	250,000
Series 2016A Bonds	389,110	5.00-5.25	2039	389,110
Series 2016B Bonds	25,000	3.43 ⁴	2046	25,000
Government Notes				
Jennings Randolph Reservoir Debt	\$ 18,269	3.25%	2041	\$12,453
Commercial Paper Notes⁵				
Series B CP Notes	\$ 85,000	VR	2020	\$85,000
Series C CP Notes (taxable)	\$ 29,200 ⁶	VR	2020 ⁷	\$29,200
Extendable Municipal Commercial Paper Notes				
Series A EMCP Notes	\$ 50,000 ⁸	VR	N/A ⁹	\$50,000
Total Subordinate Debt				\$2,341,553
Total				\$3,137,633

¹ Amounts outstanding do not reflect any amortization of accrued principal.

² Taking into account the Direct Payment subsidy, the Series 2010A Bonds had an all-in-true interest cost of 3.6%. With respect to the effect of sequestration on the receipt by the Authority of Direct Payments on its Series 2010A Bonds, see "SECURITY FOR THE SERIES 2018A/B BONDS – Direct Payments – Sequestration."

³ The Series 2014B Bonds are weekly-reset variable rate bonds supported by a Liquidity Facility provided by TD Bank, N.A.

⁴ Interest on Series 2016B Bonds (Environmental Impact Bonds) is calculated through the mandatory tender date of April 1, 2021 at the fixed term rate of 3.43%, and at an assumed rate of 3.25% thereafter through final maturity.

⁵ Maximum amount authorized for the CP Notes (Series B CP Notes and Series C CP Notes) is \$150 million; the CP Notes are supported by a Letter of Credit provided by Landesbank Hesse-Thüringen Girozentrale; the Series A CP Notes are not currently authorized for issuance. The outstanding \$85 million of the Series B CP Notes are expected to be repaid with the Series 2018B Bonds.

⁶ Maximum amount authorized to be outstanding at any one time for the Series C CP Notes is \$50 million.

⁷ Final maturity of the CP Notes reflects expiration of current credit facility.

⁸ Maximum amount authorized to be outstanding at any one time for the Series A EMCP Notes is \$100 million.

⁹ The Series A EMCP notes are placed for an original maturity date not to exceed 90 days. At their original maturity date, the EMCP notes may be repaid, remarketed and resold as new Series A EMCP notes, or extended at the option of the Authority to an extended maturity date not greater than 270 days from their initial issuance. Should the Series A EMCP Notes be remarketed and resold, upon such resale the Series A EMCP Notes will mature on such date or dates as provided in the terms of the remarketing and resale (up to a maximum original maturity date of 90 days and a maximum extended maturity date of 270 days).

Source: Authority records.

Outstanding Senior Debt

As indicated above, as of the date of this Official Statement, the Authority had Senior Debt outstanding in the aggregate principal amount of \$796,080,000 consisting of its Public Utility Senior Lien Revenue Bonds, Series 1998 (the “Series 1998 Senior Bonds”), its Public Utility Senior Lien Revenue Bonds, Series 2009A (the “Series 2009A Senior Bonds”), its Public Utility Senior Lien Revenue Bonds, Series 2014A (Federally Taxable) (Green Bonds) (the “Series 2014A Senior Bonds”), its Public Utility Senior Lien Revenue Bonds, Series 2017A (Green Bonds) (the “Series 2017A Senior Bonds”) and its Public Utility Senior Lien Revenue Bonds, Series 2017B (the “Series 2017B Senior Bonds”). The Authority expects to issue additional Senior Debt in the future to finance capital improvements to the System. See “CAPITAL IMPROVEMENT PROGRAM.” Upon the issuance of the Series 2018A/B Bonds, the amount of Outstanding Senior Debt will be \$1,096,080,000.*

Outstanding Subordinate Debt

The Subordinate Debt summarized in Table 1 consists of the following categories of outstanding debt: (i) Subordinate bonds (including Environmental Impact Bonds); (ii) Government Notes; (iii) Commercial Paper Notes; and (iv) Extendable Municipal Commercial Paper Notes (the “EMCP Notes”). As of the date of this Official Statement, the Authority had Subordinate Debt outstanding in the aggregate principal amount of \$2,341,553,443. Upon the issuance of the Series 2018A/B Bonds, the amount of Outstanding Subordinate Debt will be \$2,256,553,443, reflecting the planned repayment of the Series B CP Notes with the proceeds of the Series 2018B Bonds.

Subordinate Bonds. As of the date of this Official Statement, \$2,139,100,000 of Subordinate bonds was outstanding, consisting of its Public Utility Subordinate Lien Revenue Bonds of various series listed in Table 1. The Authority expects to issue additional Subordinate bonds in the future to finance capital improvements to the System. See “CAPITAL IMPROVEMENT PROGRAM.”

Environmental Impact Bonds. On September 29, 2016, the Authority issued \$25,000,000 of tax-exempt Public Utility Subordinate Lien Revenue Bonds, Series 2016B (Environmental Impact Bonds) (the “Series 2016B Bonds”). The Series 2016B Bonds are multimodal variable rate bonds, initially issued bearing a 3.43% fixed rate through the mandatory tender date, April 1, 2021. The Series 2016B Bonds are the Authority’s first environmental impact bonds to finance green infrastructure. The Series 2016B Bonds are designated as environmental impact bonds and, as such, include provisions for the possibility of an outcome payment by the Authority to the original purchasers of the Series 2016B Bonds, and for the possibility of a risk share payment by such original purchasers to the Authority depending upon the results achieved by the green infrastructure financed with the proceeds of the Series 2016B Bonds. The potential obligation of the Authority to pay the outcome payment is an unsecured obligation. The net proceeds of the issuance are being used for construction of green infrastructure for the Rock Creek Project A (RC-A). The green infrastructure is 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 that pollute the District’s waterways. As of the date of this Official Statement, \$25 million of the Series 2016B Bonds was outstanding.

Government Notes. The Authority is responsible for debt service on notes payable to the federal government for the construction of the Jennings Randolph Reservoir. As of the date of this Official Statement, \$12,453,443 of Government Notes was outstanding. Upon the issuance of the Series 2018A/B Bonds, the amount of outstanding Government Notes will remain unchanged.

Commercial Paper Notes. The Authority has established a commercial paper program to provide interim financing for Costs of the System, consisting of three series of notes, each as Subordinate Debt: (i) the tax-exempt Series A CP Notes, which are currently not authorized or enhanced by a liquidity facility (although the Authority has the right to authorize the Series A CP Notes in the future), (ii) the tax-exempt Series B CP Notes in an aggregate principal amount not to exceed \$100 million, and (iii) the taxable Series C CP Notes in an aggregate principal amount not to exceed \$50 million (collectively, the “Commercial Paper Notes”). To provide liquidity and credit support for the Series B CP Notes and the Series C CP Notes, the Authority obtained irrevocable, direct-pay letters of credit (the “Letters of Credit”) issued by Landesbank Hessen-Thüringen Girozentrale, New York Branch (the “Bank”) which expire on May 15, 2020. In connection with the Bank’s issuance of the Letters of Credit, the Authority and the Bank entered into a Reimbursement Agreement for each series of CP Notes, each dated as of May 1, 2015, each as amended (collectively, the “Reimbursement Agreements”) that obligates the Authority to pay Bank Obligations and Reimbursement Obligations (both as defined in the Eleventh Supplemental Indenture relating to the Commercial Paper Notes) and Fee Obligations (as defined in each Reimbursement Agreement) to the Bank. The Bank Obligations, the Reimbursement Obligations and Fee Obligations are Subordinate Debt under the Indenture. As of the date of this Official Statement, \$85 million of the Series B CP Notes and

* Preliminary; subject to change.

\$29.2 million of the Series C CP Notes was outstanding. The Authority expects to repay the outstanding Series B CP Notes with the proceeds of the Series 2018B Bonds.

Extendable Municipal Commercial Paper Notes. The Authority has established an extendable municipal commercial program to provide an additional source of interim financing for Costs of the System. The EMCP Notes are not supported by a credit facility or credit enhancement, but instead are solely supported by a subordinate lien on and pledge of Net Revenues on a parity with the lien on and pledge of Net Revenues that secures Outstanding Subordinate Debt and any other Subordinate Debt that the Authority may issue in the future. The Board has authorized one series of EMCP Notes not to exceed \$100 million outstanding at any one time. As of the date of this Official Statement, \$50 million of the EMCP Notes was outstanding.

Interest Rate Exchange Agreements and Guaranteed Investment Contracts

The Authority has not previously entered into any interest rate exchange agreements or any guaranteed investment contracts.

THE AUTHORITY

General

The Authority is a corporate body and an independent authority created pursuant to the Act that has a separate legal existence within the District government. It was created in 1996 to expedite the repair, replacement, rehabilitation, modernization and extension of existing water distribution and sewage collection, treatment and disposal systems, and the financing, on a self-sustaining basis, of capital and operation expenses relating thereto. The Authority began operations on October 1, 1996, and in June 2010, adopted a new logo and rebranded itself as “DC Water.” Prior to creation of the Authority, the District, through its Department of Public Works, Water and Sewer Utility Administration (“WASUA”), owned, operated and maintained the System. In accordance with the Act, the District authorized the Authority to use all of the property and assets of the System and transferred to the Authority any liabilities of the District that were directly attributable to the System. The District has retained full legal title to, and a complete equitable interest in, the System. In accordance with the Act, however, the System must remain under the control of the Authority for as long as any Authority revenue bonds remain outstanding.

The Authority currently provides retail water and wastewater services to approximately 700,000 residents of the District of Columbia and wholesale wastewater conveyance and treatment to approximately 1.6 million residents of Prince George’s and Montgomery Counties in Maryland and Fairfax and Loudoun Counties in Virginia. In addition, the Authority annually serves approximately 22.0 million visitors to the area and approximately 800,000 workers in the District. In addition to providing services to the White House, the U.S. Congress and the Supreme Court, the Authority also counts among its customers a number of international organizations, including the International Monetary Fund and numerous diplomatic embassies. The Authority also provides services to a number of nationally recognized cultural and educational institutions, including the John F. Kennedy Center for the Performing Arts, and Georgetown, Howard, American, Catholic and George Washington Universities.

The Authority operates the largest advanced wastewater treatment facility in the United States and is in material compliance with all requisite permits. Since its creation as an independent authority of the District, the Authority has become a leader in the water and wastewater industry. The Board has provided stable leadership and a focus on establishing long-term policies and planning, particularly financial stability. Under its leadership, the Authority has adopted and implemented financial and rate-setting policies that have enhanced financial performance. The Authority’s unrestricted cash, cash equivalents and investment balances have increased from \$20.5 million as of September 30, 1997, to \$212.5 million as of September 30, 2017. The Authority’s operating revenues have increased from \$221.5 million in Fiscal Year 1997 to \$643.2 million in Fiscal Year 2017.

The Authority’s accomplishments are consistently recognized by industry associations and publications. The Government Finance Officers Association (“GFOA”) has given the Authority the Certificate of Achievement for Excellence in Financial Reporting Program every year since 1997, and the Distinguished Budget Presentation Award every year since 2001. In 2016, the Authority also received the Excellence in Government Finance Award, and the Excellence in Public Finance Award for its Environmental Impact Bond, both from the GFOA, the Healthiest Employer Award from *SmartCEO*, the Utility of the Future Award from the *National Association of Clean Water Agencies*, and the Non-Traditional Deal of the Year from *The Bond Buyer* for its Environmental Impact Bond.

In 2017, the Authority received (i) the Utility of the Future in Beneficial Biosolids Refuse from *WEF/WERF/NACWA/EPA*, (ii) the Platinum Peak Performance Award for 5 years of 100% compliance with NPDES requirements from the *National Association of Clean Water Agencies*, (iii) the “Unbuilt” Award and Jurors’ Citation in

Conceptual Unbuilt Architecture for the Authority’s Headquarters Building from the *American Institute of Architects, Maryland and Northern Virginia Chapters*, (iv) the Tunneling Achievement Award for the Blue Plains Tunnel from *Breakthroughs in Tunneling*, (v) the Project of the Year, Water/Environment Project of the Year overall and for the Mid-Atlantic for the Blue Plains Tunnel from *Engineering News Record*, (vi) the Sustainability Initiative of the Year for the Anacostia River Tunnel from the *International Tunneling Awards*, (vii) Excellence in Concrete Award for the First Street Tunnel from *National Capital Chapter American Concrete Institute*, and (viii) 100 Best Fleets and Green Fleet Awards from *National Association of Fleet Administrators*, and (ix) Leading Fleet Award from *Government Fleet*.

Purposes and Powers

The Act requires the Authority to establish, fix and revise fees, rates or other charges for the use of, or services furnished, rendered or made available by the System, owned, leased or utilized by the Authority at least in an amount sufficient, together with other revenues available to the Authority, if any, to pay its costs, the principal of and interest on and other requirements pertaining to its bonds, and to make transfers to the District of amounts equal to the debt service payments on the District General Obligation Bonds, which financed WASUA capital projects, as such debt service and transfers become due and payable. All such General Obligation Bonds are now retired.

Pursuant to the Home Rule Act, the Council delegated to the Authority, under the Act, its power to issue revenue bonds, including the Series 2018A/B Bonds, for the purpose of financing “water and sewer facilities” (as such term is defined in the Home Rule Act). Pursuant to the Home Rule Act and the Act, the Authority is required to submit its annual operating budget to the District for its review and recommendations; however, the District has no power to change the annual budget of the Authority. After receiving the Authority’s budget, the District then submits its annual operating budget, of which the Authority’s budget is a part, to the U.S. Congress for approval. See “FINANCIAL OPERATIONS – Annual Budget.”

Board of Directors

The Authority is governed by a Board of Directors consisting of 11 principal and 11 alternate members, each appointed for a staggered four-year term. Six principal members (appointed by the Mayor of the District with the advice and consent of the Council) represent the District and five principal members (appointed by the Mayor on the recommendations of the User Jurisdictions) represent the User Jurisdictions, two each from Prince George’s and Montgomery Counties in Maryland, and one from Fairfax County, Virginia. The powers of the Authority are vested in and exercised by the Board at meetings duly called and held where a quorum of at least six members is present. All Board members participate in decisions directly affecting the management of joint-use facilities which are those facilities used by all three jurisdictions. Only the six members appointed to represent the District participate in those matters that affect District ratepayers and in setting rates, fees and charges for various services that affect only District residents. The Board meets monthly and operates through various standing and ad-hoc committees. The committees include Environmental Quality and Sewerage Services, Water Quality and Water Services, Finance and Budget, Human Resources and Labor Relations, Audit, Strategic Planning, Governance, and District of Columbia Retail Water and Sewer Rates. The current principal members of the Board are listed below.

Principal Board Members	Appointing Authority	Term Start Date*	Term Expiration
Tommy Wells, Chairman	District of Columbia	December 2016	September 2020
Ellen O. Boardman	District of Columbia	July 2013	September 2020
Rachna Butani	District of Columbia	July 2012	September 2018
Timothy L. Firestine	Montgomery County	February 2007	May 2020
David Franco	District of Columbia	May 2017	September 2019
Bradley Frome	Prince George’s County	June 2015	September 2018
Bonnie Kirkland	Montgomery County	March 2018	May 2020
Nicholas A. Majett	Prince George’s County	June 2014	September 2018
James W. Patteson	Fairfax County	September 2015	September 2019
Emile Thompson	District of Columbia	December 2016	September 2020
<i>Vacant</i>	District of Columbia		

* Term start date indicates start of the Board member’s initial term as a principal member.

Source: Authority records.

The following are short biographies of the principal members of the Board.

Tommy Wells (District of Columbia)

Mr. Wells was appointed as principal member of the Board in December 2016 and as chairman of the Board in September 2017. Mr. Wells has served as the Director of the District of Columbia Department of Energy & Environment since January 2015. He is chiefly responsible for protecting the environment and conserving the natural resources of the District of Columbia. Mr. Wells served as the District Council member representing Ward 6 from 2006 until 2014. During his time on Council, he garnered broad support for his efforts to make the District livable and walkable for all. In 2009, Mr. Wells crafted *The Anacostia River Clean Up and Protection Act of 2009*, to implement a \$0.05 fee on disposable bags. This landmark legislation prompted thousands of District residents to curb use of plastic bags and, instead, opt for reusable green alternatives. Mr. Wells earned a Bachelor of Science in Psychology from the University of Alabama, a Juris Doctor from the Columbus School of Law at Catholic University and a Master of Social Work from the University of Minnesota.

Ellen O. Boardman (District of Columbia)

Ms. Boardman was appointed as a principal member of the Board in 2013. Ms. Boardman is a partner at O'Donoghue & O'Donoghue LLP. Prior to joining O'Donoghue & O'Donoghue LLP, in 1986, Ms. Boardman served as an attorney for the National Labor Relations Board. Ms. Boardman is a member of the District of Columbia and Maryland bar associations, numerous federal district and appellate courts, and the U.S. Supreme Court. Ms. Boardman is a fellow of the College of Labor and Employment Lawyers, and is listed as a Washington, D.C. Super Lawyer. Ms. Boardman holds a Bachelor of Arts in History from Catholic University and a Juris Doctor from the University Columbus School of Law.

Rachna Butani (District of Columbia)

Ms. Butani was appointed as a principal member to the Board in July 2012. Ms. Butani serves as Director at HRGM Corporation. Ms. Butani has been with HRGM since 2001. Previously, Ms. Butani served as an Associate for Wachovia Securities, and as a consultant for Deloitte & Touche, LLP. Ms. Butani serves as a Board member for the Professional Women in Construction and holds a Virginia Class A Contractor's License. Ms. Butani holds a Bachelor of Science in Business Administration from Georgetown University and a Master in Business Administration from The Wharton School, University of Pennsylvania, with a major in Real Estate and Management.

Timothy L. Firestine (Montgomery County)

Mr. Firestine was appointed as a principal member to the Board in February 2007. Mr. Firestine serves as the Chief Administrative Officer for Montgomery County. Prior to his current position, Mr. Firestine was Chief Financial Officer for Montgomery County and held other positions in public sector financial management. Mr. Firestine holds a Bachelor of Arts in Political Science from Albright College and a Master in Public Administration from the University of Pittsburgh.

David Franco (District of Columbia)

Mr. Franco was appointed as a principal member to the Board in May 2017. Mr. Franco is principal of Level 2 Development. Mr. Franco co-founded a number of successful businesses in the District, including Discount Mart, Trumpets Restaurants and Tracks Nightclub. Mr. Franco also founded Universal Gear, a men's retail clothing store chain anchored in the District with stores in New York, Chicago, Atlanta and Rehoboth Beach, Delaware, and online presence. Mr. Franco is committed to helping the residents of the District and has led efforts in the past to address community needs, including preserving the 48-unit Cresthill Apartments, which created home ownership opportunities along the 14th Street corridor for low to medium income residents. Mr. Franco attended the University of Maryland, College Park.

Bradley Frome (Prince George's County)

Mr. Frome was appointed as principal member to the Board in June 2015. Mr. Frome is currently the Assistant Deputy Chief Administrative Officer for the Economic Development and Public Infrastructure Team within the Administration of County Executive Rushern L. Baker, III. Mr. Frome was appointed to this position in early 2014. Mr. Frome previously served as the Deputy Chief of Staff for County Executive Baker from 2010-2014. Mr. Frome began his work in the public sector for the Maryland House of Delegates as a Legislative Director for four years and served six years as the Chief of Staff to a Council Member for Prince George's County. Mr. Frome graduated *cum laude* from the University of Maryland in College Park with a Bachelor of Science in Government and Politics and attended George Washington University Law School.

Bonnie Kirkland (Montgomery County)

Ms. Kirkland was appointed as a principal member to the Board in March 2018. Ms. Kirkland is the Assistant Chief Administrative Officer for Montgomery County. She has over 30 years of legislative and policy

experience, including 10 years of experience with the Office of the Attorney General and also serving as Chief Legislative Officer for two Maryland Governors. In addition, Ms. Kirkland served as Special Secretary for the Office of Children, Youth and Families, where she managed and directed interagency efforts and monitored services for children with special needs and community partnerships throughout Maryland. She also served as Staff Director for the Aging Subcommittee of the U.S. Senate Health, Education, Labor and Pensions Committee and as Deputy Director for Committee Staffing and Legal Review for the Department of Legislative Services in Annapolis. Since September 2011, Ms. Kirkland has been teaching law students about legislation, legislative process and statutory interpretation as an Adjunct Professor at the University of Baltimore School of Law. Ms. Kirkland holds a Bachelor of Arts in Spanish and Portuguese Language and Literature from the University of Maryland, College Park and a Juris Doctor from the University of Maryland. She is a member of the Maryland Bar.

Nicholas A. Majett (Prince George's County)

Mr. Majett was appointed as a principal member of the Board in June 2014. Mr. Majett serves as the Chief Administrative Officer for Prince George's County. He previously served the District government in several capacities for over 29 years. In 1985, Mr. Majett joined the D.C. Office of the Attorney General and served as an Assistant Attorney General for approximately 19 years. During his tenure as an Assistant Attorney General, Mr. Majett regularly handled regulatory, real estate, tax and civil cases and prosecuted tax and government fraud cases. In 2005, he was elected to the District of Columbia Bar Association's District of Columbia Affairs Section Steering Committee where he currently serves as a member. He is also a member of the Board of Directors for the Washington, DC Economic Partnership, a member of the DC Streetcar Task Force, and former Board Member of Joseph's House, a non-profit organization in the District. Mr. Majett holds a Bachelor of Science and a Juris Doctor from Howard University.

James W. Patteson (Fairfax County)

Mr. Patteson was appointed as a principal member to the Board in September 2015. Mr. Patteson is the Director of the Fairfax County Department of Public Works and Environmental Services ("DPWES"). Prior to serving as director of DPWES, Mr. Patteson served as the Director of DPWES' Land Development Services. Mr. Patteson began his career with Fairfax County in 1985, and has worked in a variety of agencies, including the Department of Housing and Community Development, Office of the County Executive, Facilities Management, and various DPWES departments. Mr. Patteson earned his Bachelor of Science in Civil and Environmental Engineering from Virginia Polytechnic and State University, and a Master in Public Administration from George Mason University.

Emile C. Thompson (District of Columbia)

Mr. Thompson was appointed as a principal member to the Board in December 2016. Mr. Thompson currently serves as an Assistant United States Attorney for the District of Columbia. Prior to that role, Mr. Thompson served as the Chief of Staff to the Deputy Mayor for Public Safety and Justice in the Bowser Administration. In that capacity, Mr. Thompson advised the Deputy Mayor on policies and initiatives throughout the cluster. Mr. Thompson began his legal career as law clerk to the Honorable Herbert B. Dixon, Jr. of the D.C. Superior Court. Mr. Thompson earned a Bachelor of Science in Computer Science from Morehouse College and a Juris Doctorate from the Wake Forest University School of Law.

Organizational Structure

The Authority's day-to-day operations are managed by the CEO/General Manager, who is appointed by the Board. The CEO is supported by the Assistant General Managers for Blue Plains, Consumer Services, and Support Services; the Chief Financial Officer; and the Chief Engineer. The Assistant General Manager for Blue Plains oversees the departments of Wastewater Treatment Services and Maintenance Services. The Assistant General Manager for Consumer Services oversees the departments of Customer Service, Sewer Services, Water Services and Water/Sewer Pump Maintenance. The Assistant General Manager for Support Services oversees the departments of Human Capital Management, Labor Relations, Facilities and Security, Procurement, Fleet Management, and Safety and Occupational Management. The Chief Financial Officer oversees the departments of Finance, Accounting and Budget. The Chief Engineer oversees the Capital Improvement Program as well as the departments of Engineering and Technical Services, Permit Operations, and DC Clean Rivers. Also reporting to the CEO are the offices of the General Counsel, Information Technology and External Affairs.

Senior Management

The Authority has in place a senior and mid-level management team with a broad range of private and public sector utility experience. The following are short biographies of key members of the Authority's senior management.

Henderson J. Brown, IV, Interim CEO and General Manager

Henderson Brown was appointed Interim Chief Executive Officer and General Manager in January 2018. Mr. Brown rejoined the Authority as General Counsel in March 2016, after originally serving the Authority in that role from 1998 until 2004. Following his initial tenure with the Authority, Mr. Brown served as Associate General Counsel for Tyson Foods, Inc. and was the principal and owner of Employment Solutions, LLC, a firm that handles civil rights cases and provides human resources consulting for businesses, federal agencies and local Maryland municipal entities. Mr. Brown holds a Juris Doctorate from the Georgetown University Law Center and a Bachelor's degree from Amherst College in Massachusetts. He is admitted to the bar in Maryland, the District of Columbia, the United States Fourth District Court for Maryland and the United States Courts of Appeals (Fourth and District of Columbia Circuits).

Matthew T. Brown, Chief Financial Officer

Mr. Brown was appointed Chief Financial Officer in 2017. From 2015 until his appointment as Chief Financial Officer, Mr. Brown served as a principal member and chairman of the Board. Mr. Brown previously served as the Director of the Office of Budget and Finance for the District of Columbia. Prior to that position, Mr. Brown served as the Director of the District's Department of Transportation. Mr. Brown began his career with the New York Office of Management and Budget and has held positions in the Milwaukee Metropolitan Sewer District, Public Financial Management and the Metropolitan Washington Transit Authority. Mr. Brown holds a B.A. in Political Science from Texas Wesleyan University, and an M.P.A. in Budget and Public Finance from The George Washington University.

Biju George, Chief Operating Officer

Mr. George was appointed Chief Operating Officer in February 2015. Mr. George is responsible for the performance management of all operations of the Authority. He participates in the implementation of the Authority's strategic plan and assists the General Manager in developing and implementing the Authority's business plans. Mr. George is the 2014 recipient of the Innovator of the Year Award from the U.S. Environmental Protection Agency. Mr. George has a bachelor's degree in mechanical engineering from the PDA College of Engineering at Gulbarga University. He is a licensed professional engineer in Ohio.

Leonard R. Benson, Chief Engineer

Mr. Benson was appointed Chief Engineer in August 2010, after serving as Acting Chief Engineer and Deputy General Manager since May 2008. Mr. Benson transferred to the Authority as Director of Engineering and Technical Services from its predecessor agency when the Authority was created in 1996. Mr. Benson began his career as a Project Manager for the District of Columbia's Department of Highways and Traffic in 1968 and later transferred to the Department of Sanitary Engineering and successor agencies including the Department of Environmental Services and the Department of Public Works. Mr. Benson holds a B.S. in Civil Engineering from the University of Maryland.

Meena Gowda, Acting General Counsel

Ms. Gowda was appointed Acting General Counsel in January 2018, after serving as Deputy General Counsel since January 2017, and Principal Counsel since 2000. Prior to joining the Authority, Ms. Gowda worked in a private law firm and the District of Columbia Office of Corporation Counsel (now known as the District of Columbia Office of the Attorney General). Ms. Gowda has served on several boards and committees in a variety of establishments, including charter schools, county government and social organizations. Ms. Gowda holds a law degree from the University of Bangalore and has attended the Dickinson School of Law. Ms. Gowda is admitted to practice law in the District of Columbia and is member of the District of Columbia Bar.

Mustaafa Dozier, Chief of Staff

Mr. Dozier assumed the position of Chief of Staff in August 2015. Mr. Dozier initially joined the Authority in 2011 as the Labor Relations Manager. Prior to joining the Authority, Mr. Dozier served as the Employment and Labor Relations Advisor to the District's Department of Public Works. Mr. Dozier holds a B.A. from Alabama State University and a J.D. from the Howard University School of Law.

Charles Kiely, Assistant General Manager of Consumer Care & Operations

Mr. Kiely joined the Authority as Director of Customer Services Department in November 2002. Prior to joining the Authority, Mr. Kiely was Executive Vice President of Customer Services for Commonwealth Electric, Cambridge Electric and Commonwealth Gas Companies serving 78 communities in eastern and central Massachusetts. He was later appointed Vice President of Customer Care for NSTAR, formed after the BEC Energy and Commonwealth Energy merger, creating the largest investor-owned gas and electric utility in Massachusetts. Mr. Kiely received a B.S. in Management from the University of Massachusetts and an M.B.A. from Bentley College.

Carlton Ray, Director, DC Clean Rivers Project

Mr. Ray joined the Authority in July 2009, and is responsible for the planning, design, construction and implementation of the DC Clean Rivers Project. The 20-year, \$2.4 billion project is designed to capture nearly all combined sewer overflows to the Potomac and Anacostia Rivers and to the Rock Creek during periods of wet weather through a system of deep underground tunnels. Previously, Mr. Ray managed the capital program for the City of Indianapolis, including successfully developing and managing a similar combined sewer overflow abatement program. Mr. Ray has over 30 years' experience in water and wastewater engineering and holds a B.S. in Civil Engineering from Auburn University.

Aklile Tesfaye, Assistant General Manager, Blue Plains

Mr. Tesfaye joined the Authority in 1994. Mr. Tesfaye formerly served as the Director of Wastewater Treatment Operations for the Authority. Mr. Tesfaye is a licensed engineer with the American Academy of Environmental Engineers, and holds several other professional certifications. Mr. Tesfaye received a B.S. in Civil Engineering from the University of Rourke (India; now known as Indian Institute of Technology), an M.S. in Civil Engineering from Tampore University of Technology (Finland) and an M.S. in Environmental Engineering from the University of Maryland (College Park).

Authority's Relationship to District

Section 424A of the Home Rule Act (D.C. Official Code Section 1-204.25) sets forth the powers and responsibilities of the District's Chief Financial Officer (the "District CFO"). The "District of Columbia Water and Sewer Authority Independence Preservation Act," P.L. 110-273, enacted by the Congress on July 15, 2008, amended the Home Rule Act to make clear that (i) the authority of the District CFO to hire, supervise and remove certain financial management employees does not apply to personnel of the Authority and (ii) the financial management, personnel and procurement functions and responsibilities of the Authority shall be established exclusively pursuant to the rules and regulations adopted by the Board. The Act provides that, except as provided in the Act, the District will not limit or alter rights vested in the Authority to fulfill agreements made with holders of Authority bonds, or in any way impair the rights and remedies of the holders of Authority bonds. See "COVENANT BY THE DISTRICT OF COLUMBIA."

The Authority is presently operating under, and is in compliance with, the following Memoranda of Understanding (each, a "Memorandum of Understanding" or "MOU") with the District.

- A January 29, 1998, Memorandum of Understanding provides that the Authority will pay the District a PILOT for government services it receives from the District (the "1998 PILOT MOU"). This MOU provides that, beginning in Fiscal Year 1999, the annual PILOT will be based on the amount due from the Authority to the District for the previous Fiscal Year plus a percentage increase in an amount equivalent to the Authority's System-wide rate increase for the current Fiscal Year. The District and the Authority amended the 1998 PILOT MOU pursuant to a September 4, 2014 Memorandum of Understanding, as amended and restated on December 15, 2014 (the "2014 PILOT MOU"). According to the 2014 PILOT MOU, the amount of the PILOT payment increases by two percent per annum based on the amount of the prior year's annual PILOT payment. In addition, the Authority will deduct one-fourth of the annual fire protection service fee for services provided by the Authority to the District from the annual PILOT payment. In Fiscal Year 2017, the Authority made a PILOT payment to the District in the amount of \$21,057,041. The 2014 PILOT MOU will remain in effect until September 30, 2024. If the parties have not executed a new amendment to the 1998 PILOT MOU before September 30, 2024, the terms of the 2014 PILOT MOU will remain in force until a new amendment has been executed.
- A September 12, 2003, Memorandum of Understanding provides that the Authority will make quarterly payments to the District for its public right of way occupancy permit fee (the "2003 ROW MOU"). Under the terms of this MOU, the Authority was obligated to pay the District an annual fee of \$5.1 million through September 30, 2013, the expiration date of the MOU. On October 2, 2014, the District and the Authority entered in a new Memorandum of Understanding (the "2014 ROW MOU") that amended the 2003 ROW MOU to establish amount of the ROW Fee payment to the District for Fiscal Years 2015 to 2024 and revise the expiration date to September 30, 2024. As with the 2014 PILOT MOU, if the parties have not executed a new ROW MOU before September 30, 2024, the terms of the 2014 ROW MOU will remain in force until a new amendment has been executed.
- A July 25, 2008, Memorandum of Understanding between the District Department of Energy and Environment ("DOEE") and the Authority establishes the basis for the billing and collection of a stormwater fee by the Authority on behalf of DOEE, and the transfer of those fees on a pass-through basis to DOEE. This MOU extends for one-year periods at the option of the Parties. See "THE

SYSTEM – The Wastewater System – District Stormwater Permit and Management Program” and “CUSTOMER BASE, RATES AND CHARGES – Components of Retail Rates and Charges.”

- A May 3, 2013, Memorandum of Understanding between the District of Columbia Fire and Emergency Medical Services Department (“FEMS”) and the Authority memorializes the ongoing commitment between the two agencies to share information about public fire hydrant inspections and upgrades. The Authority is required to inspect all public fire hydrants once per year in accordance with National Fire Protection Association (“NFPA”) guidelines, and FEMS may, as time permits, also conduct a second inspection of fire hydrants in coordination with the Authority. The Authority is responsible for identifying and installing new hydrants as part of its ongoing capital program, developing manuals and protocols for hydrant inspection and inspection data management, and ensuring that the required preventative maintenance is performed on each hydrant as required by the manufacturer. The Authority is required to flow test all hydrants every six years, and those hydrants that have been upgraded as part of the capital program will be tested upon being placed in service to ensure proper pressure and operation. Furthermore, the Authority has committed to providing water supply personnel on scene to FEMS when requested for two-alarm or greater fires. The Authority annually bills the District to recover the Authority’s costs for these fire hydrant protection services activities.
- A September 11, 2014, Memorandum of Understanding provides the terms by which the District and the Authority will cooperate in the execution of the Northeast Boundary Neighborhood Protective Project (the “2014 Bloomingdale MOU”). This MOU established the value of incremental capital expenditures totaling \$58,579,499.00 incurred by the Authority at the request of the District in order to mitigate overland flooding and sewer backups in the Bloomingdale and LeDroit Park neighborhoods in Northwest Washington, D.C. The District has entered into an agreement with the Authority for the amounts spent pursuant to the 2014 Bloomingdale MOU, to be paid in ten equal annual installments, commencing January 2016, and has made the payments on a timely basis.

Employees and Labor Relations

The total number of authorized positions for the Authority for Fiscal Year 2018 is 1,274. As of September 30, 2017, the Authority had 1,134 full-time equivalent employees, of whom 718 were represented by five unions:

- American Federation of Government Employees (“AFGE”) consisting of Locals 631, 872 and 2553, representing 482 employees;
- American Federation of State, County and Municipal Employees (“AFSCME”), Local 2091, representing 221 employees; and,
- National Association of Government Employees (“NAGE”), representing 15 employees.

The Authority and the unions operate under a single Master Agreement on Compensation which was signed on July 6, 2017 and is set to expire on September 30, 2019.

There are five separate working conditions agreements with the unions. The working condition agreement with NAGE will expire on September 30, 2019. The Authority is negotiating successor agreements on working conditions with the other four unions.

The percentage of current employees eligible to retire within the next ten years (based on age and years of service) is shown in Table 2. **[verify table data]**

Table 2. Percentage of Current Employees Eligible to Retire Within the Next Ten Years
(based on age and years of service)

	12/31/2017	12/31/2020	12/31/2025
Employees	11%	6%	15%
Directors and Executives	>1%	>1%	>1%

Source: Authority records.

[The percentage of current Authority employees eligible to retire in five years is slightly higher than the median five-year retirement eligibility for combined water and wastewater utilities, which is 22% (as reported by the 2010 American Water Works Association/Water Environment Federation Qualserve Survey), and is within the range experienced by other large municipal water and wastewater utilities. To prepare for future retirements, since 2006, the Authority has had in place a comprehensive succession planning program for senior executives and a knowledge capture program for operational elements of the organization. In addition to identifying tacit knowledge use in operational activities, the knowledge capture program is identifying needed competencies to improve the replacement process, as well as improving the efficiency of the studied processes.]

Retirement/Pension Plan

The Authority employees hired before October 1, 1987, participate in the U.S. Civil Service Retirement System (the “CSRS”). The employees and the Authority each annually contribute 7% of the employee’s base pay to the CSRS. The Authority employees who retire under the CSRS receive retiree medical and life insurance benefits under the Federal Employees’ Health Benefits Program and the Federal Employees’ Group Life Insurance Program at no cost to the Authority. The Authority has no other post-employment benefits liability relating to medical or life insurance benefits under the CSRS programs.

With a few exceptions, all of the employees hired after September 30, 1987, participate in the U.S. Social Security System and the Authority’s Defined Contribution Plan. Under the Authority’s Defined Contribution Plan, the Authority annually contributes 7% of base pay plus an additional 5% of base pay earning above the Social Security Wage Base. Employees do not contribute to this plan and are 100% vested in the plan after three years of continuous service. The Authority has no other post-employment benefits liability relating to medical or life insurance benefits under the Defined Contribution Plan. The Authority employees hired after September 30, 1987, do not receive any retiree medical or life insurance benefits.

Starting in January 2000, employees who were hired after September 30, 1987, participate in a 457(b) Deferred Compensation plan administered by the Authority. The Authority makes a matching contribution of 100% of the amount that the employee defers to the 457(b) Deferred Compensation Plan up to a maximum contribution of 5% of base pay for eligible employees. There is no waiting period before an employee can elect to become a participant of this plan and employees are 100% vested in their contributions.

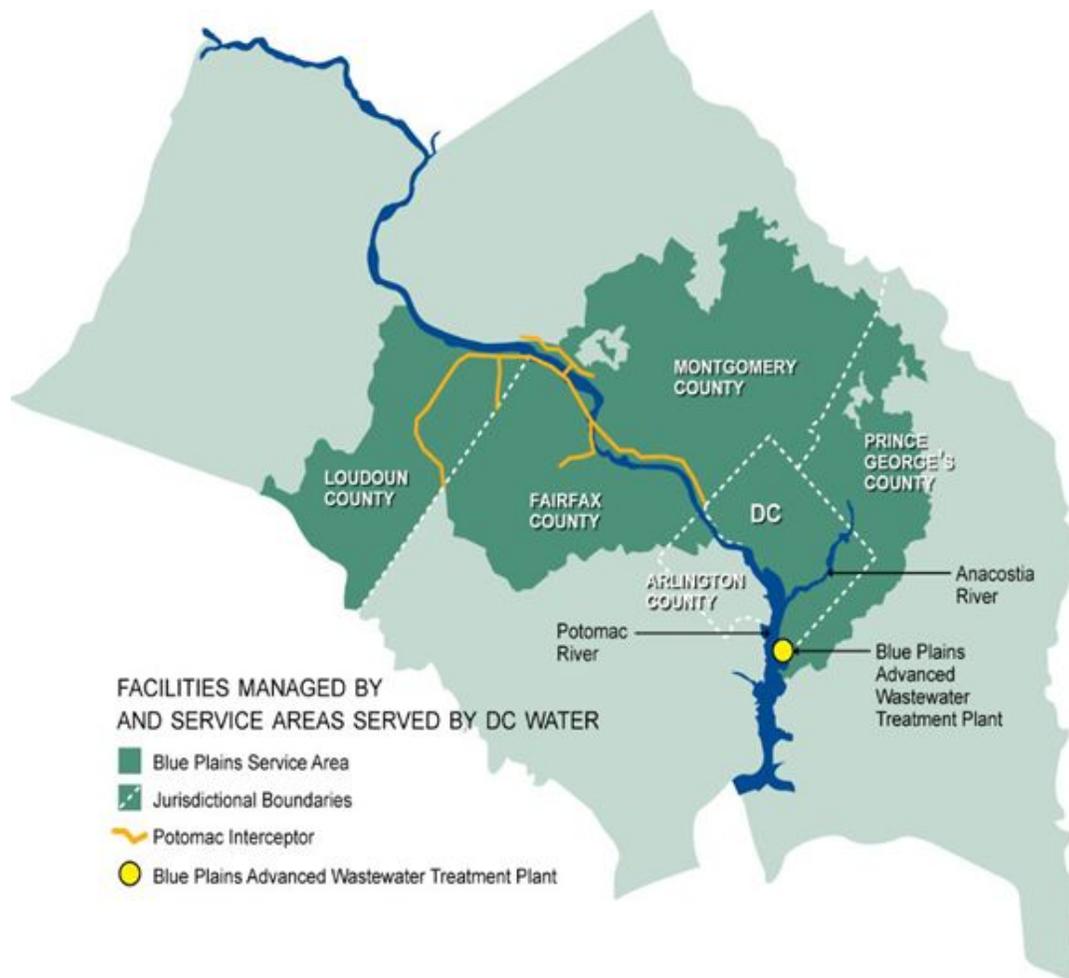
The Authority has no unfunded pension liability or other post-employment benefits liability under any of the plans described above.

Risk Management and Insurance

The Authority has developed a comprehensive risk management and insurance program which is annually reviewed and periodically bid by management and their independent insurance advisors through qualified brokers and direct insurance writers. The most recent risk management, insurance assessment and bid process was completed in July 2017. The Authority’s insurance policies (including liability insurance and workers’ compensation, property, equipment, crime, fiduciary, public officials’ and employment practices liability) were renewed July 1, 2017 with coverage through July 1, 2018. Since the passage of the Terrorism Risk Insurance Act of 2002 (“TRIA”), terrorism coverage is included under all insurance policies.

THE SYSTEM

The Authority provides retail water distribution to the District and wastewater treatment, collection and disposal services to the District and certain neighboring counties in Maryland and Virginia. The following section describes the Water and Wastewater Systems of the Authority, including a description of the Aqueduct.



The Wastewater System

History and Description of Blue Plains Advanced Wastewater Treatment Plant

The Authority operates the Blue Plains Advanced Wastewater Treatment Plant (“Blue Plains”), the largest advanced wastewater treatment facility in the United States. The original wastewater treatment facility at the site of Blue Plains was built in 1938. The original facility provided only primary treatment for up to 130 million gallons per day (“mgd”). Subsequently, there have been several expansions and upgrades. Since 1983, Blue Plains has provided advanced treatment, which includes nutrient removal, filtration and dechlorination. The most recent expansion of Blue Plains was completed in 1997, which increased the plant’s capacity to 370 mgd.

Service Area

The Blue Plains service area includes the District (retail service), parts of Fairfax and Loudoun Counties, the Town of Vienna in Virginia, parts of Prince George's and Montgomery Counties in Maryland, Washington Dulles International Airport and various U.S. Government agencies located in Virginia and Maryland (wholesale service). The population of the Blue Plains service area totals approximately 2.3 million, consisting of approximately 700,000 residents of the District and 1.6 million residents of the surrounding jurisdictions. In addition, the Authority annually serves approximately 22.0 million visitors to the area and approximately 800,000 workers in the District.

Wholesale Customer Agreements

Intermunicipal Agreements – In 1985, the District signed the Blue Plains Intermunicipal Agreement of 1985 (the “1985 IMA”) with Fairfax County in Virginia, Montgomery and Prince George's Counties in Maryland and the Washington Suburban Sanitary Commission (the “WSSC”) in order to address wastewater treatment, biosolids management and cost allocation rights, obligations and objectives with respect to Blue Plains. A significant portion of the wastewater collection and all of the wastewater treatment and related biosolids management required by the 1985 IMA was provided by the District at Blue Plains until 1996, when the District created the Authority as an independent authority with regional responsibilities to provide those services through the operation and management of Blue Plains and associated facilities. The District, however, retained and continues to hold title to the real property, appurtenances and fixtures of Blue Plains.

The 1985 IMA was replaced in 2012 by a new Intermunicipal Agreement (the “2012 IMA”), which was negotiated, approved and executed by each of the signatories to the 1985 IMA, in addition to the Authority. The 2012 IMA incorporates provisions and establishes terms relating to: facility location; current and long-range infrastructure planning and development; allocation of wastewater treatment capacity of Blue Plains and associated facilities and related peak flows for the collection system; funding and allocation of the capital costs of wastewater treatment, biosolids management and O&M costs; responsibilities with respect to pretreatment and operational requirements; the process of making future wastewater capacity planning decisions, including load allocations; mechanisms for coordination among the parties; and long-term management of the wastewater treatment and disposal process. Under those terms, the cost of operations and maintenance of Blue Plains are shared among the 2012 IMA signatories on an actual basis, whereas the costs of the capital program of Blue Plains are shared among the 2012 IMA signatories commensurate with their respective capacity allocations, with 45.8% of Blue Plains flow capacity allocated to the District and the remainder to the WSSC (on behalf of Montgomery and Prince George's Counties) and Fairfax County. The 2012 IMA also establishes the Authority's right to require the User Jurisdictions to off-load flows to other wastewater treatment plants as necessary to provide the Authority capacity as needed to serve the District's portion of the service area.

Potomac Interceptor Agreements – Since October 1963, the District has entered into separate, limited allocation agreements with several entities that were tributaries to the Potomac Interceptor sewer as provided by statute. Certain of those agreements remain in effect and include users that did not participate in the IMA as signatories, but are allocated flow capacity under the 2012 IMA in accordance with the original individual agreements they entered into with the District prior to the 1985 IMA. Those entities include the Department of Transportation/Federal Aviation Administration on behalf of Washington Dulles International Airport, the Department of the Navy, the National Park Service, and the Town of Vienna, Virginia, which together account for less than 1% of Blue Plains allocated flow capacity. These Potomac Interceptor agreements provide for the pro-rata recovery, through the District, of the Authority's costs of constructing, operating and maintaining the Potomac Interceptor sewer and certain major interceptor sewers within the Blue Plains service territory. A separate Potomac Interceptor agreement was executed after the 1985 IMA with the Loudoun County Sanitation Authority and is described below.

Loudoun County Sanitation Authority Agreement – In November 1998, the Authority and the District executed an agreement with the Loudoun County Sanitation Authority (“LCSA”) allocating the right to limited Potomac Interceptor flow capacity to the LCSA, including the treatment and disposal of the associated wastewater at Blue Plains. Consistent with that agreement, the 2012 IMA allocates commensurate Blue Plains flow capacity to the LCSA, although it is also not a signatory to the IMA. The agreement requires LCSA to pay for its share of the Potomac Interceptor and Blue Plains operating and capital costs, following the IMA methodology (i.e., based upon metered flows for operating costs and a pro rata capacity allocation for capital costs).

Wastewater Collection

The wastewater collection system consists of approximately 1,900 miles of sanitary, stormwater and combined sewers, 125,000 building sewer laterals, 22 flow-metering stations, nine off-site wastewater pumping stations and 16 stormwater pumping stations. The Authority has completed detailed assessments and a large number of improvements to many of the pumping stations. See “THE SYSTEM – Wastewater Regulation and Permits” below.

Sanitary Sewer System

A sanitary sewer system serves two-thirds of the District's land area. The system includes 600 miles of interceptor and sewer collection pipes with eight sanitary pumping stations. The typical operation is a gravity flow system with a few pumping stations to pump across higher grades in the District. Over the last 15 years, the Authority has completed a number of upgrades to its sanitary sewer system, which have made the system compliant with new code standards and regulations, and increased the efficiency and effectiveness of several of the system's pump stations.

Combined Sewer Overflow Wastewater System

Approximately one-third of the District's land area is served by a combined sewer overflow ("CSO") wastewater system that combines both stormwater and wastewater in a single conveyance system. Combined sewer systems are common among older cities throughout the United States. The District's combined sewer system conveys only sanitary flow to Blue Plains during dry weather. During and immediately following periods of heavy rainfall, however, the combined sanitary and stormwater flows frequently exceed the capacity of the combined sewer system and a combination of stormwater and untreated wastewater is discharged through one or more of the 53 existing CSO outfalls authorized in the Authority's NPDES Permit. See "THE SYSTEM - Wastewater Regulation and Permits – NPDES Permit" below.

Biosolids Disposal

In the second quarter of Fiscal Year 2015, the Authority fully implemented its new Blue Plains biosolids processing facilities featuring thermal hydrolysis and anaerobic digestion. Operation of these facilities resulted in a reduction in biosolids production from 1200 tons per day (60 truckloads) to approximately 500 tons per day (25 truckloads). These biosolids are considered Class A (as defined by EPA) and are currently applied directly to farmland at various sites in Virginia and Maryland, with disposal in landfills being utilized as an alternate method if weather conditions do not allow land application. Because the biosolids are Class A, the Authority has greater flexibility in its efforts to recycle biosolids produced at Blue Plains than it did prior to the new processing facilities. See "CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Wastewater Treatment Projects."

Wastewater Regulation and Permits

NPDES Permit. Blue Plains is authorized to discharge treated effluent to the Potomac River through two outfalls (Outfalls 001 and 002) pursuant to an NPDES permit (the "NPDES Permit") that was reissued to the Authority by the U.S. Environmental Protection Agency (the "EPA") effective September 30, 2010. Discharges through Outfall 002, which consist of sanitary flow and some combined sewer flow from the CSO system during and following rainfall events, receive complete treatment. Combined sewer flows that exceed Blue Plains' capacity to provide complete treatment receive partial treatment and are discharged through Outfall 001. The NPDES Permit also authorizes discharges to the Anacostia River, the Potomac River and Rock Creek from the combined sewer system through a total of 53 CSO outfalls and four emergency relief outfalls.

The NPDES Permit requires that discharges from the CSO outfalls not exceed those limits necessary to comply with applicable water quality standards under the Clean Water Act, 33 U.S.C. § 1251 et seq. (the "Clean Water Act"). The Authority was the first agency to meet the voluntary nutrient reduction goal of the 1987 Chesapeake Bay Agreement. See "*The Chesapeake Bay Agreements*" below. The NPDES Permit also requires the development and implementation of a Nine Minimum Controls program (the "NMC Program"), consisting of proper operation and maintenance of the existing collection and treatment system to minimize untreated discharges from the CSO outfalls, as well as the implementation of a CSO Long-Term Control Plan (the "DC Clean Rivers Project")^{*} designed to control CSO discharges to prevent them from causing or contributing to violations of applicable water quality standards.

The DC Clean Rivers Project is being implemented pursuant to a consent decree among the Authority, the District, and the United States dated March 25, 2005 (the "2005 LTCP Consent Decree"). In 2016, the Authority successfully renegotiated an amendment to the 2005 LTCP Consent Decree that modifies the DC Clean Rivers Project to include green/gray infrastructure in the Potomac Watershed and green infrastructure in the Rock Creek Watershed. According to the amended 2005 LTCP Consent Decree, pursuant to the DC Clean Rivers Project, the Authority will construct 17 miles of tunnels with a combined storage capacity of 187 million gallons, five new tunnels, a low lift pumping station, several diversion structures and sewers to collect CSO overflows, and green infrastructure to control selected CSOs. The amended 2005 LTCP Consent Decree does not have an expiration date.

^{*} Note that in prior Official Statements of the Authority the DC Clean Rivers Project was referred to as the "CSO LTCP".

The DC Clean Rivers Project continues on schedule. The FY 2018 – FY 2027 CIP includes approximately \$1.42 billion for the costs of the DC Clean Rivers Project and combined sewer projects. See “CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Combined Sewer Overflow Projects.” Effective May 1, 2009, the Authority implemented a rate structure that more equitably allocates the costs of the DC Clean Rivers Project to retail customers based on the impervious surface area on customers’ properties. See “CUSTOMER BASE, RATES AND CHARGES – Rate-Setting Authority – Components of Retail Rates and Charges – Clean Rivers Impervious Area Charge.”

Industrial Pretreatment Program. As with most large wastewater systems, the Authority, under the provisions of the Clean Water Act, operates an industrial pretreatment program to control the discharge into the wastewater system of industrial wastewater containing certain toxins or prohibited pollutants. The Authority regulates 50 “significant industrial users” as defined by EPA regulations. Fourteen of these users are located within the District; the remaining users are located in the User Jurisdictions.

Wastewater Consent Decree and Stipulated Agreement and Orders. Upon its creation, the Authority assumed responsibility for compliance with various legal actions taken against the District related to the operation of, and discharges from, Blue Plains, specifically including a judicial Consent Decree issued in 1995 (the “1995 Consent Decree”) and a subsequent Stipulated Agreement and Order (the “1996 Stipulated Agreement and Order”). The Authority is presently in compliance with all of the requirements under each of the 1995 Consent Decree and the 1996 Stipulated Agreement and Order. The EPA Region III has acknowledged satisfaction of these requirements, although the 1995 Consent Decree remains in effect.

The Chesapeake Bay Agreements. In 1987, the Mayor of the District and the Governors of the Commonwealths of Virginia and Pennsylvania and the State of Maryland entered into the 1987 Chesapeake Bay Agreement, committing each jurisdiction to, and subsequently achieving, a 40% reduction of nutrients, such as nitrogen and phosphorus, reaching the main stem of the Chesapeake Bay by the year 2000. Unlike many municipal wastewater treatment facilities that discharge into the Chesapeake Bay, the Authority has historically removed phosphorus and nitrogen. As a supplemental environmental project in settlement of liability for stipulated penalties under the 1995 Consent Decree, the Authority installed a pilot program to test a nitrogen reduction process on one-half of its wastewater, which demonstrated a greater than 40% nitrogen reduction in completely treated effluent. As a result, in 2000, the Authority began operation of full plant scale biological nutrient removal.

In 2000, the parties entered into Chesapeake 2000, a comprehensive agreement to guide further efforts to improve the water quality in the Chesapeake Bay through 2010. In April 2007, the EPA issued a modification to the Authority’s NPDES Permit, reflecting a new total nitrogen effluent limit for Blue Plains, which was developed to match the goals of Chesapeake 2000. In addition to meeting the new effluent limit for total nitrogen, the Authority had existing NPDES Permit requirements for treating wet weather flows at Blue Plains as part of its long-term control plan for the combined sewer system. In October 2007, the Authority submitted to the EPA the Blue Plains Total Nitrogen Removal/Wet Weather Plan (“TN/Wet Weather Plan”), setting forth the Authority’s proposal and schedule to attain the new nitrogen limit and to satisfy its wet weather treatment obligations. The principal TN/Wet Weather systems include the Blue Plains Enhanced Nitrogen Removal Facilities program (“ENRF”), which was designed to achieve advanced effluent treatment with nitrification and denitrification facilities, and the extension of the tunnels system from Poplar Point to Blue Plains, including tunnel dewatering and enhanced clarification facilities at the tunnels system terminus. In September 2008, the Authority submitted to the EPA a summary report that provided a plan for implementing the wet weather aspects of the TN/Wet Weather Plan. The EPA approved the TN/Wet Weather Plan in July 2010.

The Authority’s current NPDES Permit, issued on September 30, 2010, required the Authority to comply with a new total nitrogen discharge limit by January 1, 2015. The ENRF was completed and began treating the full Blue Plains plant flow in October 2014, satisfying the Authority’s obligation to begin compliance by January 1, 2015. See “CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Wastewater Treatment Projects.”

On June 16, 2014, the parties to Chesapeake 2000 and the Governors of the State of Delaware, New York and West Virginia entered into the Chesapeake Watershed Agreement (“2014 Chesapeake Agreement”) committing to have in place practices and controls to achieve 60% reduction of nutrients and sediments by 2017. On March 9, 2018, the Authority began operation of all TN/Wet Weather systems, which satisfies the requirements of the 2014 Chesapeake Agreement.

Air Quality Regulations. The Authority has applied for and received from the DOEE numerous air quality permits under Chapter 2 of Title 20 of the District of Columbia Municipal Regulations for several emission sources. The terms of the Chapter 2 air quality permits as well as other applicable requirements relating to air pollution will eventually be incorporated into an air quality operating permit under Chapter 3 of Title 20 of the District of Columbia Municipal Regulations (“Chapter 3 Operating Permit”). The Authority submitted an application to the DOEE for the Chapter 3 Operating Permit in March 2008, which was still pending as of the date of this Official Statement.

Future Matters. In addition to continued compliance with its current permits and regulations described above, in the future, the Authority’s wastewater discharges may become subject to additional requirements based on new federal or local requirements. As the EPA or the District promulgate additional regulations, the Authority may be required to modify operations and/or construct facilities beyond those contemplated in the CIP. As an example, in September 2017, the DOEE published proposed revisions to the District’s ambient water quality standards. In December 2017, the Authority submitted comments to the DOEE challenging its proposed revisions to certain standards and requesting the DOEE to perform a use attainability analysis and an impact assessment prior to finalizing the proposed revisions. In February 2018, the DOEE reported to the Council of the District of Columbia that the impact assessment will take a year or more to complete. The Authority will continually monitor such proposed regulations and impact assessment and will advocate, as necessary, on behalf of itself and its rate payers.

Another example of the foregoing is that, on November 23, 2015, the Authority filed a declaratory action in the U.S. District Court for the District of Columbia against the EPA, seeking to correct alleged technical errors in a regulatory action related to the Total Maximum Daily Load (“TMDL”) for E. coli. The TMDL, as approved, did not account for the normal day-to-day variability at Blue Plains and, if enforced against the Authority, could have required significant capital improvements at Blue Plains. On January 13, 2017, EPA issued a revised decision rationale, which resolved the issues that the Authority challenged. On March 13, 2017, the parties filed a motion to dismiss the Authority’s complaint and the case was closed.

The Water System

The Washington Aqueduct

Established in 1852, the Washington Aqueduct Division of the U.S. Army Corps of Engineers (the “USACE”) provides water to the District and parts of Virginia. The USACE owns and operates the Washington Aqueduct (the “Aqueduct”), including its two water treatment plants, raw water conduits, reservoirs, pumping stations and treated water transmission lines.

The Aqueduct facilities supply treated water to distribution systems of the Authority, Arlington County, Fairfax County Water Authority (“FCWA”) (collectively, the “Aqueduct Customers”), the federal government, and other parts of northern Virginia. In January 2014, FCWA assumed ownership and operation of the water distribution system previously owned and operated by the City of Falls Church. The Authority is responsible for managing the treated Water System that serves the District and several other governmental customers outside the District. The Authority purchases approximately 73% of the finished water produced by the Aqueduct, and Arlington County and the FCWA purchase the remainder. The Authority’s share of the water purchased from the Aqueduct in the last ten Fiscal Years is set forth in Table 3. For a discussion regarding the reduction in consumption and customer demand, see “CUSTOMER BASE, RATES AND CHARGES – Customer Demand.”

Table 3. Historical Water Demand

Fiscal Year ended September 30	Annual Deliveries to System (MG)	Average Day (MGD)	Max Day (MGD)
2008	40,755	111.7	150.5
2009	39,998	109.6	150.4
2010	38,589	105.7	146.9
2011	37,556	102.9	143.7
2012	36,930	100.9	142.9
2013	34,714	95.1	129.7
2014	34,708	95.1	123.7
2015	38,146	104.5	148.4
2016	36,363	99.4	127.7
2017	35,827	98.2	122.7

Source: Authority’s Records.

The Aqueduct draws water from the Potomac River, which is the predominant source of water in the District and the User Jurisdictions. As a result of the Potomac River’s importance for maintaining adequate water supply, the

Interstate Commission on the Potomac River Basin (“ICPRB”) and the Metropolitan Washington Council of Governments (“COG”), have maintained a drought plan since 1978, through which the Potomac River’s water supply is supplemented by a 23.5 billion gallon reserve that is stored at three separate off-river reservoirs. Due to the maintenance of this strategic reserve, the ICPRB has been able to effectively manage drought conditions and effectively allocate water resources during drought events.

The federal Safe Drinking Water Act Amendments of 1996 authorized the Secretary of the Army with the consent of the Authority, the City of Falls Church and Arlington County to either establish a non-federal public or private utility to receive title to operate, maintain and manage the Aqueduct or to allow the USACE to remain as owner and operator with the Authority, the City of Falls Church and Arlington County having some input into strategic operations, direction, operations and capital improvement of the Aqueduct. In May 1998, the Authority, the City of Falls Church, Arlington County and the USACE executed a Memorandum of Understanding that the USACE would continue to own and operate the Aqueduct facilities. In December 2013, the Authority, FCWA, Arlington County and the USACE executed a revised Memorandum of Understanding to include the FCWA as the successor in interest to the City of Falls Church.

The Aqueduct has developed a capital improvement program, including improvements to the Dalecarlia and McMillan Water Treatment Plants (each a “WTP”), raw water conduits, pumping stations and reservoirs. Over the next ten years, the Authority estimates that its share of the cost of the Aqueduct capital improvements will be \$120.1 million, which is accounted for in the CIP. See “CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Washington Aqueduct Projects.”

The Trump Administration’s proposed 2018 budget contemplates a potential divesting of the Aqueduct by USACE. In response to that proposal, the Authority is working with the other Aqueduct customers to consider and evaluate a range of possibilities, including, among others: transfer of ownership to an existing public authority (which could include the Authority); enhancing operations and maintaining current ownership; or creating a new regional water authority. At this point, no prediction can be made as to whether a divesting of the Aqueduct by USACE will occur, or, if it does, who might acquire the Aqueduct, or what the terms of the acquisition might be.

Water Sales Agreement

Pursuant to a Water Sales Agreement, dated as of July 31, 1997, by and between the Authority and the USACE (the “Water Sales Agreement”), the USACE sells and furnishes to the Authority all of the finished water that the Authority requires for the operation of the Water System to the extent that the USACE has water and facilities available at the Aqueduct. In accordance with the Water Sales Agreement, the Authority is obligated to make monthly payments into an escrow account to be used by the USACE to cover the Authority’s pro rata share, based on its consumption of water, of the costs of the operation and capital improvement of the Aqueduct. The Authority currently contributes approximately 73% of capital and operating expenditures of the Aqueduct. The Water Sales Agreement will remain in effect until September 30, 2023, unless earlier terminated in accordance with its terms. Thereafter, the Water Sales Agreement may continue until terminated by either party giving the other party not less than six months’ prior written notice.

Water Supply

The Aqueduct obtains its water supply from two Potomac River intakes at Great Falls and Little Falls. Two other regional water suppliers, FCWA and WSSC, also obtain for processing at their drinking water treatment facilities water from the same area of the Potomac River. Water for the Authority is withdrawn at the Great Falls intake and flows by gravity through two nine-mile conduits and is then pumped to the Dalecarlia Reservoir. Water also may be withdrawn from the Little Falls intake and pumped to the Dalecarlia Reservoir. The Dalecarlia Reservoir acts as a presedimentation basin for water drawn into the Dalecarlia WTP and for water diverted to the Georgetown Reservoir for subsequent treatment at the McMillan WTP.

In 1978, the United States, the District, the State of Maryland, the Commonwealth of Virginia and the FCWA entered into a Low Flow Allocation Agreement to provide a basis for allocation of resources during severe drought conditions and outline procedures to be followed in such circumstances. Water supply reservoirs developed on Little Seneca Creek and the north branch of the Potomac River are designed to augment the natural flow of the Potomac River during low flow conditions and ensure that the Washington metropolitan area will have sufficient water for years to come.

Raw Water Supply Agreements

A series of agreements ensures the continuous adequate supply of water to the Aqueduct’s and the Authority’s customers. The following are the Authority’s raw water supply agreements:

The Savage Reservoir Maintenance and Operation Cost Sharing Agreement was executed in June 1982. Pursuant to the laws of the State of Maryland, the Upper Potomac River District contracted with the District, WSSC, FCWA and Allegheny County, Maryland, to share the operation, maintenance, repair and replacement costs of the Savage Reservoir project located in western Maryland. This agreement provides for releases from Savage Reservoir that mix with, and thereby reduce, the acidic nature of the Jennings Randolph Lake waters. The Savage Reservoir cost-sharing agreement was incorporated by reference into the Water Supply Coordination Agreement described below.

The Little Seneca Lake Cost Sharing Agreement was executed in July 1982 by and among the District, WSSC and FCWA to construct a dam and reservoir to provide an adequate supply of potable water continuing into the current century. This agreement calls for WSSC to finance, construct, operate and maintain Little Seneca Lake. The Authority's share of the project and operating and maintenance costs under the agreement is 40%. The Little Seneca Lake Cost Sharing Agreement was incorporated by reference into the Water Supply Coordination Agreement described below.

The Water Supply Coordination Agreement was executed in July 1982 by and among WSSC, FCWA and the Aqueduct to provide for the coordinated operation of its water supply sources and cooperative regional management of the water supply system and the cost-sharing arrangement for any water supply projects for the Washington metropolitan area, if and when they are needed.

The Novation and Future Water Supply Storage Agreement was executed in July 1982, by and among the United States, the Maryland Potomac Water Authority, WSSC, FCWA and the District, to provide for initial water supply storage in the Jennings Randolph Lake reservoir of approximately two billion gallons. The Novation and Future Water Supply Storage Agreement increases the amount of water supply storage to 13.4 billion gallons, or 32% of the reservoir's total storage. Of the remaining reservoir storage 40% is designated for water quality and 28% for flood control.

Water Treatment and Storage

The Authority receives finished water from the Dalecarlia and McMillan WTPs. The original Dalecarlia WTP was completed in 1928, and underwent major expansion and improvements in 1964. The McMillan WTP was constructed in 1985 on the site of the original 1905 plant. The design capacity of the Dalecarlia and McMillan WTPs was based on population growth and water use projections that are greater than have been realized to date. The total treatment capacity of the plants of 370 mgd currently exceeds the day-to-day demands and peak requirements of their respective service areas.

Finished water from the Dalecarlia WTP is pumped by the Dalecarlia Pumping Station to the following reservoirs which serve various pressure zones within the District: Brentwood, Foxhall, Van Ness and Fort Reno Reservoir No. 1 and No. 2. Finished water from the McMillan WTP is pumped by the Authority's Bryant Street Pumping station to District customers. Brentwood and Reno No. 1 reservoirs, which can store up to 143.5 million gallons ("mg") of finished water, are the Authority's facilities. The other three reservoirs are owned and operated by the Aqueduct and can store up to 125 mg of finished water. Flexibility in the distribution system is provided so that each of the two water pumping stations can pump to other reservoirs in the distribution system as circumstances dictate.

Sold vs. Pumped Ratio

The Authority regularly monitors the ratio of water billed to customers (sold water) versus water it purchases from the Aqueduct (pumped water). Unlike many other water utilities, the Authority does not adjust this ratio for water used in normal system activities, such as firefighting and system maintenance, including flushing of water mains and hydrant testing.

The sold versus pumped ratio decreased from 72.40% in 2016 to 72.14% in 2017. Water sales figures are derived from the operating budget of the Authority and may not be consistent with the audited financial statements for each year. The cost of unbilled water is not substantial relative to total annual expenses of the Authority.

Water System Regulation and Permits

Drinking Water Quality

The water operations of the Aqueduct and the Authority are subject to the requirements of the federal Safe Drinking Water Act of 1974, 42 U.S.C. § 300f et. seq., as amended in 1986 and 1996 by Congress. The 1986 amendments to the Safe Drinking Water Act extended the regulatory agenda of the EPA to include, among other things, the development of drinking water standards for 90 contaminants.

The Aqueduct and the Authority are in substantial compliance with all physical, chemical, radiological and bacteriological standards established by the regulations currently in effect under the Safe Drinking Water Act and are studying the potential impacts of proposed rules as well as those still under development by the EPA. As the EPA promulgates additional regulations, there is a potential that the Aqueduct or the Authority will be required to modify operations and/or construct facilities beyond those contemplated by the CIP. The Aqueduct and the Authority management believe, however, that planned capital projects should address all current regulatory requirements.

NPDES Permit and Water Treatment System Sediments

Until April 2003, during high flow periods, the Aqueduct discharged into the Potomac River the river sediments that are removed during the treatment process. The NPDES Permit issued in March 2003 included discharge limitations on sediments. The Aqueduct entered into a Federal Facilities Compliance Agreement (“FFCA”) with EPA Region III, which provides a legally mandated plan and an enforceable compliance schedule for achieving the effluent discharge limitations in the NPDES Permit. The Aqueduct evaluated various options for residuals collection, conveyance, processing and disposal and selected a process which dewateres the residuals on site and transports them off-site for disposal. Construction on this project commenced in Fiscal Year 2008, was completed and placed into service on November 22, 2012. The Authority’s share of the total cost of this project was \$98.6 million. See “CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Washington Aqueduct Projects.”

Lead Levels

Pursuant to the Safe Drinking Water Act, the Lead and Copper Rule promulgated in 1991 by the EPA (the “Lead and Copper Rule”) establishes maximum contaminant level goals and action levels for lead and copper. Large water suppliers, such as the Authority, are required to perform periodic monitoring and optimize corrosion control of water so as to minimize leaching of lead and copper contaminants into drinking water. If more than 10% of the tap water samples contain lead above the “action level” of 15 micrograms per liter, the water supplier is required to perform public education and to optimize the corrosion control treatment. If, after optimal corrosion control treatment has been implemented, the lead level in water at the tap continues to exceed the action level, the supplier must annually replace 7% of existing lead service lines that it owns. Alternatively, the water supplier may demonstrate through testing that individual lead service lines that it owns do not have lead levels above the action level (called “sampling in lieu of replacement”). The supplier may perform a combination of these two actions to attain the 7% annual replacement level. In the District, property owners own the lead service lines.

In August 2002, the Authority reported to EPA Region III that results for the sampling period from July 2001 to June 2002 demonstrated lead levels in excess of the threshold for action established by the Lead and Copper Rule. Elevated lead levels were believed to be linked to changes in the Aqueduct’s water treatment methods. In November 2000, the Aqueduct had switched from free chlorine to chloramines disinfection to reduce the concentration of disinfection byproducts under the federal Disinfectant Byproducts Rule. Elevated lead levels began appearing within a year of the chlorine/chloramines switchover.

In February 2004, EPA Region III commenced an audit of the Authority’s compliance with the Lead and Copper Rule and found noncompliance with regard to sampling, monitoring, public notification and reporting requirements. In an Administrative Order dated June 17, 2004, as supplemented on January 14, 2005, and amended on June 8, 2005 (collectively, the “Administrative Order”), EPA Region III and the Authority agreed to remedies for the issues identified by the compliance audit. The Authority and the Aqueduct undertook appropriate measures to implement corrosion control treatment. Lead levels have consistently been below the action level since 2005 and the Authority is no longer subject to the Administrative Order from EPA Region III.

Pursuant to a Consent Agreement and Final Order (“CAFO”) executed on May 2, 2007, the Authority agreed to pay a civil penalty in the amount of \$10,000 to EPA Region III for certain alleged reporting violations of the Lead and Copper Rule. The CAFO resolved all of the civil claims in connection with these allegations. EPA Region III and the DOJ also conducted an investigation to determine whether any criminal violations occurred in connection with the Annual Report on Lead Service Replacement Program the Authority filed with EPA Region III in October 2003 and the two different methods the Authority used to test lead levels. In October 2008, EPA Region III and the DOJ informed the Authority that it would take no adverse action against the Authority, thereby resolving all criminal claims against the Authority in connection with this matter.

In addition to the measures undertaken by the Authority pursuant to the Administrative Order, in 2004 the Authority commenced a voluntary lead service replacement program, even though not legally required to do so under the Lead and Copper Rule. In order to reduce adverse impacts and costs to ratepayers, lead service replacement construction work was performed in conjunction with sewer laterals, small valves and water main repair work, and the replacement of broken or defective hydrants. However, this resulted in a large number of partial lead service replacements because many property owners declined to replace the lead service line on their private property. In 2008, in response to research

indicating that partial lead service replacements are not effective in reducing lead levels, the Authority discontinued its accelerated replacement program. In September 2009, the Board approved modifications of the Authority's lead service replacement policy to encourage full service line replacements and to manage costs. Under the modified policy, public lead service lines (between the main and the property line) will continue to be replaced with copper pipes in conjunction with: (i) the Authority's water main replacement projects when the Authority must replace the water service pipe to connect to a new water main, and (ii) when the customer replaces the private portion of lead service lines and requests that the Authority replace the public portion of the lead service line.

A study authored by Marc Edwards, PhD, an engineer at the Virginia Polytechnic Institute and State University, and Dana Best, MD, a physician at the Children's National Medical Center, published in the March 1, 2009, issue of *Environmental Science and Technology*, found that the number of toddlers and infants with high blood-lead concentrations more than doubled in certain District neighborhoods that experienced rising lead concentrations in 2001 (the "Edwards Study"). These findings contradicted a report published by the Centers for Disease Control and Prevention (the "CDC") on March 30, 2004 (the "2004 CDC Report"), which found that lead might have contributed a small increase in blood lead levels and claimed that no children with dangerously high blood lead levels were found in the District.

The Edwards Study prompted the U.S. House of Representative's Committee on Science and Technology to open an investigation into the 2004 CDC Report. The Majority Staff of the Subcommittee on Investigations and Oversight of the Committee on Science and Technology issued a report on May 20, 2010, releasing its findings. The Subcommittee's primary findings include, among others, that (i) the CDC knowingly used flawed data in drafting the 2004 CDC Report, leading to "scientifically indefensible" claims being included in the 2004 CDC Report, and (ii) the CDC failed to publicize later research showing that the harm was more serious than the 2004 CDC Report suggested. In May and June 2010, the CDC issued two notices to the readers of its digest, *Morbidity and Mortality Weekly Report*, admitting that the 2004 CDC Report was misleading and that it "should not be used to make conclusions about the contribution of water lead to blood levels in DC, to predict what might occur in other situations where lead levels in drinking water are high, or to determine safe levels of lead in drinking water." In December 2010, the CDC published a study of the District's water supply conducted from 1998 to 2006, which concluded that children living in the District were exposed to high levels of lead despite an attempt to prevent the water from being contaminated by partial lead service replacements. The 2010 CDC Study confirms information the Authority received in previous years which led the Authority in 2008 to discontinue the partial lead service line replacements. Partial line replacements can cause agitation that temporarily releases lead into the home, which can cause a temporary spike in lead levels. As described above, the Authority modified its lead service line replacement program in 2009 and continues its efforts to address lead in drinking water by: (i) monitoring household lead levels to ensure drinking water is in compliance with the EPA drinking water standards, (ii) conducting research on household plumbing characteristics, (iii) offering free lead testing, (iv) recommending full lead service replacements on public and private property, (v) providing free water filters and lead testing following a full or partial lead service line replacement, (vi) recommending that pregnant women and children under the age six should use filtered tap water for drinking and cooking until all sources of lead impacting water are removed, and (vii) participating in coordinated District interagency meetings and responses to lead in water issues.

The Authority estimates the cost of the lead service line replacement program in the CIP at \$13.7 million over the next 10 years. From the inception of the line replacement program through September 30, 2017, the Authority expended \$209.2 million on the lead service line replacement program. See "CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Water Projects."

Protection of the Water System and Wastewater System

In 2000, the Authority developed and implemented an extensive security program in conjunction with the District's Metropolitan Police Department and various federal agencies, including the Federal Bureau of Investigation and the Bureau of Alcohol, Tobacco and Firearms (the "2000 Security Program"). After the events of September 11, 2001, and in response to certain provisions of the Bioterrorism Act of 2002 and amendments to the Safe Drinking Water Act pertaining to security for community water systems, the Authority implemented additional security measures beyond the 2000 Security Program.

The Aqueduct and each of the Aqueduct Customers has independent obligations under law to protect the community water systems they operate. Both the Authority and the Aqueduct completed studies of Water System vulnerability using the Sandia National Laboratories RAM-W methodology. The vulnerability reports were submitted to EPA Region III in March 2003 to fulfill the Bioterrorism Act requirement for a vulnerability assessment.

Blue Plains and the primary water and sewer distribution facilities it operates are fenced, gated and manned 24 hours a day by security officers. Major security technology video surveillance, intrusion alarm monitoring, and access control management system upgrades are utilized, with significant security technology upgrades in progress at several facilities and properties. The secondary distribution facilities are monitored by vehicular security patrols as well as some security technologies. The Authority also employs cameras and other monitoring equipment at these facilities.

Access to facilities operated by the Aqueduct is also controlled and the Aqueduct has increased security at both staffed and remotely operated facilities. In conformance with the requirements of the Safe Drinking Water Act, the Aqueduct contracted with the Interstate Commission on the Potomac River Basin to develop a source water assessment and monitoring program. The program was implemented in 2002.

In addition, as to cybersecurity, in accordance with Executive Order 13636 “Improving Critical Infrastructure Cyber Security,” the Authority has developed a cybersecurity framework that enables it and its partners to meet all of the Authority’s business/mission objectives by implementing information systems with consideration to IT-related risk. This goal is met through the following security objectives: confidentiality – data stored on an information systems is not disclosed to unauthorized individuals; integrity – there has not been an unauthorized alteration of the data while in storage or in transit, and the information system is free from unauthorized changes; availability – the system functions as designed and service is available to authorized users upon demand; accountability – actions of an entity may be traced uniquely to that entity; assurance – confidence that the security measures protect the information system and the information it processes. The Authority has purchased Cyber Liability and Breach Notification insurance coverage for third party liability and privacy notification expenses resulting from data breaches. The total aggregate coverage is \$5 million.

While the Aqueduct and the Authority have taken these actions to help ensure the security of the System, the Authority does not represent that any existing or additional safety and security measures will be adequate in the event that terrorist activities are directed against the System.

CAPITAL IMPROVEMENT PROGRAM

General

The Authority utilizes an annually adopted ten-year Capital Improvement Program to plan and manage the capital investments necessary to fulfill its service missions, comply with regulatory requirements and preserve and upgrade its Water and Wastewater Systems. The Authority updates the CIP annually in conjunction with its budget process, based on detailed project review by engineering staff, external engineering consultants retained by the Authority and senior management.

The Authority evaluates and prioritizes capital projects based on specific criteria. These criteria are fundamental in developing a CIP based on demonstrated needs and are set forth in Table 4 and described below.

Table 4. Capital Improvement Program Criteria
(\$ in thousands)¹

Fiscal Year	Mandates²	Health and Safety³	Board Policy⁴	Potential Failure⁵	High Profile Good Neighbor⁶	Good Engineering/High Payback⁷	Good Engineering/Lower Payback⁸	Total
FY 2018	\$220,594	\$10,328	\$32,116	\$36,138	\$5,812	\$92,413	\$52,549	\$449,950
FY 2019	206,711	7,019	43,217	47,806	3,663	76,930	53,771	439,118
FY 2020	152,280	7,041	63,657	57,981	4,152	87,635	47,595	420,342
FY 2021	142,424	11,344	37,695	37,540	1,122	119,039	53,517	402,681
FY 2022	197,784	9,496	10,087	38,155	165	133,632	56,328	445,647
FY 2023	154,862	4,883	19,363	39,348	303	122,177	44,377	385,312
FY 2024	63,987	7,251	38,615	30,456	2,206	129,966	53,803	326,284
FY 2025	54,461	1,296	60,417	33,961	389	121,212	46,624	318,360
FY 2026	132,361	1,503	61,314	34,272	-	116,760	93,218	439,428
FY 2027	89,417	1,021	47,707	15,336	-	85,510	136,013	375,004
Total	\$1,414,882	\$61,181	\$414,188	\$370,993	\$17,812	\$1,085,274	\$637,796	\$4,002,125
% of Total	35.4%	1.5%	10.3%	9.3%	0.4%	27.1%	15.9%	

Source: Authority records.

¹ Column and row totals may not add due to rounding.

² Agreements, regulatory standards, court orders, issues and permits requirements, stipulated agreements, etc.

³ Projects required to address public safety.

⁴ Projects undertaken as a result of the Board’s commitment to outside agencies.

⁵ Projects related to facilities in danger of failing or critical to meeting permit requirements.

⁶ Projects that address public concerns.

⁷ Projects that are necessary to fulfill mission and upgrade facilities.

⁸ Lower priority projects.

Since its creation in 1996 through September 30, 2017, the Authority has expended approximately \$5.4 billion, on a cash disbursement basis, for capital improvement projects, including \$2.5 billion for projects at Blue Plains, \$814.3 million for Water System infrastructure projects, \$1.7 billion for the DC Clean Rivers Project and combined sewer projects, \$375.0 million for sanitary sewer projects, \$30.2 million for non-process facilities, and \$84.0 million for meter replacement/AMR projects.

The Authority estimates the cost of the Fiscal Year 2018 – 2027 CIP at \$4.0 billion on a cash disbursement basis, including approximately \$855.9 million for wastewater treatment projects at Blue Plains, \$1.4 billion for the DC Clean Rivers Project and combined sewer projects, \$730.7 million for Water System infrastructure projects, \$532.5 million for sanitary sewer projects, \$24.5 million for stormwater projects, \$108.0 million for non-process facilities, \$152.8 million for capital equipment, \$120.0 million for Washington Aqueduct Division projects and \$45.3 million for meter replacement/AMR projects. The Board approved the CIP on March 1, 2018.

An overview of the CIP project categories and the sources of funding is set forth in Table 5.

**Table 5. Fiscal Year 2018 - 2027 Capital Improvement Program
Sources and Uses of Capital Funds
Fiscal Years ended/ending September 30
(\$ in thousands)¹**

	Actual(s) ²	Projected										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
BEGINNING BALANCE	\$106,057	\$172,706	\$249,878	\$134,554	\$123,657	\$121,193	\$122,019	\$121,503	\$122,842	\$136,701	\$101,360	\$172,706
SOURCES OF FUNDS:												
Proceeds from Rev. Bonds	332,373	300,000	110,000	195,183	159,054	201,898	150,265	100,000	100,000	135,964	100,000	1,552,364
Proceeds from Environmental Impact Bonds	25,000	0	0	0	0	0	0	0	0	0	0	0
System Availability Fee (SAF)	0	1,925	3,850	5,775	7,700	7,700	7,700	7,700	7,700	7,700	7,700	65,450
Transfer from Operations (CRIAC)	0	13,513	30,824	34,047	38,684	41,543	44,396	45,734	45,890	46,867	48,284	389,782
Transfer from Operations (Pay-Go)	117,272	87,803	65,948	77,992	89,264	94,846	98,566	101,074	103,126	107,869	111,372	937,860
EPA Grants /FEMA Grants/DC Reimbursement	14,246	23,620	44,339	29,996	25,300	20,941	20,941	20,941	20,941	15,083	15,083	237,183
CSO Grants	14,021	8,500	0	0	0	0	0	0	0	0	0	8,500
Wholesale Customer Capital Contributions	107,288	90,214	65,851	62,795	79,022	77,526	61,425	51,175	53,561	89,243	96,586	727,398
Interest Income	1,764	1,549	2,981	3,658	1,193	2,019	1,503	1,000	1,000	1,360	1,000	17,262
Total Sources	\$611,964	\$527,124	\$323,793	\$409,446	\$400,216	\$446,472	\$384,795	\$327,623	\$332,218	\$404,085	\$380,024	\$3,935,798
USES OF FUNDS:												
Water System Projects	\$47,309	\$58,044	\$45,747	\$84,256	\$62,341	\$48,241	\$53,471	\$88,055	\$99,661	\$101,344	\$89,510	\$730,670
Blue Plains Projects	148,104	95,485	74,617	77,853	87,960	89,820	69,560	51,607	62,172	117,623	129,252	855,949
Sanitary Sewer Projects	40,059	29,802	32,947	34,046	53,050	74,492	73,917	75,912	58,882	60,769	38,672	532,489
Combined Sewer	13,127	13,502	10,951	12,511	9,832	10,226	13,397	20,124	15,593	7,393	5,622	119,151
Combined Sewer LTCP (DC Clean Rivers Project)	216,298	168,314	189,392	148,042	138,289	192,859	151,111	59,569	50,018	128,404	87,197	1,313,195
Stormwater Projects	1,384	945	4,909	2,400	2,312	5,839	1,212	1,784	1,642	1,276	2,133	24,452
Non Process Facilities	25,189	32,194	33,107	18,907	7,860	1,551	25	6,615	7,773	0	0	108,032
Washington Aqueduct Division Projects	15,483	11,768	12,930	12,944	13,039	13,039	12,312	11,768	11,441	10,496	10,315	120,052
Capital Equipment	18,324	27,135	27,400	24,265	23,380	6,961	7,688	8,232	8,559	9,504	9,685	152,809
Meter Replacement / AMR / CIS	20,038	12,763	7,118	5,118	4,618	2,618	2,618	2,618	2,618	2,618	2,618	45,325
Total Uses	\$453,315	\$449,952	\$439,118	\$420,342	\$402,681	\$445,646	\$385,311	\$326,284	\$318,359	\$439,427	\$375,004	\$4,002,124
SOURCES MINUS USES	66,649	77,172	(115,325)	(10,896)	(2,465)	826	(516)	1,339	13,859	(35,342)	5,020	(66,326)
ENDING BALANCE³	172,706	249,878	134,554	123,657	121,193	122,019	121,503	122,842	136,701	101,360	106,380	106,380

¹ Totals may not add due to rounding

² Preliminary results, unaudited

³ Beginning in FY 2019, the Authority will set aside \$30 million of cash on hand from the above sources to serve as a contingency for the DC Clean Rivers Project. The ending balance shown above in each year beginning in Fiscal Year 2019 is inclusive of these funds and assumes that such funds are not drawn down through Fiscal Year 2027.

Source: Authority Records.

Categories of CIP Projects

Water System Projects. Projects in the water service area are designed to maintain an adequate and reliable potable water supply to customers and to provide required fire protection for the District. Categories of projects include the rehabilitation and replacement of water mains, water service connections, storage facilities, and pumping stations. The Authority has completed several critical improvements to the Water System, including cross connection removal, and major pumping station and storage facility rehabilitation.

The CIP includes approximately \$731 million in projected disbursements for Water System projects, including new system storage facilities, large diameter water main rehabilitation, 1% renewal of small diameter water mains (including ancillary items, like fire hydrants, valves and service connections) DDOT-related water main projects, and continued funding for the water lead program. See “THE SYSTEM – The Water System – Water System Regulation and Permits – Lead Levels.”

Blue Plains – Wastewater Treatment Projects. Capital projects in the wastewater treatment service area are required to rehabilitate, upgrade or provide new facilities at Blue Plains to ensure that it can reliably meet its NPDES Permit requirements and produce a consistent, high-quality dewatered solids product for land application. The Authority has undertaken several major capital improvement projects to rehabilitate, replace or add new processes and capacity at Blue Plains in recent years, including: (i) a new facility was placed in service in 2015 to comply with NPDES requirements to reduce nitrogen in the plant effluent; (ii) facilities to digest solids after thermal hydrolysis treatment were placed in operation in 2015, reducing the volume by 50% (reducing hauling and recycling costs) and resulting in production of Class A biosolids, which can be applied to land without any pathogen-related restrictions at the site and also can be bagged and marketed to the public for application to lawns and gardens, thereby increasing beneficial reuse options; (iii) a combined heat and power facility to utilize digester gas produced by the process to generate electricity (up to one-third of plant needs) along with steam for the thermal hydrolysis and digestion process, and a belt filter press facility to dewater the Class A product were placed in service in 2016; (iv) a facility upgrade to improve secondary treatment performance for more efficient overall nitrogen removal capability was completed in 2018; (v) construction of a new facility to treat high nitrogen load dewatering recycles was completed in 2018; (vi) the design phase for an upgrade of a raw wastewater pump station, the filtration and disinfection facility and the gravity thickener complex will be completed in 2018; and (vii) an upgrade of one of the influent pumping facilities, which is expected to be completed in 2019; and (viii) a tunnel dewatering pump station and enhanced clarification facilities to pump out and treat flows captured through the Authority’s ongoing combined sewer overflow projects were completed and placed in operation in 2018.

The projected ten-year disbursements for wastewater treatment projects are approximately \$856 million, which includes approximately \$655 million in disbursements for liquid, plant-wide and solids processing projects such as major improvements to filtration, and pumping facilities and \$189 million for the ENRF program projects such as the Tunnel Dewatering Pump Station and Enhanced Clarification Facility.

Sanitary Sewer Projects. The CIP includes approximately \$532 million in projected disbursements for sanitary sewer projects including the rehabilitation of six sanitary sewer pumping stations – Potomac, Main & O, Swirl Facility, East Side, and 3rd & Constitution Avenue, as well as sewer condition assessments that cover 60 miles of the system per year through year 2026. Rehabilitation of the District’s major assets including the Potomac Interceptor, B Street/New Jersey Avenue Trunk Sewer, Northeast Boundary Trunk Sewer, Anacostia Force Main and portions of the other 35 major sewers are also included. Creekbed sewers and sewers under buildings will largely be rehabilitated as part of these projects. The program to rehabilitate other small and large diameter sewers including replacement and lining of laterals, and replacement of manholes, is an ongoing project of the Authority

In 2016, the Authority completed a Sewer System Asset Management Plan. This Plan includes a risk tool that calculates the consequence of failure and likelihood of failure for each sewer in the system. This information can then be used to prioritize sewers for inspection/condition assessment and/or rehabilitation. The Plan also includes a high level risk assessment for all pumping stations in the system which can also be used to help prioritize proposed CIP projects for these facilities. The Sewer System Facilities Plan represents the culmination of an initiative involving sewer inspection and condition assessment, development of a sewer GIS database, hydraulic monitoring and modeling to assess system capacity and the development of prioritized activities for system improvement.

Combined Sewer Overflow Projects. The CIP includes \$1.432 billion for the DC Clean Rivers Project and combined sewer projects. The DC Clean Rivers Project is designed to control combined sewer overflow discharges to prevent them from causing or contributing to violations of applicable water quality standards. See “THE SYSTEM – Wastewater Regulation and Permits – NPDES Permit.” Through the DC Clean Rivers Project, the Authority will construct combined sewage storage/conveyance tunnels that are designed to intercept and store water until Blue Plains can receive and treat the combined sewage. The DC Clean Rivers Project includes a variety of capital improvement projects throughout the System including three large tunnel systems which will accommodate the storage of combined sewer

overflows (“CSOs”) from storm events until they can be conveyed to Blue Plains for treatment. Approximately one-third of the System is served by a combined sewer system, in which both sanitary sewage and storm water flow through the same pipes. When the collection system reaches capacity, typically during periods of heavy rainfall, the system is designed to overflow the excess diluted sewage or CSOs.

The DC Clean Rivers Project also includes the Authority’s green infrastructure initiative. See “THE SYSTEM – Wastewater Regulation and Permits.” The green infrastructure initiative is cost-neutral (as compared to the Authority’s tunnel options) and will reduce the size of the tunnels required to serve the Rock Creek and Potomac River by implementing new environmental technologies on a significant scale. Green infrastructure technologies capture, infiltrate, treat and reuse polluted storm water runoff before it enters the sewer system. Examples of green infrastructure technologies include rain gardens, porous pavements, bio-swells, green roofs, infiltration planters, trees and tree boxes, and rainwater harvesting for non-potable uses such as landscape irrigation. See “DEBT SERVICE REQUIREMENTS – Outstanding Subordinate Debt – Subordinate Bonds - Environmental Impact Bonds.”

When completed, the DC Clean Rivers Project will reduce the combined sewer overflows by at least 96% (exceeding the EPA standard of 85%), reducing pollution to the Potomac, Anacostia and Rock Creek waterways, improving water quality, and reducing locally generated debris from the combined sewer system and local waterways. The Authority expects to implement the DC Clean Rivers Project, which commenced in March 2005, over a 25-year period, at a total estimated cost (including funds spent prior to Fiscal Year 2018) of \$2.8 billion.

Stormwater Projects. The projected disbursements for the stormwater service area in the CIP are approximately \$24 million and include extensions to the system and relief of certain sewers as well as rehabilitation or replacement of deteriorated storm sewers. Also included in the budget is the rehabilitation of the stormwater pumping stations (16) operated and maintained by the District.

Non-Process Facilities Projects. This area accommodates projects approved under the non-process facilities master plan and related improvements necessary to support Authority critical operations. The CIP includes approximately \$108.0 million in projected disbursements for facility land use projects. In Fiscal Year 2018, the Authority will complete its Administrative Headquarters Building at the Main & O Street Campus and relocate over 300 employees into the new LEED Platinum facility.

Washington Aqueduct Projects. The Washington Aqueduct provides wholesale water treatment services to the Authority and other Aqueduct Customers. See “THE SYSTEM – The Water System – The Washington Aqueduct.” Under federal legislation enacted and a memorandum of understanding executed in 1997, the Aqueduct Customers have a role in the oversight of the Aqueduct’s operations and its capital improvement program. The Aqueduct successfully designed, constructed and implemented a new orthophosphate corrosion control system at its water treatment plants in 2005 that meets the optimal corrosion control requirements of the Lead and Copper Rule. As a result, periodic sampling by the Authority shows that lead levels are below the action level, which supported the decision of the Authority to significantly modify its lead pipe replacement program. The CIP includes approximately \$120.0 million for Aqueduct projects. See “THE SYSTEM – The Water System – Water System Regulation and Permits – NPDES Permit and Water Treatment System Sediments.”

Capital Equipment Projects. The CIP includes approximately \$153 million for major information technology projects, vehicle fleet upgrades and maintenance of large equipment projects at Blue Plains and the major water and sewer pumping stations.

Meter Replacement Projects. The CIP includes approximately \$45 million for ongoing meter replacements and continued Automated Meter Reading (“AMR”) system improvements and upgrades to the AMR equipment. This planned upgrade is part of the Authority’s preventative maintenance program for the advanced meter infrastructure, which collects data from approximately 120,000 meter readings per day and is an essential asset to the Authority’s billing process. The upgrades allow the Authority to move to the current version of AMI software and replace aging meters and meter data communication equipment. The project is expected to be completed in calendar year 2018.

CIP Financing Sources

The Authority expects to finance the CIP from multiple sources including revenue bonds, income from certain fees and charges, pay-as-you-go funds, federal and other grants, wholesale customer contributions and interest income, all of which are summarized below.

Revenue Bonds/Commercial Paper Notes. The Authority expects to finance approximately \$1.552 billion, or 39.4%, of the CIP with new long-term debt. The Authority has used, and expects to use in the future, its Commercial Paper Notes and EMCP Notes to fund capital needs on an interim basis, followed by issuance of long-term revenue bonds

(or other forms of indebtedness, as appropriate) to retire outstanding Commercial Paper Notes and EMCP Notes and provide permanent financing for CIP costs. As approved by the Board, the total amount of Commercial Paper Notes outstanding at any time cannot exceed \$150 million. As of the date of this Official Statement, \$85 million of the Series B CP Notes and \$29.2 million of the Series C CP Notes were outstanding. The outstanding Series B CP Notes are expected to be repaid with the proceeds of the Series 2018B Bonds. In addition, the Authority anticipates using proceeds from the EMCP Notes as an additional CIP financing source. As approved by the Board, the total amount of Series A EMCP Notes outstanding at any one time cannot exceed \$100 million. As of the date of this Official Statement, \$50 million of the Series A EMCP Notes were outstanding.

System Availability Fee. On February 1, 2018, the Board approved a new System Availability Fee (“SAF”) to be effective June 1, 2018. The SAF is intended to be a one-time fee, assessed to a property owner of any premises, building or structure, to recover the cost of system capacity servicing all metered water service and sanitary sewer connections renovation or redevelopment projects that require an upsized meter size connection to the water and sewer system in the District. For a renovation or redevelopment project on a property that already has the Authority meters and accounts, credits will be applied for the older meters being removed from the system. Such fees are common in the industry and among utilities in the region. The SAF is based on meter size. The Authority currently expects to raise finance \$65 million, or 1.7%, of the CIP with revenues generated by the SAF.

Clean Rivers Impervious Area Charge. The Authority currently expects to finance about \$390 million, or 9.9%, of the CIP with revenues received from the Clean Rivers Impervious Area Charge (“CRIAC”), which was implemented in Fiscal Year 2009 to recover the costs of the DC Clean Rivers Project. Beginning in 2018, the Authority intends to allocate a portion of the CRIAC revenues to fund capital projects. For more information regarding the CRIAC, see “CUSTOMER BASE, RATES AND CHARGES – Components of Retail Rates and Charges – *Clean Rivers Impervious Area Charge.*”

Pay-As-You-Go Funds. The Authority expects to finance approximately \$938 million, or 23.8%, of the CIP with pay-as-you-go funds. Revenues in excess of those required to meet operating and maintenance expenses, to make debt service payments and to fund reserves can be used, at the discretion of the Authority, to fund a portion of the CIP. The projected financial operations of the Authority assume that such amounts are used as a source of funds for the CIP. In addition, the Authority established a separate line item in its operating budget beginning in Fiscal Year 2015 to provide funds for additional cash-financed capital construction, the defeasance of debt, or other uses at the discretion of the Authority. The projected financial operations of the Authority assume that the amounts in this line item are also used a source of funds for the CIP. The Board has also adopted a policy that authorizes any funds in excess of the operations and maintenance reserve and any other significant one-time cash infusions to be used to finance the CIP or to pay off higher cost debt. The projected financial operations of the Authority assume at this time that no funds are available from these potential sources.

Federal and Other Grants. The Authority expects to finance approximately \$246 million, or 6.2%, of the CIP with federal and other grants. The Authority receives annual grants from the federal government under the Clean Water Act and Safe Drinking Water Act for a variety of projects at Blue Plains and for the Water System to improve drinking water supplies and wastewater treatment. Unlike most public water or wastewater utilities, the Authority receives appropriations in the form of grants and not as loans pursuant to a State Revolving Fund program. Under the terms of these grants, payments to the Authority are made on a reimbursable basis, with unclaimed appropriations remaining available to be obligated in subsequent years. In addition, the Authority has received a special Congressional appropriation for improvements to the combined sewer system. Under the Wet Weather Water Quality Act of 2000 that codified the EPA’s 1994 National CSO Policy, the U.S. Congress authorized grant funding for the DC Clean Rivers Project. These appropriations require a 50% match from the Authority. As of September 30, 2017, the Authority had received \$238.8 million in grant funding for the DC Clean Rivers Project. The Authority also expects to be reimbursed by the District for certain capital investments.

Wholesale Customer Contributions. The Authority expects to finance approximately \$727 million, or 18.5%, of the CIP with wholesale customer contributions. Under the terms of the 2012 IMA, the Authority’s wholesale customers share the cost of operating, maintaining and making capital improvements at Blue Plains. A separate agreement with the Loudoun County Sanitation Authority (“LCSA”) allows the Authority to recoup capital and operating costs from the LCSA on the same basis as provided for in the 2012 IMA. Contribution levels are governed by the agreements that provide for the pro-rata reimbursement for capital improvements based on the capacity allocated to each wholesale customer. As of the date of this Official Statement, all wholesale customers were current on their capital contributions payments.

Interest Income on Bond Proceeds. The Authority estimates that \$17 million in interest income, or 0.4%, will be available to finance the CIP. Subject to Federal tax law requirements relating to use of the proceeds of tax-exempt bonds, the Authority uses interest earned on the proceeds of its bonds as a source of funds for the CIP. This interest income

is treated as non-operating revenue of the Authority that is available to pay debt service, if needed. The use of this income for capital funding purposes represents another source of pay-as-you-go capital.

Cost Estimates

Although actual bid prices for recent construction projects, on average, have been slightly below the engineering cost estimates for such projects, the costs shown in the CIP reflect the Authority's practice of increasing construction cost estimates by 3% annually to the midpoint of construction. There are no assurances that the actual rate of inflation in construction costs will not increase significantly above the assumed rate of inflation or that such increases will not have an adverse impact on the financial operations of the Authority.

An additional consideration regarding the construction cost estimates is the value of change orders relative to the total cost of construction work performed. The cost of construction-related change orders executed by the Authority for contracts closed during the five-year period from Fiscal Year 2013 through Fiscal Year 2017 was \$37,699,477, or 4% of the total original value of the contracts of \$838,088,787 for this period. The relatively low value of change orders compared to the total construction costs incurred is an indication that project designs are thorough and that projects are being effectively managed during construction."

CUSTOMER BASE, RATES AND CHARGES

Customer Categories and Accounts

As of September 30, 2017, the System had 127,284 active, metered water and wastewater accounts (39 of which are accounts of the Authority and 2 of which are accounts of the Aqueduct). Except for wholesale accounts, the majority of accounts receive both water and wastewater service. The Authority's customer accounts are divided into three categories: (i) residential, multifamily and commercial, (ii) governmental and (iii) wholesale. The number of accounts in each of the categories as of September 30, 2017 is set forth in Table 6.

Table 6. Customer Categories and Accounts

Customer Category	Number of Accounts	% of Total Operating Revenue
Residential, Multifamily, Commercial	124,610	62%
Governmental (Federal, District and D.C. Housing Authority) ¹	2,667	17
Wholesale	7	16
Total	127,284	95%²

¹ The D.C. Housing Authority is the only District agency that is billed separately. The remaining District agencies are billed as part of a composite bill for the government.

² The remaining 5% of the Authority's operating revenue comes from capital contributions, interest income, and other revenue.

Source: Authority records and the Authority's CAFR.

Customer Base

The Authority's customer and revenue base is diverse, consisting of a wide variety of residential, commercial and governmental customers, as well as wholesale wastewater customers. In Fiscal Year 2017, the residential, commercial and multifamily customer revenue represented approximately 62% of total operating revenue.

The commercial portion of the customer base includes a variety of uses, including nationally recognized universities and regional hospitals, commercial office space with tenants that are national associations, lobbying firms, major law firms and large hotels. Table 7 reflects the Authority's ten largest commercial customer accounts in Fiscal Year 2017, which in aggregate represented 2.51% of total operating revenues.

Table 7. Ten Largest Commercial Customers (2017)

Customer	Revenue	% of Total Operating Revenues
Howard University	\$3,957,007	0.62%
George Washington University	2,477,970	0.39
William C. Smith & Co.	2,226,722	0.35
Washington Hospital Center	1,624,588	0.25
Georgetown University	1,438,247	0.22
Metropolitan Washington Airports Authority	1,068,877	0.17
Amtrak	983,244	0.15
Georgetown University Hospital	808,884	0.13
Medstar-Georgetown Medical Center	807,540	0.13
American University	750,235	0.12
Total	\$16,143,294	2.51%

Source: Authority records.

Table 8 reflects the Authority’s ten largest government customers in Fiscal Year 2017, which in aggregate represented 5.93% of total operating revenues.

Table 8. Ten Largest Government Customers (2017)

Customer	Revenue	% of Total Operating Revenues
D.C. Housing Authority	\$7,492,820	1.16%
U.S. General Services Administration	7,092,342	1.10
National Park Service	4,621,035	0.72
U.S. Congress	4,597,331	0.71
Smithsonian Institution	3,635,763	0.57
Bolling Air Force Base	3,115,393	0.48
D.C. Board of Education	2,497,561	0.39
Federal Naval Research Lab	1,853,214	0.29
Department of the Navy	1,662,225	0.26
D.C. Recreation and Parks	1,604,350	0.25
Total	\$38,172,034	5.93%

Source: Authority records.

Customer Demand

Table 9 shows the average percentage of annual water consumption by customer category from Fiscal Year 2013 through Fiscal Year 2017. The results illustrate the diversification of the Authority’s customer base.

Table 9. Average Annual Consumption By Customer Category
Fiscal Years 2013 – 2017
(millions of Ccf)

Customer	Average Annual Consumption	% of Total Consumption
Residential Single-Family	7.40	21.29%
Commercial	12.94	37.23
Residential Multi-Family	8.05	23.15
D. C. Municipal Government	0.95	2.75
Federal Government	4.65	13.37
D. C. Housing Authority	0.77	2.22
Total Consumption	34.77	100.00%

Source: Authority Records

Table 10 shows projected annual consumption for the Authority's customer categories for Fiscal Years 2018 through 2022. The Authority's use of the AMR program, including the replacement and repair of meters, significantly reduces estimated meter readings and improves the reporting of actual consumption.

Table 10. Projected Annual Consumption by Major Customer Category^{1,2}
Fiscal Years ending September 30
(Millions of Ccf)

	2018	2019	2020	2021	2022
Residential Single-Family	7.04	6.97	6.90	6.83	6.76
Commercial ³	12.02	11.90	11.78	11.67	11.55
Residential Multi-Family	8.80	8.71	8.63	8.54	8.45
D. C. Municipal Government ⁴	0.98	0.97	0.96	0.95	0.94
Federal Government	4.29	4.25	4.21	4.17	4.12
D.C. Housing Authority	0.76	0.75	0.74	0.74	0.73
Total Consumption	33.89	33.56	33.22	32.89	32.56

Source: Amawalk

¹ Totals may not add due to rounding.

² Total water consumption in Fiscal Years 2019 - 2022 reflects the assumption of a 1% annual decline.

³ Reflects consumption at commercial facilities and selected facilities at Howard University and Soldiers' Home.

⁴ Reflects consumption at District of Columbia Government facilities and the Authority facilities.

Some fluctuation in consumption can occur in a given year due to variations in weather conditions and other factors such as billing adjustments. Consumption declined in Fiscal Year 2013 and Fiscal Year 2014 by 5.7% and 3.6%, respectively. About 70% of the total decline in Fiscal Years 2013 and 2014 was attributable to reductions in use by the federal government due to federal initiatives to reduce water use, billing adjustments and other factors. In Fiscal Year 2015, total consumption increased by 5.0% with nearly all of that increase attributable to the federal government. In Fiscal Year 2016 and 2017, total consumption decreased by 1.7% each year. See “– Rate-Setting Authority” for additional information.

The Authority anticipates that consumption will total 33.89 million Ccf in Fiscal Year 2018, representing a decrease of 1.4% from the prior year. The Authority assumes that long-term total water consumption will decline at the rate of 1% per year beginning in Fiscal Year 2019, recognizing that weather conditions and other factors may affect water demand in a given year. The expectation that future sales will decline is consistent with recent trends in the Washington, D.C. region as well as the projected sales in other large cities in the northeast United States.

There is some risk that consumption could be lower than anticipated during the Projection Period. The risk is mitigated to some extent in that revenues from the federal government are determined in advance and then subject to a true-up after the year is completed. For example, the significant reduction in actual federal consumption in Fiscal Year 2014 (compared to the budgeted consumption that was billed for Fiscal Year 2014) is reflected in the reconciliation credit to the federal government for Fiscal Year 2017. In addition, the consumption risk is mitigated to a significant extent by retail revenue that is not consumption-related: customer receipts from the meter charge, the Water System Replacement Fee and the CRIAC, are unaffected by changes in the quantity of customer water use. Consumption-based retail water and sewer revenues within the District are estimated to comprise about 56% of total revenues (excluding PILOT/ROW fees) in Fiscal Years 2018 through 2022. The Authority evaluates its water consumption projections annually in connection with its budget preparations and more frequently if the need arises.

Rate-Setting Authority

Retail Rates, Fees and Charges

The Board establishes the Authority's rates, fees and charges. Only the six Board members representing the District vote on setting retail water and wastewater rates and fees for the retail customers who are customers within the District. No approvals from federal or local officials are required in order to set rates.

The Authority adopted several changes to its retail rate structure, which went into effect in Fiscal Year 2016. These changes were 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 that discount core consumption and to fund the Authority's water main replacement program by establishing the monthly, fixed Water System Replacement Fee (the "Water System Replacement Fee"). For a summary of the Authority's rates, fees and charges, see "CUSTOMER BASE, RATES AND CHARGES – Components of Retail Rates and Charges" and "Historical and Projected Retail Rates."

Historically, the Authority adopted its budgets and its retail rates and charges on an annual basis. The budget process is expected to remain the same during the Projection Period: budgeted revenues, operating expenses and CIP expenditures will be adopted annually by the Board. Beginning with Fiscal Year 2017, the Authority started setting retail rates and charges for a two-year period – i.e., in calendar year 2016 the Board adopted (i) rates and charges effective October 1, 2016 (Fiscal Year 2017) and (ii) rates and charges to be effective October 1, 2017 (Fiscal Year 2018). Similarly, in calendar year 2018 the Board adopted (i) rates and charges to be effective October 1, 2018 (Fiscal Year 2019) and (ii) rates and charges to be effective October 1, 2019 (Fiscal Year 2020). The benefits of the multi-year rate include: greater revenue certainty, increased budget discipline, and better alignment between revenues and expenditures. The retail rates and charges are expected to change in each year. See "– Historical and Projected Retail Rates." As is currently the case, if in any year the Authority determines that revenues are materially less than expectations and/or debt service or operating expenses are materially higher than budgeted, the Authority has the ability to adjust its retail rates and charges during the fiscal year. Historically, there has been no need for the Authority to make such changes during a fiscal year.

The Authority receives annual grant funding under the Clean Water Act which requires the maintenance of wastewater charges sufficient to defray costs of operation, maintenance and replacement and surcharges for industrial discharges into the System's sewers levied in conformity with formulas set forth in the Clean Water Act and regulations thereunder. See "CAPITAL IMPROVEMENT PROGRAM - CIP Financing Sources."

Federal Government Charges

The Authority's forecasted water and wastewater charges for the federal government are prepared and included in the federal budget 18 months in advance of the commencement of the Authority's Fiscal Year based on the prevailing consumption estimates, projected retail rate increases as included in the current ten-year financial plan and adjustments for prior year true-ups. The federal government budgets for and pays its bills quarterly directly from the U.S. Treasury based on the estimates provided by the Authority in advance. Under the current billing process, any differences between the projected and the actual charges are netted against a future year's billing. Federal government revenues are expected to constitute approximately 6.9% of the Authority's total annual revenues during Fiscal Year 2018 through Fiscal Year 2022 (excluding PILOT/ROW fees).

Water consumption billed to Federal accounts in recent years has shown significant year to year fluctuation and an overall reduction compared to prior years. The Authority has adjusted its future forecasts for federal revenue primarily due to four factors:

- i. An executive order signed by the President created a requirement for federal agencies to reduce potable water and landscaping use water by 2% annually through conservation measures until 2020;

Authority conversations and investigations with federal property managers show that significant progress is being made toward this goal through plumbing fixture replacement.

- ii. In the District, the Telework Enhancement Act (the “Telework Act”) has resulted in a significant shift to employees working from home, reducing water used at the workplace, and, pursuant to the Telework Act, GSA has strategically reduced the number of buildings it owns and operates in the District in favor of placing employees in shared rental spaces. In the latter case, the water reduction observed in federal buildings is partially made up in the commercial customer billing of the Authority.
- iii. There have been significant adjustments made to federal bills as a result of property sales and transfers between the federal and District governments.
- iv. The Authority accelerated a testing and calibration program on large capacity meters installed at federal properties and observed that some of the meters had degraded and were measuring less water than was actually being consumed. Where possible, the Authority is retroactively billing for the difference in consumption.

Wholesale Customer Charges

The Authority provides wholesale wastewater treatment services to User Jurisdictions at Blue Plains. Each wholesale customer’s share of operating costs at Blue Plains is recovered in accordance with the Blue Plains Intermunicipal Agreement of 1985, the 2012 IMA, the Potomac Interceptor Agreements and the Loudoun County Sanitation Authority Agreement (as discussed in more detail in “THE SYSTEM – The Wastewater System”), and is based on actual costs of operating and maintaining the plant and the collection facilities, prorated to each User Jurisdiction based on its respective actual share of wastewater flows. A User Jurisdiction’s share of capital costs is based on its share of capacity allocations in the plant. Both operating and capital payments are made on a quarterly basis. Wholesale customer revenues are expected to constitute approximately 12.2% of the Authority’s total annual revenues during Fiscal Year 2018 through Fiscal Year 2022 (excluding PILOT/ROW fees).

Wholesale customers are billed based on the adopted budget for that Fiscal Year. Capital-related charges are billed quarterly with payments due on the 15th day of the second month following the end of the quarter. The operating and maintenance-related charges are billed annually by mid-October and payments are due each November, February, May and August. Following each Fiscal Year, the Authority prepares a reconciliation that determines the actual costs and each wholesale customer’s appropriate share of such costs. Adjustments are then billed or credited to the wholesale customers in the first quarter of the subsequent Fiscal Year.

Components of Retail Rates and Charges

Water and Wastewater Charges

The Authority recovers the costs of operations, maintenance and debt service through retail rates and fees, wholesale customer charges and other miscellaneous non-operating income such as interest earnings. The primary retail rates and fees are as follows:

- i. **Water and Wastewater Consumption Rates.** These rates are based on metered water usage and are stated in terms of hundred cubic feet (“Ccf”). Through Fiscal Year 2015, each of the Authority’s three customer classes (i.e., Residential; Multi-Family; and Non-Residential) were charged the same consumption rates. The Authority retained Raftelis Financial Consultants, Inc. (“RFC”) to analyze the allocation of costs between the water and wastewater rates, as well as the peak demand factors of its various customer classes, and to prepare the Fiscal Year 2015 Cost of Service Study (“2015 COS Study”). Based on the results of the 2015 COS Study, the Authority’s management recommended a restructuring of its rates, charges and fees to the Board to include water rate classes for Residential, Multi-Family and Non-Residential customers. Sewer rates remain uniform for all customers. On February 5, 2015, the Board approved a resolution adopting this new rate structure which became effective October 1, 2015, for Fiscal Year 2016. Water and wastewater consumption rates increased by 5.0% per year in Fiscal Years 2017 and 2018 compared to Fiscal Year 2016.

The 2018 Cost of Service Study (“2018 COS Study”) prepared by RFC has recommended no changes to the rate structure and water rate classes but has recommended decreases in water rates, an increase to the sewer rate and a reduction in the CRIAC in Fiscal Year 2019 to better align rates and revenues with the cost of providing service.

- ii. Customer Metering Fee. The Authority assesses a metering fee to recover costs associated with installing, operating and maintaining meters and the AMR system. The metering fee is charged as a separate line item on retail customer bills and varies by meter size. The metering fee will remain unchanged in Fiscal Years 2019 and 2020.
- iii. Water System Replacement Fee. The Authority modified its rate structure and implemented the meter-based Water System Replacement Fee in Fiscal Year 2016 in order to recover the cost of the 1% renewal and replacement program for water service lines. The Water System Replacement Fee will remain unchanged in Fiscal Years 2019 and 2020. It is anticipated that the Water System Replacement Fee will generate \$39.7 million in revenue per year from Fiscal Years 2018 through 2022.

Clean Rivers Impervious Area Charge

In Fiscal Year 2009, the Authority approved the development and implementation of the CRIAC to recover the costs of the DC Clean Rivers Project, mandated by the EPA Region III pursuant to the 2005 LTCP Consent Decree. The DC Clean Rivers Project will be implemented over a 25-year period at a total cost of \$2.6 billion. See “THE SYSTEM – Wastewater Regulation and Permits – NPDES Permit.” For an explanation of the different term contemplated for the DC Clean Rivers Project in the CIP and under the 2005 LTCP Consent Decree, see “CAPITAL IMPROVEMENT PLAN – Categories of CIP Projects – Combined Sewer Overflow Projects.” Prior to the implementation of the CRIAC, the DC Clean Rivers Project cost was bundled in the wastewater rate based on the amount of water consumed.

The CRIAC is based on the amount of impervious area on a property, rather than on the amount of water consumption, which is a more equitable method of recovering the DC Clean Rivers Project costs. It allows the Authority to expand its customer base by charging all properties that generate stormwater, including those that may not use water (e.g., parking lots). An impervious area is a man-made surface that cannot be easily penetrated by water, such as a rooftop, a paved driveway, a patio, a swimming pool or a parking lot that impedes the percolation of water into the subsoil and plant growth. The Authority maintains a database in which it classifies each parcel located within the District as pervious or impervious. This database and the classifications therein provide the basis for the District’s billing of the CRIAC.

All residential customers are charged Equivalent Residential Units (“ERUs”) based upon six tiers that reflect the amount of impervious surface area on each residential lot. The tiers and the number of properties within each tier are shown as of September 30, 2017 in Table 11.

Table 11. Equivalent Residential Unit Tiers

Tiers	Size of Impervious Area (square feet)	Equivalent Residential Unit	No. of Properties (as of September 30, 2017)
Tier 1	100 – 600	0.6	19,947
Tier 2	700 – 2,000	1.0	77,658
Tier 3	2,100 – 3,000	2.4	7,307
Tier 4	3,100 – 7,000	3.8	2,754
Tier 5	7,100 – 11,000	8.6	174
Tier 6	11,100 and more	13.5	62

Source: Authority records.

The CRIAC is applied to all lots, parcels, properties and private streets throughout the District that are greater than 100 square feet, except for District or federally owned rights-of-way. The CRIAC is added to the customer’s metered service bill and billed monthly unless the property is impervious only and has no other metered water or wastewater service. The CRIAC will be reviewed regularly and adjusted as appropriate by the Board. Effective October 1, 2018, the CRIAC rate is expected to decrease to \$23.00 per ERU for Fiscal Year 2019. The decrease in CRIAC rate is part of the rate adjustments proposed as result of the 2018 COS Study. The CRIAC rate is expected to increase to \$25.58 per ERU for Fiscal Year 2020, effective October 1, 2019. Further increases in the CRIAC are expected in Fiscal Years 2021 and 2022.

The Water and Sewer Authority Equitable Ratemaking Amendment Act of 2008 (the “2008 Amendment Act”), approved by the Council in 2008, and signed by the Mayor of the District on January 23, 2009, amended the Act to authorize the Authority’s CEO to restrict combined sewer flow into the District from Maryland and Virginia and to require the Authority to, among other things, offer financial assistance programs to mitigate the impact of any increases in retail

water and sewer rates on low-income residents of the District, including a low-impact design incentive program. The 2008 Amendment Act also amended the District of Columbia Public Works Act of 1954 to broaden the bases for the determination of sanitary sewer service charges to include impervious surface area and to provide for an appeal process for the assessment of an impervious surface fee.

The 2008 Amendment Act requires the Authority, together with the DOEE, to establish an incentive program to institute certain eligible best management practices that reduce the amount of stormwater runoff generated from a property. In 2013, the Authority created the CRIAC Incentive Program, which provides a 4% maximum incentive credit, with a not-to-exceed annual budgeted allowance of \$500,000. The actual credit amount is calculated based upon a formula provided by the DOEE. The Authority's CRIAC revenue projections take into consideration the not-to-exceed annual budgeted allowance of \$500,000 in CRIAC credits.

Clean River IAC Credit

In Fiscal Year 2016, the Board asked management to evaluate and propose recommendations for expansion of the Customer Assistance Program (CAP) to include fees assessed for the CRIAC. The staff evaluated the three options for CRIAC credit: (i) dollar credit, (ii) ERU credit, and (iii) percent of CRIAC credit (25%, 50%, 75%). Based on the detailed analysis, the management made recommendations to the Board to expand the CAP to low-income customers to include a CRIAC credit in the monthly bills. On December 1, 2016 the Board adopted the expansion of the CAP for eligible single-family residential accounts and individually metered accounts to include a fifty percent (50%) credit of the monthly billed CRIAC. The CRIAC credit was implemented in Fiscal Year 2017.

PILOT/Right of Way Occupancy Fee

These fees recover the cost of the PILOT and Right of Way fees (collectively, "PILOT/ROW Fee"), which are charges levied by the District for payments in lieu of taxes and occupancy or use of public spaces or rights of way including that used by the Authority for its underground infrastructure. The Authority passes the PILOT/ROW Fee through to retail customers based on metered water consumption as a separate line item on the bills. Effective October 1, 2016 (i.e., for Fiscal Year 2017), the Authority's PILOT/ROW Fee was \$0.65 per Ccf. The PILOT/ROW Fee increased to \$0.67 per Ccf effective October 1, 2017 (Fiscal Year 2018) and is expected to increase to \$0.68 per Ccf effective October 1, 2018 (Fiscal Year 2019).

Stormwater Fee

The Authority's retail water and wastewater bills also include a stormwater fee levied on behalf of the District government. The stormwater fee is charged as a separate line item on retail customer bills. Although the Authority no longer administers the program, it will continue to be reimbursed by the District for any stormwater-related expenditure. The DOEE has rate-setting authority for stormwater services provided by the District and the Authority expects to work collaboratively with the DOEE to set future rates. See "THE AUTHORITY – Relationship with the District." Effective October 1, 2016 (i.e., for Fiscal Year 2017), the stormwater fee charged to retail customers was \$2.67 per ERU, which is the current rate. The stormwater fee is expected to remain the same for Fiscal Years 2019 and 2020.

Historical and Projected Retail Rates

The Board approves the Authority's retail water and wastewater rates as part of the ten-year financial plan, which includes annual rate increases, in line with the Board's policy of implementing rate increases in a gradual and predictable manner. The class-based water volumetric rates for Residential, Multi-family, and Non-residential customers effective from October 1, 2017 (Fiscal Year 2018) increased by 5.0% over the Fiscal Year 2017 rates. Rates in Fiscal Year 2019 will increase by 13.5% as part of rate adjustments recommended by the 2018 COS Study. For Fiscal Years 2020 through 2022, the Authority's financial plan projects retail water and wastewater rate increases of 5.0% per year.

Table 12 sets forth historical water and wastewater rates and the CRIAC of the Authority and Table 13 sets forth adopted and projected water consumption and sewer usage rates of the Authority for Fiscal Years 2018 through 2022. The revenue resulting from the CRIAC reduces the amount of revenue that must be raised through wastewater charges, resulting in a lower wastewater rate.

Federal government customers in Virginia pay the Arlington County retail rate, which, since May 1, 2015, is \$3.15 per Ccf for water. Federal government customers in Maryland pay according to the WSSC rates, which include a fixed charge and a consumption-based charge that increases with higher levels of usage.

Table 12. Historical Water and Wastewater Retail Rates and Charges¹
 (\$ per Ccf for Water and Sewer, Other Charges are \$ Per Unit as Noted)

Fiscal Year	Water Consumption Rate	Sewer Usage Rate	Combined Rate	Water and Sewer Percent Increase	CRIAC Rate (Per ERU)	Meter Charge (Per 5/8" Meter) ³	Water System Replacement Fee (Per 5/8" Meter) ³
2013	3.42	4.18	7.60	5.5%	9.57	3.86	
2014	3.61	4.41	8.02	5.5	11.85	3.86	
2015	3.88	4.74	8.62	7.5	16.75	3.86	
2016 ²							
Residential – 0-4 Ccf	3.08	5.44	8.52	6.5%	20.30	3.86	6.30
Residential - >4 Ccf	3.87	5.44	9.31				
Multi-Family	3.45	5.44	8.89				
Non-Residential	3.99	5.44	9.43				
2017 ²							
Residential – 0-4 Ccf	3.23	5.71	8.94	5.0%	22.24	3.86	6.30
Residential - >4 Ccf	4.06	5.71	9.77				
Multi-Family	3.62	5.71	9.33				
Non-Residential	4.19	5.71	9.90				

¹ Rates and charges are billed monthly.

² Percent increase reflects the overall average increase for all customers; the increases for individual customers vary by customer class and consumption.

³ The Meter Charge and the Water System Replacement Fee as shown reflect a customer with a 5/8" meter. The Charge and the Fee vary by the size of the meter.

Source: Authority records.

Table 13. Current and Projected Retail Rates and Charges¹
 (\$ per Ccf for Water and Sewer, Other Charges are \$ Per Unit as Noted)

	Units	Current	Proposed ²		Projected ²	
		2018	2019	2020	2021	2022
Water Rates						
Residential - 0-4 Ccf	Ccf	3.39	2.91	3.06	3.21	3.37
Residential - >4 Ccf	Ccf	4.26	3.90	4.10	4.31	4.53
Multi-Family	Ccf	3.80	3.37	3.54	3.72	3.91
Non-Residential	Ccf	4.40	4.05	4.25	4.46	4.68
Sewer Rates	Ccf	6.00	7.75	8.14	8.55	8.98
Water & Sewer % Change ^{3,4}	%	5.0%	13.0%	5.0%	5.0%	5.0%
CRIAC	ERU	25.18	23.00	25.58	29.07	31.33
Meter Charge ⁵	5/8" Meter	3.86	3.86	3.86	3.86	3.86
Water System Replacement Fee ⁵	5/8" Meter	6.30	6.30	6.30	6.30	6.30

¹ Rates and charges are billed monthly.

² Rates for Fiscal Years 2019 through 2022 are projected and subject to change.

³ Water and sewer percent change reflects the overall average increase for all customers; the increases for individual customers will vary by customer class and consumption.

⁴ In Fiscal Year 2019, the proposed decrease in water rates and the CRIAC and the increase in sewer rates is based on the adjustments recommended by the 2018 COS Study. See "Components of Retail Rates and Charges". The net increase in total charges (i.e. water, sewer, CRIAC, Meter Charge, and Water System Replacement Fee) relative to Fiscal Year 2018 for an average residential customer is projected to be 5.9%.

⁵ The Meter Charge and the Water System Replacement Fee as shown reflect a customer with a 5.8 inch meter. The Charge and the Fee vary by the size of the meter.

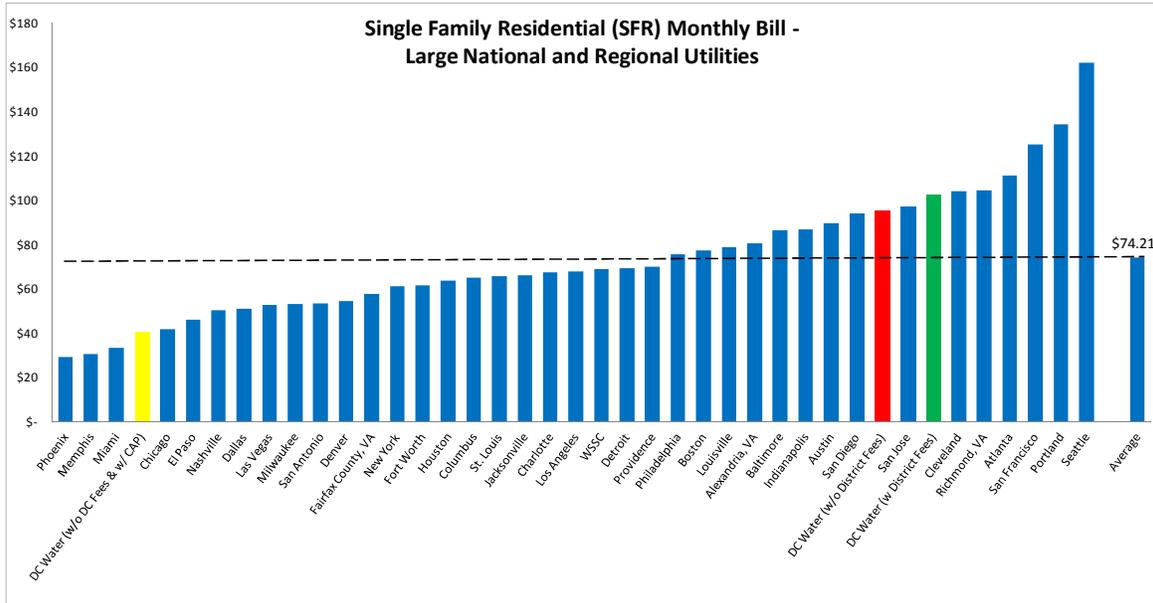
Source: Authority Records.

Retail Rate Comparison

The Authority's retail rates are comparable to those of other utilities in the metropolitan Washington, D.C., region and other similar utilities in the eastern United States and nationally. Table 14 compares the Authority's combined water, wastewater and impervious area residential charges to these utilities. The table reflects the Authority's Fiscal Year 2018 rate and fee charges, while other utilities rates are as of March 1, 2018. The Authority's Fiscal Year 2018 rate and

fee charges are shown both with and without the pass-through of the District’s PILOT/ROW Fee in the amount of \$0.67 per Ccf, and the DOEE residential stormwater rate of \$2.67 per ERU per month.

Table 14. Comparison of Average Authority Water and Wastewater Bill to Bills of Other Utilities^{1,2}

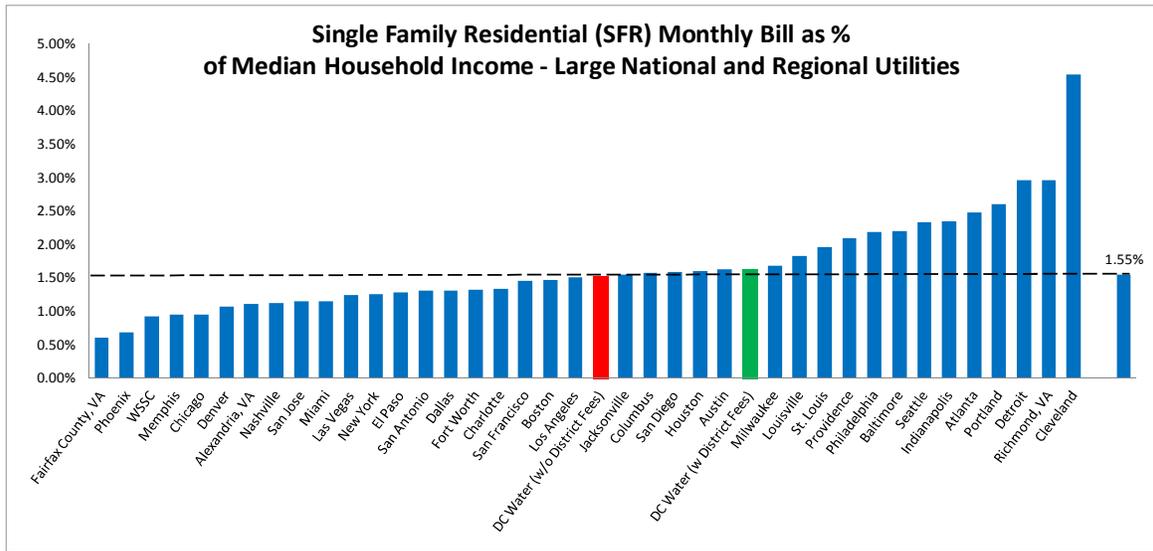


¹ Assumes average residential consumption of 6.20 Ccf, or 4,638 gallons, per month.
² User charges are based upon information provided by the identified cities and standardized assumptions regarding water consumption, wastewater discharge, stormwater drainage area and other factors. Actual charges in each city will vary in accordance with local usage patterns. There may be significant differences in typical single family residential usage among cities which results in charges that are different than shown above. Some cities bill for sewer use on the basis of winter water consumption which could affect sewer billings if a customer's use was not uniform throughout the year. Sewer charges include stormwater charges in those cities where separate stormwater fees are assessed. Some cities use property tax revenue or other revenues to pay for part of the cost of water, wastewater or stormwater services. In such situations, the user charges will not reflect the full cost of water, wastewater or stormwater services. Some cities impose charges that become part of the cost of water/sewer services. Water/sewer bills in some cities are subject to sales taxes, gross receipts taxes and/or other fees. Affordability programs are used by many cities to reduce the annual charges to eligible customers.
³ Charges for all cities reflect rate schedules in effect on March 1, 2018. The Authority’s charges with District fees include the PILOT/ROW fee totaling \$0.67 per Ccf and the DOEE residential stormwater rate of \$2.67 per ERU per month.

Source: Amawalk

The median income in the District is competitive with the median income in many other jurisdictions. Table 15 illustrates the Authority’s charges for a single family residential customer as a percentage of median income compared to similar data for other water and wastewater utilities.

Table 15. Comparison of Average Authority Water and Wastewater Bill (As Percentage of Median Income) to Bills of Other Utilities^{1,2}



¹ Assumes average residential consumption of 6.20 Ccf, or 4,638 gallons, per month.

² Charges for all cities reflect rate schedules in effect on March 1, 2018. The Authority’s charges with District fees include the PILOT/ROW fee totaling \$0.67 per Ccf and the DOEE residential stormwater rate of \$2.67 per ERU per month.

Source: Amawalk

Collections

The Authority has implemented policies and business practices intended to optimize the collection of customer billings. Measures are taken, including cross checks with property records, to ensure that all users of the Authority’s system are being billed. With the implementation of automated meter reading (AMR), the Authority can access customer usage data at any time and can alert customers to apparent leaks promptly. In September 2013, the Authority achieved the lowest 90-day receivable balance in the Authority’s history at \$4.9 million. During the last five Fiscal Years, the Authority’s 90-day receivable balance has ranged from \$4.9 to \$8.4 million, even with multiple rate increases that doubled the typical residential bill, with a receivable balance, as a percentage of operating revenues, of just 1.6%. This is the result of a comprehensive strategy that integrates several consumer services functions along with an aggressive customer contact process that addresses collections issues early when outstanding balances are within the range of customers’ ability to pay, improved lien processing for delinquent accounts, and enhances coordination efforts with other District agencies.

The Authority’s collection program includes: (i) assessing customers a 10% late fee if their bill is not paid on day 31 after the date of billing and sending customers a friendly reminder notice; (ii) placing a call to the customer using an automatic notification call program on day 34; (iii) sending the customer notice of intent to disconnect service on day 39 (which, in accordance with District laws and regulations gives customer 15 days to pay the delinquent bill and maintain service); (iv) mailing to the owner of the property an intent to place a lien on the property on day 65 (which gives the owner 10 additional days to pay the bill before a lien is placed on their property) and imposing an additional 1% penalty per month on all delinquent balances after 60 days; (v) placing a call to the customer on day 67 to inform him/her of the Authority’s intent to place a lien on the property if the delinquent bill is not paid; and (vi) placing a lien on the property on day 80. The lien becomes a part of the public record and appears on the owner’s credit report and adversely affects their FICO score. The Authority will remove a lien only if the account balance is paid in full, and/or if the lien was placed in error. Once paid, the lien is removed and reflected as “satisfied” on the credit report but the customer’s FICO score is not changed unless the customer contacts the credit bureau. The Authority’s liens are continuous, which entitles the Authority to collect the current outstanding balance owed by a customer regardless of the balance at the time the lien was placed.

The Authority utilizes collection analysts who make calls to owners of delinquent accounts with a focus on the top 250 delinquent accounts. The Authority also takes legal action to have delinquent multi-family apartment building owners placed in receivership. This may result in the Authority receiving a percentage of the tenants’ rent that is collected by a court-appointed Receiver before the owner can collect any rent. The account stays in receivership until paid in full.

After all efforts to collect have been exhausted, and as a last resort, the Authority will disconnect service for non-payment and not restore it until the delinquent bill is paid. The Automated Meter Reading System (AMR) allows the Authority to know if water is being used after service has been disconnected due to non-payment. If this occurs, the meter will be removed or locked and service will not be restored until the delinquent amount, plus any applicable fees, are paid in full.

Table 16 shows the cumulative retail (including commercial) customer balances that were delinquent more than 90 days. There is one government delinquency to report, which is related to DC Government/Municipal property.

Table 16. Retail Customer Cumulative Delinquent Balances
(\$ in millions)

<u>As of September 30,</u>	<u>Amount¹</u>	<u>Percent of Operating Revenue</u>
2013	\$4.9	1.1%
2014	5.3	1.1
2015	6.5	1.2
2016	7.7	1.3
2017	8.4	1.4

¹ Amounts shown are as of the end of each Fiscal Year for amounts delinquent more than 90 days and do not include previously disputed amounts for Howard University (now resolved) and the Soldiers' Home discussed below.

Source: Authority records.

Special Accounts

[The Authority has historically provided some U.S. Soldiers and Airmen's Home ("Soldiers' Home") accounts with free water service in exchange for the use of certain parcels of Soldiers' Home property to maintain a reservoir that provides water to the District. The Authority contends that the Soldiers' Home is required to pay for sewer service and impervious area fees, as well as water services for certain accounts. The parties have been in negotiation in an effort to resolve the issues surrounding this historically exempt account. There are no other exempt accounts and the Authority does not anticipate the addition of any new exempted accounts.]

Customer Assistance Programs

The Authority sponsors two programs to assist low income customers in paying their water bills: Customer Assistance Program ("CAP") and Serving People by Lending A Supporting Hand ("S.P.L.A.S.H.").

CAP. The Authority implemented the CAP in 2001 providing a discount of up to 4 Ccf per month of water service for single family residential homeowners that meet income eligibility guidelines. The CAP has been enhanced in subsequent years, as summarized below. Enhancements were effective either on the first day of the Fiscal year or during the year shown.

<u>Fiscal Year*</u>	<u>CAP Enhancement</u>
2004	Include tenants who meet the financial eligibility requirements and whose primary residence is separately metered by the Authority
2009	Provide a discount of 4 Ccf per month of sewer services
2011	Provide a discount of the first 4 Ccf of PILOT/ROW fees.
2016	Provide a 100% discount of the new Water System Replacement Fee (WSRF)
2017	Provide a 50% credit on the billed Clean Rivers Impervious Area Charge (CRIAC).

Table 17 sets forth the number of customers assisted and the total discount provided through the CAP discount since Fiscal Year 2014. The projected revenues of the Authority take into consideration the discounts provided to low-income customers under the CAP.

Table 17. Customer Assistance Program Discount

Fiscal Year	Customers Assisted	Water/Sewer PILOT/ROW (\$)	WSRF Credit (\$)	CRIAC Credit (\$)	Total Amount
2014	4,583	1,129,776	-	-	1,129,776
2015	4,498	1,207,986	-	-	1,207,986
2016	4,379	808,797	185,013	-	993,810
2017	4,244	810,295	195,328	129,674	1,135,297

¹ The CAP data for 2016 and 2017 reflect partial-year benefits for the WSRF and CRIAC, as they became effective on May 1, 2017. Benefits provided in Fiscal Year 2018 and future Fiscal Years will include the full effect of the WSRF discount and the CRIAC credit.

Source: Authority records.

S.P.L.A.S.H. Through the S.P.L.A.S.H. program, the Authority offers assistance to families in need so that they can receive critical water services. S.P.L.A.S.H. is funded solely by contributions from the community, customers and from the Authority employees. The Authority has redesigned its water and sewer bills to make it easier for its customers to make contributions to S.P.L.A.S.H. The Authority pays all administrative costs of this program, which is administered directly by the Greater Washington Urban League (GWUL). All contributions are deposited in a bank account from which the (GWUL) makes payments on behalf of eligible customers. Every dollar received by the Authority is distributed to eligible customers. Table 18 shows the number of customers assisted by the Authority and the total amount distributed through the S.P.L.A.S.H. program since Fiscal Year 2014.

Table 18. S.P.L.A.S.H Program Distribution

As of September 30,	Participating Customers	S.P.L.A.S.H Value
2014	309	\$100,851
2015	351	103,150
2016	309	104,269
2017	374	126,492

Source: Authority records.

Customer Service Operations

The Department of Customer Services reports to the Assistant General Manager of Customer Care and Operations and is responsible for meter installations, meter reading, meter testing, billing and collections. The Authority continuously evaluates its customer service offerings to ensure that customers receive the best possible service.

FINANCIAL OPERATIONS

Historical Financial Operations

The Authority derives its revenues primarily from retail customer payments for water, wastewater and stormwater services, which account for 82.6% of total revenues, and wholesale customer payments for wastewater treatment services, which account for 12.2% of total revenues (excluding PILOT/ROW fees for Fiscal Years 2018 through 2022). The Authority's operating revenues have steadily increased since its creation, due largely to rate and fee increases approved by the Board which are discussed in more detail in the section entitled "RATES AND CHARGES – Historical and Projected Water and Wastewater Retail Rates."

The Authority is committed to optimizing the cost of service it offers and as a result places emphasis on managing its expenses. The Authority's Budget Department closely monitors spending to ensure compliance with approved operating and capital budgets. This includes preparation of daily and monthly management reports for each operating unit and financial system controls that prevent overspending. The Authority's Finance Department provides detailed monthly reports on cash and investments, revenues, operating budget and capital spending to the Board's Finance and Budget Committee. In addition, the Authority's Department of Engineering and Technical Services provides quarterly updates on the CIP status to the Board's Environmental Quality and Sewerage Services and Water Quality and Water Services Committees, as well as to the Finance and Budget Committee. The average annual rate of increase in total

operating expenses on a cash basis, excluding PILOT/ROW expenses, for Fiscal Years 2013 through 2017 was 3.8%. In each such year, actual expenses of the Authority were less than the budgeted amount.

Table 19 presents historical revenues, expenses and changes in net position using information contained in the audited financial statements for Fiscal Years 2013 through 2017. The Authority's complete financial statements for the Fiscal Years ended September 30, 2017, and 2016, are attached hereto as APPENDIX B.

Table 19. Historical Revenues, Expenses and Change in Net Position

	(\$ in thousands)				
	Fiscal Year Ended September 30				
	2013	2014	2015	2016	2017
Operating revenues					
Residential, commercial and multi-family customers	\$ 275,337	\$ 295,209	\$335,711	\$382,552	\$ 401,246
Federal government	45,187	39,001	54,274	63,417	67,672
District government and DC Housing Authority	21,677	28,852	32,948	38,185	40,683
Charges for wholesale wastewater treatment	87,178	96,845	112,522	91,873	101,619
Other	9,700	13,917	14,460	19,762	32,149
Total Operating Revenues	439,079	473,824	549,915	595,789	643,169
Operating expenses					
Personnel services	103,908	108,467	115,233	124,239	132,124
Contractual services	68,417	68,172	66,241	74,086	72,611
Chemicals, supplies and small equipment	28,987	31,748	32,935	29,524	33,381
Utilities and rent	26,098	29,939	30,848	23,934	24,262
Depreciation and amortization	77,330	77,833	83,857	89,512	97,900
Water purchases	27,223	28,407	29,109	26,345	26,796
Payment in lieu of taxes and right of way fee	21,982	11,458	20,437	20,744	21,057
Total operating expenses	353,945	356,024	378,660	388,384	408,131
Operating income	85,134	117,800	171,255	207,405	235,038
Nonoperating revenue (expenses)					
Interest income	1,144	977	1,316	2,629	3,740
Interest expense and fiscal charges	(63,905)	(69,288)	(61,409)	(69,118)	(68,293)
Total nonoperating revenue (expenses)	(62,761)	(68,311)	(60,093)	(66,489)	(64,553)
Change in net position before Federal grants and contributions	22,373	49,489	111,162	140,916	170,485
Contributions of capital from Federal government	58,310	94,690	67,965	32,431	24,066
Change in net position	80,683	144,179	179,127	173,347	194,551
Net position, beginning of year	\$1,125,953	\$ 1,206,636	\$1,350,815	\$1,529,942	1,703,289
Net position, end of year	\$1,206,636	\$ 1,350,815	\$1,529,942	\$1,703,289	\$1,897,840

Source: Authority Records

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Historical Debt Service Coverage

The Authority has exceeded the Rate Covenant requirement of 1.20x Senior Debt service coverage set forth in the Indenture and the Authority's policy goal of 1.40x Senior Debt service coverage in each of the last five Fiscal Years, as shown in Table 20. Debt service for Fiscal Year 2013 differs from the coverage as presented in the 2013 Comprehensive Annual Financial Report due to the exclusion of transfers to District of Columbia PILOT Fund (in Table 20 below) in calculating Net Revenues Available for Debt Service.

Table 20. Historical Debt Service Coverage¹
(\$ in thousands)

	Fiscal Year ended September 30				
	2013	2014	2015	2016	2017
Revenues:					
Retail	\$328,361	\$351,148	\$382,012	\$451,467	\$474,462
Wholesale	75,009	70,763	81,230	79,784	81,136
Other Non-Operating	51,088	56,082	75,354	58,078	61,419
(Contributions to/Transfers from Rate Stabilization Fund)	(1,000)	6,500	(10,000)	(19,000)	(10,000)
Total Revenues (A)	\$453,458	\$484,493	\$528,596	\$570,329	607,017
Operating Expenses (B)	252,329	281,918	273,486	298,452	292,812
Revenues Less Operating Expenses (C=A-B)	\$201,129	\$202,575	\$255,109	\$271,877	\$314,205
Debt Service:					
Senior Debt Service (D)	\$41,904	\$42,041	\$55,746	\$46,829	\$51,945
Subordinate Debt Service (E)	65,796	78,124	84,925	105,252	109,263
Total Outstanding and Projected Debt Service (F=D+E)	\$107,700	\$120,165	\$140,671	\$152,081	\$161,208
Calculation of Net Revenues Available for Senior Debt Service:					
Revenues Less Operating Expenses (C)	\$201,129	\$202,575	\$255,109	\$271,877	\$314,205
Prior Year Federal Billing Reconciliation	(5,105)	(6,000)	(5,053)	(11,679)	(19,201)
(Refund to)/Payment from wholesale customers	(5,800)	(10,069)	(2,483)	(13,017)	(10,906)
(Additions to)/Transfers from DC PILOT Fund	(\$7,900)	(7,676)	-	-	-
Customer Rebate	(\$3,298)	(5,100)	-	-	-
Net Revenues Available for Senior Debt Service (G)	\$179,026	\$173,730	\$247,574	\$247,181	\$284,098
Senior Debt Service Coverage (G/D)	4.27x	4.13x	4.44x	5.28x	5.47
Calculation of Subordinate Debt Service Coverage:					
Net Revenue Available for Senior Debt Service	\$179,026	\$173,730	\$247,574	\$247,181	\$284,098
Less Senior Debt Service (D)	(41,904)	(42,041)	(55,746)	(46,829)	(51,945)
Net Revenues Available for Subordinate Debt Service (G-D)	\$137,122	\$131,689	\$191,827	\$200,352	\$232,153
Subordinate Debt Service Coverage ((G-D)/E)	2.08x	1.69x	2.26x	1.90x	2.12
Combined Debt Service Coverage (G/F)	1.66x	1.45x	1.76x	1.63x	1.76

¹ Prepared in accordance with the Indenture, which closely corresponds to cash basis accounting. Debt service on the Series 2010A Bonds (which is included in Subordinate Debt Service above) reflects the Direct Payments the Authority receives from the U.S. Treasury. The Authority has agreed to deposit the Direct Payments related to the Series 2010A Bonds directly into the Series 2010A Interest Account of the Subordinate Lien Bond Fund to pay interest when due on the Series 2010A Bonds. With respect to the effect of Sequestration on the receipt by the Authority of Direct Payments on its Series 2010A Bonds, see "SECURITY FOR THE SERIES 2018A/B BONDS – Direct Payments – Sequestration."

Source: Authority Records.

Annual Budget*Annual Budget Process*

The Authority's budgetary process is based on an integrated approach that links its operating and capital requirements to its ten-year financial plan. Preparation of the Authority's budget begins with the preparation of the ten-year financial plan in the spring of each year. The Authority's operating budgets and the CIP are developed based on the financial parameters laid out in the financial plan and in Board policy. Management presents its proposed operating budgets, the CIP and the ten-year financial plan to the Board's Environmental Quality and Sewerage Services, Water Quality and Water Services, and Finance and Budget Committees for their review, with final action by the full Board typically scheduled for January of each year. Upon final approval by the Board, the Authority's budget is forwarded to the District for inclusion in its submission to the President as described below.

Under the Act and the Federal Act, the Authority is required to prepare and annually submit to the Mayor of the District for inclusion in the annual budget of the District estimates of the expenditures and appropriations necessary for the operation of the Authority for each Fiscal Year. All such estimates are required to be forwarded by the Mayor to the

Council for its action without revision, but subject to the Mayor's recommendations. The Council may comment or make recommendations concerning such annual estimates but has no authority to revise such estimates. Such annual estimates constitute a part of the annual budget of the District required to be submitted by the Mayor to the President of the United States for transmission by the President to the U.S. Congress. In accordance with the District's Home Rule Act, except as noted below, no amount may be obligated or expended by any officer or employee of the District, including the Authority, unless such amount has been approved by act of Congress and then only according to such act. Pursuant to the Federal Act, the limitation described in the preceding sentence is not applicable to expenditures by the Authority for any of the following purposes: (i) any amount obligated or expended from the proceeds of any revenue bonds of the Authority; (ii) any amount obligated or expended for debt service on such revenue bonds; (iii) any amount obligated or expended to secure any revenue bonds of the Authority; or (iv) any amount obligated or expended for repair, maintenance, or capital improvement to the System facilities financed by any revenue bonds of the Authority. In addition, pursuant to Public Law 105-33 (D.C. Code Section 1-204.45a(b)), if the Authority has excess revenues, such excess revenues may be obligated or expended for capital projects.

The Approved Fiscal Year 2018 and Fiscal Year 2019 Budgets

The Board adopted the Fiscal Year 2018 operating budget (the "Fiscal Year 2018 Budget") on December 1, 2016 and the Fiscal Year 2019 operating budget (the "Fiscal Year 2019 Budget") on March 1, 2018.

The Fiscal Year 2018 Budget for operating expenditures totals \$561.9 million, which is \$26.1 million or 5% higher than the Approved Fiscal Year 2017 Budget, primarily due to the increase in debt service cost associated with the Authority's CIP. The Fiscal Year 2019 Budget for operating expenditures totals \$582.8 million, which is \$20.8 million or 4% higher than the Approved Fiscal Year 2018 Budget, primarily due to increases in the CIP and the operations and maintenance budget.

In Fiscal Year 2018 and subsequent years, the Authority anticipates that the difference between actual and budgeted operating expenses will be less than in previous years due to budget planning that focuses on having actual expenses more closely aligned with budgeted expenses. Simultaneously, beginning in Fiscal Year 2015, the Authority includes a separate line item in its operating budget to provide funds for additional cash-financed capital construction, the defeasance of debt, or other uses at the discretion of the Authority. The amounts in this line item could alternatively be used by the Authority to help address potential shortfalls in cash receipts or increases in expenses, should the need arise. In addition, the Authority has the ability to adjust its rates, as necessary, to provide the required revenues in each year.

Projected Financial Operations

Table 21 was prepared by Amawalk in its capacity as the financial feasibility consultant to the Authority, and it shows (i) the actual cash flows, cash reserves and debt service coverage for Fiscal Year 2017 and (ii) projected cash flows, cash reserves and debt service coverage for Fiscal Years 2018 through 2022. The projected revenues reflect the increases in rates and charges adopted by the Authority for Fiscal Year 2018 and the anticipated increases in rates and charges for Fiscal Years 2019 through 2022.

The projected financial results for Fiscal Years 2018 through 2022 incorporate assumptions as of the date of this Official Statement. The projected debt service requirements include anticipated debt service on the Series 2018A/B Bonds. The first payment of debt service for the Series 2018A/B Bonds is expected to be made in Fiscal Year 2018. Including the issuance of the Series 2018A/B Bonds, the Authority anticipates issuing approximately \$966 million of new money bonds from Fiscal Year 2018 through and including Fiscal Year 2022. There are no deposits to the debt service reserve fund assumed for the Series 2018A/B Bonds, and any anticipated future bonds; the Authority may decide to make contributions to the debt service reserve fund in the future at its discretion.

The Authority has the option to issue future bonds as either Senior Debt or Subordinate Debt. The combined debt service coverage would remain the same if the Authority were to elect to issue Senior Debt in lieu of Subordinate Debt or vice versa in a given year. Decisions regarding the issuance of future debt as Senior Debt will be made by the Authority at the time of debt issuance.

For more information in respect of Amawalk's analysis, see "FINANCIAL FEASIBILITY OPINION LETTER."

	Actual 2017 ²	2018	2019	Projected 2020	2021	2022
Revenues and Payment Obligations						
Revenues						
Retail Revenues ¹	\$474,462	\$493,865	\$518,281	\$549,000	\$580,214	\$606,391
Wholesale Revenues	81,136	76,028	79,237	81,614	84,062	86,584
Other Non-Operating Revenues (Contributions to RSF)	61,419 (10,000)	50,580 0	51,950 0	55,153 0	61,960 0	65,481 0
Total Revenues	607,017	620,472	649,467	685,768	726,237	758,456
Prior Year Federal Billing Reconciliation	(19,201)	(9,019)	(5,821)	0	0	0
Projected Billing Refunds	0	(4,000)	(4,000)	(4,000)	0	0
(Refund to)/Payment from IMA	(10,906)	(7,000)	(1,500)	(1,500)	0	0
Net Revenues (A)	576,910	600,453	638,147	680,268	726,237	758,456
Operating Expenses (B)	292,812	298,770	316,797	326,301	336,090	346,173
Net Revenues Available for Debt Service (C=A-B)	284,098	301,683	321,350	353,967	390,147	412,284
Total Senior Debt Service (D) ^{3,4}	51,945	71,022	75,881	83,490	90,323	90,321
Total Subordinate Debt Service (E) ^{3,4,5,6}	109,263	113,256	123,145	130,629	141,805	155,157
Total Outstanding & Projected Debt Service (F=D+E)	161,208	184,278	199,025	214,119	232,128	245,477
Debt Service Coverage						
Calculation of Net Revenues Available for Senior Debt Service Senior Debt Service Coverage (C/D)	5.47x	4.25x	4.23x	4.24x	4.32x	4.56x
Calculation of Subordinate Debt Service Coverage						
Net Revenue Available for Senior Debt Service (C)	284,098	301,683	321,350	353,967	390,147	412,284
Less Senior Debt Service (D)	(51,945)	(71,022)	(75,881)	(83,490)	(90,323)	(90,321)
Net Revenue Available for Subordinate Debt Service (C-D)	232,153	230,661	245,469	270,477	299,824	321,963
Subordinate Debt Service Coverage [(C-D)/E]	2.12x	2.04x	1.99x	2.07x	2.11x	2.08x
Combined Debt Service Coverage (C/F)	1.76x	1.64x	1.61x	1.65x	1.68x	1.68x
Subordinated Payment Obligations						
Payment In Lieu of Taxes/Right of Way Fee (G)	21,057	21,376	21,702	22,034	22,372	22,718
Defeasance/Cash Financed Capital Construction (H) ⁷	24,199	35,260	26,999	28,556	30,129	37,747
Revenues Less Disbursements (I=A-B-F-G-H)	77,633	60,770	73,624	89,258	105,518	106,342
Reserve Balances						
Beginning Cash Reserve Balance (J=K+L+M)	162,652	147,212	140,000	140,000	140,000	140,000
Cash Reserve Balance Breakdown						
Beginning Undesignated Reserve Balance	78,518	62,400	56,198	55,205	52,200	50,617
Additions to/(Transfers from) Undesignated Reserve						
Annual Balance from Operations	107,740	80,789	84,944	94,758	105,518	106,342
Prior Year Federal Billing Reconciliation	(19,201)	(9,019)	(5,821)	0	0	0
Projected Billing Refunds	0	(4,000)	(4,000)	(4,000)	0	0
(Refund to)/Payment from IMA	(10,906)	(7,000)	(1,500)	(1,500)	0	0
Pay-Go Capital Financing	(93,073)	(67,982)	(73,624)	(89,258)	(105,518)	(106,342)
(Transfers to)/Transfers from 60-Day Reserve	(678)	1,010	(993)	(3,005)	(1,584)	(1,632)
Ending Undesignated Reserve Balance	62,400	56,198	55,205	52,200	50,617	48,985
Beginning 60-Day Operating Reserve Balance	49,134	49,812	48,802	49,795	52,800	54,383
Additions to/(Transfers from) 60-Day Reserve	678	(1,010)	993	3,005	1,584	1,632
60-Day Operating Reserve Balance	49,812	48,802	49,795	52,800	54,383	56,015
Beginning Renewal & Replacement Balance	35,000	35,000	35,000	35,000	35,000	35,000
Additions to/(Transfers from) Renewal & Replacement						
Reserve	0	0	0	0	0	0
Renewal & Replacement Balance	35,000	35,000	35,000	35,000	35,000	35,000
Ending Balance Cash Reserve	147,212	140,000	140,000	140,000	140,000	140,000
Stormwater Receipts - DC Water Share (K)	1,025	1,000	1,000	1,000	1,000	1,000
Cash Reserve Requirement Per Board Policy [Maximum of (B-K)*(120/365) or \$125.5 Million] ⁸	125,500	125,500	125,500	125,500	125,500	125,500
Beginning Rate Stabilization Fund Balance	51,450	61,450	61,450	61,450	61,450	61,450
Transfers from Operations (Additions to Rate Stabilization Fund)	10,000	0	0	0	0	0
Additions to Operations/(Transfers from) Rate Stabilization Fund	0	0	0	0	0	0
Rate Stabilization Fund Balance	61,450	61,450	61,450	61,450	61,450	61,450

Source: *Amawalk*

Totals may not add due to rounding.

- ¹ Includes retail revenue from water and wastewater charges as well as the Clean River Impervious Area Charge.
- ² Preliminary results, unaudited.
- ³ Debt service is shown on a cash basis, and may differ from the CAFR.
- ⁴ Anticipated future bonds in Fiscal Years 2018 and 2020 are currently assumed to be issued on a senior lien basis. Anticipated future bonds in Fiscal Years 2019, 2021 and 2022 are currently assumed to be issued on a subordinate lien basis. The Authority may decide in the future to issue bonds on a senior or subordinate basis. Debt service for anticipated future bonds in Fiscal Year 2018 is calculated based on an assumed annual interest rate of 5.00%, a term of 35 years and level debt service. Debt service for anticipated future bonds starting in Fiscal Year 2019 is calculated based on a term of 35 years and level annual debt service and assumed annual interest rates of 5.50% in Fiscal Year 2019, 6.00% in Fiscal Year 2020, and 6.50% in Fiscal Year 2021 and all subsequent years.
- ⁵ The Total Subordinated Debt Service is net of the Build America Bonds (BABs) subsidies the Authority expects to receive from the United States Treasury equal to 32% of the interest payable on the Series 2010A Bonds. It reflects the reduction in BABs subsidy payments due to expected effects of sequestration. See "SECURITY FOR THE SERIES 2018A/B BONDS - Direct Payments – Sequestration."
- ⁶ Subordinated debt service includes an allowance in each year for the interest costs of both Commercial Paper and Extendible Maturity Commercial Paper. See "DEBT SERVICE REQUIREMENTS."
- ⁷ Beginning in FY 2016, the Authority included funds in its annual budget that are intended to be used to defease outstanding debt or pay for construction on a cash basis. These funds are separate from the Pay-Go Capital Financing amounts referenced under Reserve Funds above and are presently assumed to be added to the Pay-Go amounts and deposited in total as a source of funds for the CIP. Alternatively, these funds could be used to cover unexpected declines in revenues or increases in expenses. The Authority reserves the right to modify the amount of the funds and the usage of funds during each year.
- ⁸ Board financial policy requires the maintenance of a cash equivalent to 120 days of operating costs less District stormwater revenues, but not less than a cash balance of \$125.5 million.

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System Revenues

The Authority collects revenues from retail and wholesale customers as well as other sources that include fees paid by developers and interest earnings on available funds. Authority revenues also include transfers from the Rate Stabilization Fund. Table 22 shows historical revenues of the Authority for Fiscal Year 2017, and the projected revenues for Fiscal Years 2018 through 2022.

Table 22. Historical and Projected Revenue on a Cash Basis

Fiscal Years ended/ending September 30
(\$ in thousands)¹

	Actual ²		Projected ³			
	2017	2018	2019	2020	2021	2022
Retail Revenue						
Residential, Commercial, Multi-Family	\$255,971	\$268,463	\$299,927	\$311,725	\$323,712	\$336,470
D. C. Municipal Government	9,431	8,122	9,083	9,440	9,813	10,201
Federal Government	36,925	39,620	41,525	47,513	49,390	51,341
D. C. Housing Authority	7,171	7,428	8,303	8,634	8,975	9,329
Groundwater ⁴	0	5	5	5	5	5
Metering Fee	11,566	10,776	10,776	10,776	10,776	10,776
Water System Replacement Fee ⁵	40,522	39,717	39,717	39,717	39,717	39,717
CRIAC	112,875	119,733	108,945	121,191	137,826	148,552
Total Retail Revenue	\$474,462	\$493,865	\$518,281	\$549,000	\$580,214	\$606,391
Wholesale Revenue						
Loudoun County & Potomac Interceptor	\$8,205	\$8,133	\$8,866	\$9,132	\$9,406	\$9,688
WSSC	59,417	55,320	57,628	59,357	61,137	62,971
Fairfax County	13,514	12,575	12,743	13,125	13,519	13,925
Total Wholesale Revenue	\$81,136	\$76,028	\$79,237	\$81,614	\$84,062	\$86,584
Other Revenues						
District Stormwater Revenues	\$1,025	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Transfer from Rate Stabilization Fund	0	0	0	0	0	0
Miscellaneous Revenues	37,747	25,459	26,085	27,882	30,684	30,626
Aqueduct Debt Service Revenue from Falls Church and Arlington	193	193	193	193	193	193
Interest Income	1,676	2,326	2,971	3,966	7,711	10,944
D.C. Right of Way Occupancy Fee/PILOT	20,777	21,601	21,701	22,113	22,372	22,718
Total Other Revenue	\$61,419	\$50,580	\$51,950	\$55,153	\$61,960	\$65,481
Total Operating Cash Receipts	\$617,017	\$620,472	\$649,467	\$685,768	\$726,237	\$758,456
Less: Contributions to Rate Stabilization Fund	\$(10,000)	0	0	0	0	0
Total Operating Cash Receipts with RSF Transfers	\$607,017	\$620,472	\$649,467	\$685,768	\$726,237	\$758,456

¹ All figures are presented on a cash receipt basis. Totals may not add due to rounding.

² Preliminary results, unaudited.

³ Year 2018 - 2022 revenue projections are based on the Authority's financial plan.

⁴ Groundwater revenue refers to receipts from customers that pump groundwater into the sewer system.

⁵ The meter-based Water System Replacement Fee to recover the cost of the 1% renewal and replacement program for water service lines was implemented beginning in Fiscal Year 2016.

Source: Amawalk.

An overview of the revenue components on a cash basis is provided below.

Retail Water and Wastewater Revenues

Retail revenues comprise the vast majority of all System revenues. In Fiscal Years 2013 through 2017, retail revenues accounted for approximately 77.5% of total revenue (excluding PILOT/ROW fees and the effects of withdrawals from the Rate Stabilization Fund), wholesale customer payments represented about 15.1% of total revenues, with the remaining 7.4% coming from a variety of sources, such as interest income, penalties and fines, and fees from service installations. Retail revenues are derived primarily from water and wastewater service charges of the Authority that are based on water consumption as described earlier in this Official Statement. Other sources of retail revenue include the customer metering fee, CRIAC, and Water System Replacement Fee. See “CUSTOMER BASE, RATES AND CHARGES – Components of Retail Rates and Charges.”

The Authority has projected that revenues from retail customers, excluding PILOT/ROW fees, will be \$493.9 million in Fiscal Year 2018, or 82.5% of the Authority’s total revenues (excluding PILOT/ROW fees). This amount includes approximately \$119.7 million from the CRIAC and \$39.7 million from the Water System Replacement Fee. Without the CRIAC and the Water System Replacement Fee, Fiscal Year 2018 projected revenue is expected to be \$13.4 million, or 4.2%, higher than the Fiscal Year 2017 revenues from retail customers. The projected increase in retail revenue assumes the consumption of retail customers will be lower in Fiscal Year 2018 compared to Fiscal Year 2017. Cash Receipts for the first five months of Fiscal Year 2018 (through February 28, 2018) (excluding PILOT/ROW fees) were on budget for this period. As of the date of this Official Statement, it is not possible to predict whether full-year cash receipts will be higher, lower or the same as the budgeted receipts.

Revenues from retail customers are projected to be \$518.3 million in Fiscal Year 2019. This amount includes approximately \$108.9 million from the CRIAC and \$39.7 million from the Water System Replacement Fee and excludes PILOT/ROW fees. Without the effects of the CRIAC and the Water System Replacement Fee, the Fiscal Year 2018 projected revenue represents an increase of \$35.2 million or 10.5% compared to the projected Fiscal Year 2018 revenues.

Revenues from retail customers are projected to be \$549.0 million in Fiscal Year 2020. This amount includes approximately \$121.2 million from the CRIAC and 39.7 million from the Water System Replacement Fee and excludes PILOT/ROW fees. Without the effects of the CRIAC and the Water System Replacement Fee, the Fiscal Year 2019 projected revenue represents an increase of \$18.5 million or 5.0% compared to the projected Fiscal Year 2019 revenues.

Retail revenues in Fiscal Years 2021 and 2022 are anticipated to increase in each year reflecting both the effects of projected rate increases as well as the expectation that water demand will decrease by 1% annually.

Clean Rivers Impervious Area Charge Revenues

The revenues from the CRIAC were \$98.8 million in Fiscal Year 2016 and \$112.9 million in Fiscal Year 2017. CRIAC revenues are projected to increase to \$119.7 million in Fiscal Year 2018 and then decrease to \$108.9 million in Fiscal Year 2019 due to rate adjustment. The revenues from the CRIAC in Fiscal Years 2020 through 2022 are expected to increase reflecting the effects of projected rate increases.

Water System Replacement Fee

The revenues from Water System Replacement Fee were \$40.5 million in Fiscal Year 2017 (reflecting lag factors in the realization of receipts) and are expected to be to \$39.7 million per year in Fiscal Year 2018 through Fiscal Year 2022.

Stormwater Revenues

In Fiscal Years 2018 through 2022, the Authority anticipates that it will collect \$1 million in stormwater fees from its retail accounts to cover its share of District stormwater expenditures. The District Council has stormwater rate-setting authority for stormwater services provided by the District. The projected revenue from stormwater fees that are payable to the District are based on the current stormwater rate. For more information regarding the stormwater fee, see “CUSTOMER BASE, RATES AND CHARGES – Components of Retail Rates and Charges – Stormwater Fee.”

Wholesale Revenues

The Authority's wholesale revenues for wastewater operations are stable and reflect modest increases in the cost of service and changes in the volumes of wastewater flow from suburban customers. In Fiscal Year 2017, the Authority received \$81.1 million in revenue from its wholesale customers pursuant to the IMA. Revenues from wholesale customers are expected to decrease to \$76.0 million in Fiscal Year 2018 and to increase to \$79.2 million in Fiscal Year 2019. The revenue decline of about \$5.1 million in 2018 is primarily due to changes in allocation methodology including the removal of excess contingency funding in Authority-wide budget, and incorporation of a 3-year average of actuals for wholesale estimated billing, and adjustment of existing estimated wholesale billing.

The revenues from the wholesale customers in Fiscal Years 2020 through 2022 are projected to increase reflecting the effects of projected rate increases as well as the expectation that water demand will decrease by 1% annually.

Loan Repayment from Arlington County and Falls Church

The Authority provided a loan to the Aqueduct to finance certain improvements at the Aqueduct. This loan is repaid to the Authority by Arlington County, Virginia, and Falls Church, Virginia, as Aqueduct Customers, in the form of a credit that is issued to the Authority on the monthly water bills generated by the Aqueduct. The amount of the credit is determined by the Aqueduct in accordance with the Water Sales Agreement, and the annual amount is expected to be \$193,246 from Fiscal Year 2018 through Fiscal Year 2022.

Interest Income on Reserve Funds

Interest income is earned on the available funds of the Authority and a portion of the interest earnings may be used to pay operating and maintenance expenses or capital costs of the Authority.

Interest earnings will fluctuate from year to year based on changes in cash flow, fund balances and market conditions affecting interest rates and other investment terms. The Authority has projected interest earnings of \$2.3 million in Fiscal Year 2018, \$3.0 million in Fiscal Year 2019, \$4.0 million in Fiscal Year 2020, \$7.7 million in Fiscal Year 2021 and \$10.9 million in Fiscal Year 2022, including interest earned from the bond reserves. The assumed annual interest earnings rates for the funds are 1.5% in Fiscal Year 2018 and 2019, 2.0% in Fiscal Year 2020, 3.0% in Fiscal Year 2021 and 4.0% in Fiscal Year 2022. Projected fund balances and interest rate assumptions are reviewed annually as part of the Authority's budget process. The available interest earnings for secure investments are historically low in today's financial markets. The Authority's assumed interest earnings reflect these conditions. Similarly, the assumed current interest rates on borrowed funds, including commercial paper interest, are also historically low compared to prior experience. This assumption reduces interest costs and resulting revenue requirements of the Authority. The Authority assumes for forecasting purposes that interest earnings rates will increase over time while simultaneously assuming that borrowing rates for future Authority debt will be higher than the assumed rates for Fiscal Year 2018.

Miscellaneous Revenue

The Authority realizes revenue from several sources classified as miscellaneous, such as charges for late payments by customers, service installation charges, service line repairs, engineering reviews, the sale of manuals, the District fire protection fee, and fees charged to commercial waste haulers. Miscellaneous revenues in Fiscal Year 2017 were \$37.7 million. Revenues from these sources are expected to decrease to \$25.5 million in Fiscal Year 2018 and then increase to \$26.1 million in Fiscal Year 2019. Miscellaneous revenues are expected to total \$27.9 million per year in Fiscal Year 2020, \$30.7 million in Fiscal Year 2021, and \$30.6 million in Fiscal Year 2022.

These amounts also include payments for various development-related services provided by the Authority and charges to the District for fire protection services. The Authority's annual investments (operating and capital) in fire protection assets and services increased significantly following the execution of the Memorandum of Understanding between the Authority and the District of Columbia Fire and EMS Department (FEMS) on October 25, 2007. The fees charged by the Authority are intended to recover the costs incurred by the Authority related to fire protection services provided by the water system including, but not limited to, the ability to deliver water for firefighting as well as maintaining and upgrading fire hydrants. The Authority's investments will continue in future years but at a pace that is much lower than the peak years of Fiscal Year 2008 and Fiscal Year 2009. The projected miscellaneous revenues assume that the District will make such payments in each year or that a combination of payments and credits against Authority payments to the District will result in the Authority receiving the full amounts expected from the District.

PILOT/ROW Fee

The total combined revenues from the PILOT/ROW Fee are assumed in the financial forecast to total \$21.6 million in Fiscal Year 2018, and increase to \$22.7 million in Fiscal Year 2022. The Authority and the District have negotiated new MOUs for both the PILOT and the ROW (see “THE AUTHORITY – Relationship to District”).

System Expenditures*Operating Expenses*

Table 23 presents the historical Operating and Maintenance (“O&M”) expenses of the Authority for Fiscal Year 2017, and the projected O&M expenses for Fiscal Years 2018 through 2022 on a cash disbursement basis.

The projected expenses for Fiscal Year 2018 reflect the current adopted budget of the Authority which represents a 2.0% increase over the expenses for Fiscal Year 2017, excluding the PILOT/ROW payments to the District. The anticipated expenses for Fiscal Year 2019 reflect an annual increase of 6.0% over the projected expenses for Fiscal Year 2018, excluding the PILOT/ROW payments to the District. The Personnel Services amounts shown in Table 23 are net of amounts charged to capital projects.

Table 23. Historical and Projected Operation and Maintenance Costs on a Cash Disbursement Basis
Fiscal Years ended/ending September 30
(\$ in thousands)¹

	Actual ² 2017	Projected ³				
		2018	2019	2020	2021	2022
Personnel Services	\$129,512	\$128,132	\$144,361	\$148,692	\$153,153	\$157,747
Contractual Services	78,443	79,353	81,679	84,129	86,653	89,253
Water Purchases	26,954	30,156	30,520	31,436	32,379	33,350
Chemical & Supplies	34,313	30,659	32,082	33,044	34,036	35,057
Utilities & Rent	22,695	29,399	26,915	27,722	28,554	29,411
Small Equipment	895	1,071	1,240	1,277	1,316	1,355
Total O&M Expenses	\$292,812	\$298,770	\$316,797	\$326,301	\$336,090	\$346,173
PILOT & D.C. ROW Occupancy Fee	\$21,057	\$21,376	\$21,702	\$22,034	\$22,372	\$22,718
Total Expenses	\$313,869	\$320,146	\$338,499	\$348,335	\$358,462	\$368,891

¹ All figures are presented on a cash disbursement basis. Totals may not add due to rounding.

² Preliminary results; unaudited.

³ Fiscal Year 2018 - 2022 cost projections are based on the Authority’s financial plan.

Source: Amawalk.

Table 24 provides a comparison of the budgeted versus actual costs from Fiscal Year 2015 to Fiscal Year 2017 on an accrual basis. As illustrated in Table 24, the Authority has historically under-spent its annual budget as a whole as well as its O&M expenses as one component of the budget. Individual line items of expense may be higher or lower in a given year but aggregate expenses are historically less than budgeted.

Table 24. Budget to Actual Expense Comparison
Fiscal Years Ended September 30
(\$ in thousands)¹

Category	2015			2016			2017		
	Approved Budget	Actual Cost	Variance	Approved Budget	Actual Cost	Variance	Approved Budget	Actual Cost	Variance
Personnel Service	\$135,544	\$133,935	\$1,609	\$140,034	\$141,886	-\$1,852	\$144,761	\$149,293	-\$4,532
Contractual Service	76,944	66,241	10,703	79,244	74,087	5,157	82,760	72,951	9,809
Water Purchase	28,831	29,109	(278)	30,740	26,345	4,395	29,278	26,796	2,482
Chemical & Supplies	36,186	30,306	5,880	35,951	28,965	6,986	34,709	31,373	3,336
Utilities & Rent	30,416	30,848	(432)	35,018	23,934	11,084	28,670	24,260	4,410
Small Equipment	1,028	531	497	1,465	672	793	1,230	1,178	52
Debt Service	160,264	134,845	25,419	174,766	149,781	24,985	169,346	165,836	3,510
Cash Financed Capital Improvements	20,058	20,058	-	23,644	23,475	169	24,014	24,199	(185)
PILOT/ROW	26,687	20,437	6,250	20,744	20,744	-	21,057	21,057	-
Total Budgetary Basis Expenditures	\$515,958	\$466,310	\$49,648	\$541,605	\$489,888	\$51,717	\$535,825	\$516,943	\$23,510

¹ All figures are presented on an accrual basis
Source: Authority Records

Several factors affecting future expenses are described herein. The Authority has undertaken long-term initiatives to optimize the cost of service. Management's forecast of operations and maintenance expenses reflects continued emphasis on managing such expenses. Examples of historical and ongoing initiatives are outlined in the description of the major categories of expense. Management continually monitors expenditures and reports the results monthly to the Board's Finance and Budget Committee. The Authority also has the option, in any given year, to defer certain expenses in order to stay within its budget and conform to Board policy requirements.

Labor-Related Expenses

Personnel costs are directly affected by staffing levels, salaries and wages, fringe benefits including retirement contributions, overtime expenditures and other factors.

Certain individuals at the Authority are responsible for planning and implementing the CIP. The salaries, wages and fringe benefits of such personnel are charged to capital projects and are paid for through the sources of funds for the CIP. The costs of such personnel are budgeted at \$21.1 million in Fiscal Year 2018, and at \$18.3 in Fiscal Year 2019.

Salaries and Fringe Benefits. The Authority provides its employees with a comprehensive fringe benefit package, including coverage for health insurance, group term life insurance, dental care, vision care, disability coverage and retirement plans. The fringe benefit component of total labor costs in recent years has been impacted by the increasing cost of health care coverage. Fringe benefits are budgeted to be 23.7% of the total personnel services budget in Fiscal Year 2018 and 22.2% of the total personnel services budget in Fiscal Year 2019.

While employed by the Authority, employees contribute to a retirement fund and the Authority contributes a proportional match. Once an employee retires, the Authority has no further financial obligations relating to those employees. Some retired employees may be eligible to receive a federal pension. In addition, the federal government also may assume the employer portion of the healthcare coverage for eligible employees. The Authority is and expects to continue to remain current with its benefit payments.

See "THE AUTHORITY – Employees and Labor Relations" herein for further information regarding the Authority's labor force and the status of collective bargaining agreements.

Overtime Expenses. The Authority uses overtime work by its employees to address unplanned repairs and service needs (e.g., to repair water main breaks that occur outside of normal business hours) as well as to provide resources to offset unfilled positions and to reduce the need for contractual labor. Overtime expenses in Fiscal Year 2017, including an allowance for fringe benefits, totaled \$8.2 million, or about 5.5% of total personnel services costs.

Total Personnel Expenses. On an accrual basis, the Authority's personnel costs increased at an annual average of 6.0% per year from Fiscal Year 2013 through Fiscal Year 2017. Budgeted personnel expenses for Fiscal Year 2018 are \$149.2 million, a 3.1% increase over Fiscal Year 2017. In Fiscal Year 2019, personnel expenses are expected to increase 9.0% from the prior year. Beginning in Fiscal Year 2020, personnel expenses are projected to increase at an average annual rate of 3.0%. The projected rate of increase is supported by the Authority's demonstrated ability to maintain

adequate staffing levels and reduce overtime costs through improvements in its facilities and business practices, as well as the expectation that new employees in the upcoming years will have lower salaries and benefits compared to the employees who will retire during that same period.

Non-Labor Operating Expenses

There are four major categories of non-labor related operating expenses: contractual services (which includes the processing and disposal of biosolids), water purchases, chemicals and supplies, and utilities and rent (which includes electricity needed to operate the Authority facilities). A brief overview of the four major categories of non-labor expenses is provided below.

Contractual Services. Contractual services include the outside services necessary for the Authority to operate and maintain facilities, including the hauling of biosolids from the Blue Plains treatment facility to the disposal location, building maintenance and repair, the maintenance of certain machinery, equipment and vehicles, and other contractual or professional services.

The actual costs on an accrual basis for contractual services in Fiscal Year 2017 were \$73.0 million. The budgeted amounts for contractual services in Fiscal Year 2018 and Fiscal Year 2019 are \$79.4 million and \$81.7 million, respectively. Contractual services expenses are assumed to increase at the average annual rate of 3.0% for Fiscal Years 2020 through 2022.

Also included within contractual services is the Authority's purchase of annual insurance policies. The policies cover property, equipment, worker's compensation, umbrella and excess liability, crime and fidelity, public officials' liability, and fiduciary liability.

Water Purchases. The Authority purchases all of its treated drinking water from the Aqueduct on the basis of a 1997 agreement between the Authority and the Corps of Engineers, the operator of the Aqueduct. Under the terms of the agreement and based on its usage in relation to the other Aqueduct Customers, the Authority pays an average of approximately 75% of the Aqueduct's operating costs. The Authority's share of Aqueduct capital costs is reflected in the Authority's CIP.

On an accrual basis, the actual operating costs for water purchases in Fiscal Year 2017 were \$26.8 million. The budgeted amount for water purchases in Fiscal Year 2018 and Fiscal Year 2019 is \$30.2 million and \$30.5 million, respectively. An average annual increase in water supply costs is assumed at approximately 3.0% in Fiscal Years 2020 through 2022.

Chemicals and Supplies. The chemicals and supplies component of the Authority's operating and maintenance expenses includes, but is not limited to, office, laboratory, custodial and maintenance supplies, automotive supplies, uniforms, and chemicals. Chemicals are the largest portion of this component. The Authority continues to implement a QA/QC program for managing dry polymer selection, procurement, and use. The most cost effective dry polymer products, for different process applications at Blue Plains, are selected based on laboratory and full scale tests. The selected products are "fingerprinted" to verify the consistency in the quality of future deliveries.

The actual expenses for chemicals and supplies in Fiscal Year 2017, on an accrual basis, were \$31.4 million. The budgeted expenses for chemicals and supplies in Fiscal Year 2018 and Fiscal Year 2019 are \$30.7 million and \$32.1 million, respectively. The average annual increase of costs for chemicals and supplies is assumed at 3.0% in Fiscal Years 2020 through 2022.

Utilities and Rent. The Authority is a major user of energy, primarily for the operation of the Blue Plains Wastewater Treatment Facilities. In Fiscal Year 2017, approximately 60% of the expenses associated with utilities and rent were attributable to the cost of power. The combined heat and power facility provides up to a third of the plant's energy needs. See "CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Blue Plains – Wastewater Treatment Projects." The Authority has taken a proactive approach to the procurement of power and its pricing. On October 1, 2014, the Authority entered into a five-year full service electricity contract, with five optional years, to purchase power from Constellation New Energy, Inc., previously ConEdison Solutions. As part of its power purchasing strategy in the deregulated environment, this contract allows the Authority to lock in blocks of power at a fixed price when futures pricing meets budget targets. To the extent that the Authority has power needs that exceed the locked in fixed price blocks, the price of the additional power would be established each day at market rates with direct pass-through of all costs. This contract includes an enhanced process for block power purchases that gives the Authority access to the wholesale market. The Authority's Department of Finance, Accounting and Budget monitors the energy market on a continuous basis.

Reserve Funds

The Authority maintains various reserve funds as previously described herein. See “SECURITY FOR THE SERIES 2018A/B BONDS – Certain Reserve Funds – Discretionary Reserves; – Operating Reserve Fund; – Rate Stabilization Fund; and – Renewal and Replacement Reserve Fund.”

Financial Policies

The Authority has developed a ten-year financial plan to ensure compliance with certain Indenture requirements and the Board’s financial policies. This plan is updated annually, taking into account revisions to the CIP, current and prior year financial performance and other changes. The Board adopted a series of financial policies in 1997 that the Authority utilizes to develop its ten-year financial plan, operating budgets and rate proposals. The policies summarized below reflect revisions adopted by the Board and effective September 30, 2017.

Capital Financing Policy

In order to secure the lowest practical cost of capital to finance the Authority’s long-term capital program, the Authority will aim to achieve the following goals:

- v. Maintain Senior Debt service coverage of 1.40x.*
- vi. Maintain 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. The operating reserve requirement will be evaluated every five years by the Authority’s independent rate consultant in conjunction with the Indenture-required system assessment. At a minimum include in the operating reserve any reserve requirements contained in the Indenture, excluding any debt service reserve funds and the rate stabilization fund.
- vii. 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.
- viii. Whenever possible, use the least costly type of financing for capital projects, based on a careful evaluation of the Authority’s capital and operating requirements and financial position for each year.
- ix. Attempt to match the period of debt repayment, in total, with the lives of the assets financed by any such debt.
- x. Finance its capital equipment needs (e.g., computer equipment and systems; minor utility equipment such as pumps, motors, etc.) and certain taxable costs of the Aqueduct with operating cash or short-term financing instruments with the same or shorter average lives as the related assets.

Rate-Setting Policies

The Authority’s rate-setting policies are based on the following principles:

- xi. Rates and fees will be based on the actual cost to deliver each service.
- xii. Current rates must be sufficient to cover current costs and to meet all bond covenants.
- xiii. The Authority will achieve a positive net income and cash flow each year.
- xiv. Rates will be based on an annually updated ten-year financial plan (both operating and capital).
- xv. Rate increases will be implemented in a gradual and predictable manner, avoiding large one-time rate increases.

*This policy goal exceeds the Rate Covenant requirement of 1.20x as provided in the Indenture.

- xvi. Contributions to and usage of the Rate Stabilization Fund as needed to avoid “rate shock.” Each year, after reviewing financing improvements from cash and any other non-recurring financing uses of excess operating cash, the annual Rate Stabilization Fund deposit, if any, is determined.

Debt Policy

On October 1, 2015, the Board adopted a revised debt policy. This policy provides detailed guidelines that the Authority’s management applies to the Authority’s current and future debt portfolio. The goals of this policy are to ensure compliance with all laws, legal agreements, contracts and adopted policies related to debt issuance and management; to promote cooperation and coordination with all stakeholders in the financing and delivery of services; to promote sound financial management to maximize and best utilize future debt capacity; and to ensure that the duties and responsibilities of those charged with the implementation of the Debt Policy are clearly conveyed and understood.

Cash Management and Investment Policies

In May 2014, the Board amended its comprehensive Statement of Investment Policy. The statement outlines broad investment policies to include delegation of certain authority to the CEO, investment objectives, collateralization of deposits, selection of financial institutions, protection of funds, permitted investments, limits on maturities, investment of bond proceeds and investment reporting.

The Office of Treasury and Debt produces daily and monthly internal reports on all cash management and investment activities, with significant peer oversight within the Chief Financial Officer’s office, monthly reports to the CEO and quarterly reports to the Board’s Finance and Budget Committee that enables them to monitor compliance with Board policies.

Extendable Municipal Commercial Paper Policy

On October 1, 2015, the Board adopted a formal policy relating to the Authority’s EMCP Notes. The goal of this policy is to ensure that the Authority is able to pay (either from its own funds, the proceeds of a new issuance of Series A Notes, or a new issue of bonds or Commercial Paper Notes) the principal of and interest on any outstanding EMCP Notes on the original maturity date or extended maturity date thereof, as the case may be.

ENGINEERING FEASIBILITY REPORT

The Authority retained Johnson, Mirmiran & Thompson, Inc. (“JMT”) to prepare the Independent Engineering Inspection of the DC Water Wastewater and Water Systems dated March 25, 2018 (the “Independent Engineering Inspection”), a copy of which is available on the Authority’s website at www.dewater.com. Pursuant to the Indenture requirement for an inspection of the System at least once every five years, an independent engineering inspection reviews the Authority’s progress in implementing capital projects and its plans to initiate additional capital improvements. The inspection evaluates the adequacy of the Authority’s CIP to maintain its water and wastewater infrastructure and to continue providing reliable service of a high quality to its customers.

The Engineering Feasibility Opinion Letter, which is attached hereto as APPENDIX A-2, summarizes the findings and conclusions from the Independent Engineering Inspection, which are based upon information provided by the Authority or others which is summarized or referred to therein. JMT’s principal findings and conclusions are set forth below. The Engineering Feasibility Opinion Letter should be read in combination with the Independent Engineering Inspection. The Independent Engineering Inspection should be read in its entirety for a complete understanding of the assumptions, considerations, estimates and calculations upon which these conclusions are based.

- The Authority has continued implementing its vision and strategic plan, focusing on increasing the operational efficiency of the Water and Wastewater Systems and providing satisfactory service to its customers.
- The Authority staff, including both management and key operations and maintenance personnel, is well qualified, effectively organized, and is staffed at a sufficient level to meet the mission of providing a safe and dependable drinking water and sanitary sewer service while striving to sustain the environment.
- The existing Water and Wastewater Systems appear to be effectively maintained and operated.
- The Authority has priorities establishing best management practices to maintain all of its assets with the goal to maximize service life while minimizing costs and ensuring sustainability.

- The Authority has developed and continues to implement thorough capital programs for ensuring the integrity of the Water and Wastewater Systems.
- Through appropriate management, operational practices, technology, staffing, tools and equipment and selective outsourcing, the Authority has developed capital, operations and maintenance programs that should ensure the continued effective operation of the systems for the foreseeable future. The systems should continue to provide high levels of service with minimal disruption.
- The Authority’s wastewater and drinking water facilities are in material compliance with all applicable permits and regulations and continue to provide uninterrupted service to its wholesale and retail customers. Such compliance is anticipated to continue through the foreseeable future without any identified negative impacts.
- Substantial progress has been made by the Authority in improving the operating condition of existing facilities. The CIP is structured to provide a systematic program to replace and rehabilitate aging infrastructure on a priority basis.
- Implementation of the Authority’s CIP is intended to address identified system needs and priorities and within a controlled budgetary process.

FINANCIAL FEASIBILITY OPINION LETTER

The Authority retained Amawalk Consulting Group LLC as its financial feasibility consultant, in which capacity Amawalk prepared the Financial Feasibility Opinion Letter dated [], 2018, which is attached hereto as APPENDIX A-1. Amawalk provides financial and management consulting services to water and wastewater utilities, local governments and other organizations. Examples of the consulting services offered by the firm include: cost of service and rate studies; financial modeling; feasibility studies to support the issuance of debt; competitive assessments, including benchmarking and implementation of best practices; analyses supporting the consolidation of services; and the formation/start-up of public authorities including transition planning.

The conclusions set forth in the Financial Feasibility Opinion Letter reflect Amawalk’s analysis of the Authority’s anticipated financial results for Fiscal Years 2018 to 2022. Amawalk has assisted the Authority in preparing certain portions of this Official Statement relating to historical and projected financial performance of the Authority. The Financial Feasibility Opinion Letter has not been updated to reflect any changes occurring after the date of the Financial Feasibility Opinion Letter.

The Financial Feasibility Opinion Letter presents findings and conclusions based upon the analysis of financial statements and reports prepared by or for the Authority and other information provided by the Authority or others which is summarized or referred to therein, including conclusions, assumptions, considerations and recommendations regarding the operation of the System, the necessary improvements and betterments thereto and the steps that should be taken to assure adequate reliable bulk power supply at reasonable cost. Set forth below are Amawalk’s principal conclusions. The Financial Feasibility Opinion Letter and this Official Statement should be read in its entirety for a complete understanding of the assumptions, considerations, estimates and calculations upon which these conclusions are based.

Amawalk concluded that the Authority has the ability to effectively execute its mission, operate its System to provide uninterrupted service, maintain regulatory compliance, and finance and implement its CIP within the parameters set forth in the Indenture and the applicable Board policies. In addition, Amawalk makes the following observations:

- The Authority’s financial forecast is viable, consistent with industry standards, and its projections are expected to meet the Board’s debt service coverage and reserve requirements and targets.
- Revenues of the Authority (including projected revenue increases resulting from anticipated future rate increases to be implemented by the Authority) in the Reporting Period will be sufficient to pay: (i) the actual Operating Expenses; (ii) Annual Debt Service on Senior Debt; (iii) any amount necessary to be deposited in any Account in the Debt Service Reserve Fund relating to a Series of Bonds to restore the amount on deposit therein to the Series Debt Service Reserve Requirement; (iv) the amount required to pay Annual Debt Service on the Subordinate Debt (including any reserves in connection therewith and the restoration thereof); (v) any amount necessary to be deposited in the Operating Reserve Fund and the Renewal and Replacement Reserve Fund to maintain the required balances therein; and (vi) any

amount necessary to make any payments in lieu of taxes in such Fiscal Years. Sufficient funds are projected to be on deposit in each of the required reserve funds during the Reporting Period.

- Pursuant to Board policy, the Authority maintains operating reserves that are greater than \$125.5 million or 120 days of budgeted operation and maintenance expenses. The Authority's actual cash on hand has exceeded the levels required by Board policy in recent years. Amawalk reviewed the operating reserve policies of the Authority in 2018 and concluded that the current Board policy provides for an appropriate level of reserves. Amawalk further recommended that the Board consider amending its policy to a minimum of \$140.0 million or 140 days of budgeted operation and maintenance expenses which would be consistent with the projected balances in the Authority's Financial Plan. There can be no assurance that the Board will maintain or modify this additional financial policy.
- The water and wastewater rates, fees and charges of the Authority, including projected increases for FY 2019 through FY 2022, are somewhat higher than the average of other utilities. Relative to median household income, the single family residential charges of the Authority are reasonable and affordable compared to the charges of other major cities as well as utilities in the region. In addition, the Authority utilizes its well-established affordability programs to assist low income customers in paying their bills.

In the analysis of the forecast of future operations summarized in this Official Statement, Amawalk has reviewed certain assumptions with respect to conditions, events and circumstances which may occur in the future. These assumptions are reasonable and attainable as of the date of the Financial Feasibility Opinion Letter, although actual results may differ from those forecast as influenced by the conditions, events and circumstances which actually occur.

TAX MATTERS

General

In the opinion of Squire Patton Boggs (US) LLP and Leftwich LLC, Co-Bond Counsel, under existing law: (i) interest on the Series 2018A/B Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"), and is not an item of tax preference for purposes of the federal alternative minimum tax ; however, interest on the Series 2018A/B Bonds is included in the calculation of a corporation's adjusted current earnings for purposes of, and thus may be subject to, the corporate alternative minimum tax (applicable only to taxable years beginning before January 1, 2018); and (ii) the Series 2018A/B Bonds and the interest thereon are exempt from District taxation, except estate, inheritance and gift taxes. Co-Bond Counsel expresses no opinion as to any other tax consequences regarding the Series 2018A/B Bonds.

The opinion on federal tax matters will be based on and will assume the accuracy of certain representations and certifications, and continuing compliance with certain covenants, of the Authority contained in the transcript of proceedings and that are intended to evidence and assure the foregoing, including that the Series 2018A/B Bonds are and will remain obligations the interest on which is excluded from gross income for federal income tax purposes. Co-Bond Counsel will not independently verify the accuracy of the Authority's certifications and representations or the continuing compliance with the Authority's covenants.

The opinion of Co-Bond Counsel is based on current legal authority and covers certain matters not directly addressed by such authority. It represents Co-Bond Counsel's legal judgment as to exclusion of interest on the Series 2018A/B Bonds from gross income for federal income tax purposes but is not a guaranty of that conclusion. The opinion is not binding on the Internal Revenue Service ("IRS") or any court. Co-Bond Counsel expresses no opinion about (i) the effect of future changes in the Code and the applicable regulations under the Code or (ii) the interpretation and the enforcement of the Code or those regulations by the IRS.

The Code prescribes a number of qualifications and conditions for the interest on state and local government obligations to be and to remain excluded from gross income for federal income tax purposes, some of which require future or continued compliance after issuance of the obligations. Noncompliance with these requirements by the Authority may cause loss of such status and result in the interest on the Series 2018A/B Bonds being included in gross income for federal income tax purposes retroactively to the date of issuance of the Series 2018A/B Bonds. The Authority has covenanted to take the actions required of it for the interest on the Series 2018A/B Bonds to be and to remain excluded from gross income for federal income tax purposes, and not to take any actions that would adversely affect that exclusion. After the date of issuance of the Series 2018A/B Bonds, Co-Bond Counsel will not undertake to determine (or to so inform any person) whether any actions taken or not taken, or any events occurring or not occurring, or any other matters coming to Co-Bond Counsel's attention, may adversely affect the exclusion from gross income for federal income tax purposes of interest on the Series 2018A/B Bonds or the market value of the Series 2018A/B Bonds.

Interest on the Series 2018A/B Bonds is included in the calculation of a corporation's adjusted current earnings for purposes of, and thus may be subject to, the corporate alternative minimum tax (applicable only to taxable years beginning before January 1, 2018). In addition, interest on the Series 2018A/B Bonds may be subject to a federal branch profits tax imposed on certain foreign corporations doing business in the United States and to a federal tax imposed on excess net passive income of certain S corporations. Under the Code, the exclusion of interest from gross income for federal income tax purposes may have certain adverse federal income tax consequences on items of income, deduction or credit for certain taxpayers, including financial institutions, certain insurance companies, recipients of Social Security and Railroad Retirement benefits, those that are deemed to incur or continue indebtedness to acquire or carry tax-exempt obligations, and individuals otherwise eligible for the earned income tax credit. The applicability and extent of these and other tax consequences will depend upon the particular tax status or other tax items of the owner of the Series 2018A/B Bonds. Co-Bond Counsel will express no opinion regarding those consequences.

Payments of interest on tax-exempt obligations, including the Series 2018A/B Bonds, are generally subject to IRS Form 1099-INT information reporting requirements. If a Bond owner is subject to backup withholding under those requirements, then payments of interest will also be subject to backup withholding. Those requirements do not affect the exclusion of such interest from gross income for federal income tax purposes.

Co-Bond Counsel's engagement with respect to the Series 2018A/B Bonds ends with the issuance of the Series 2018A/B Bonds, and, unless separately engaged, Co-Bond Counsel is not obligated to defend the Authority or the owners of the Series 2018A/B Bonds regarding the tax status of interest thereon in the event of an audit examination by the IRS. The IRS has a program to audit tax-exempt obligations to determine whether the interest thereon is includible in gross income for federal income tax purposes. If the IRS does audit the Series 2018A/B Bonds, under current IRS procedures, the IRS will treat the Authority as the taxpayer and the beneficial owners of the Series 2018A/B Bonds will have only limited rights, if any, to obtain and participate in judicial review of such audit. Any action of the IRS, including but not limited to selection of the Series 2018A/B Bonds for audit, or the course or result of such audit, or an audit of other obligations presenting similar tax issues, may affect the market value of the Series 2018A/B Bonds.

Prospective purchasers of the Series 2018A/B Bonds upon their original issuance at prices other than the respective prices indicated on the inside cover of this Official Statement, and prospective purchasers of the Series 2018A/B Bonds at other than their original issuance, should consult their own tax advisers regarding other tax considerations such as the consequences of market discount, as to all of which Co-Bond Counsel expresses no opinion.

Risk of Future Legislative Changes and/or Court Decisions

Legislation affecting tax-exempt obligations is regularly considered by the United States Congress. Court proceedings may also be filed, the outcome of which could modify the tax treatment of obligations such as the Series 2018A/B Bonds. There can be no assurance that legislation enacted or proposed, or actions by a court, after the date of issuance of the Series 2018A/B Bonds will not have an adverse effect on the tax status of interest on the Series 2018A/B Bonds or the market value or marketability of the Series 2018A/B Bonds. These adverse effects could result, for example, from changes to federal or state income tax rates, changes in the structure of federal or state income taxes (including replacement with another type of tax), or repeal (or reduction in the benefit) of the exclusion of interest on the Series 2018A/B Bonds from gross income for federal or state income tax purposes for all or certain taxpayers.

For example, the recent federal tax legislation that was enacted on December 22, 2017 reduces corporate tax rates, modifies individual tax rates, eliminates many deductions, repeals the corporate alternative minimum tax (for taxable year beginning after December 31, 2017) and eliminates tax-exempt advance refunding bonds, among other things. This legislation may increase, reduce or otherwise change the financial benefits currently provided to certain owners of state and local government bonds. Additionally, investors in the Series 2018A/B Bonds should be aware that future legislative actions may retroactively change the treatment of all or a portion of the interest on the Series 2018A/B Bonds for federal income tax purposes for all or certain taxpayers. In all such events, the market value of the Series 2018A/B Bonds may be affected and the ability of holders to sell their Bonds in the secondary market may be reduced. The Series 2018A/B Bonds are not subject to special mandatory redemption, and the interest rates on the Series 2018A/B Bonds are not subject to adjustment, in the event of any such change in the tax treatment of interest on the Series 2018A/B Bonds.

Investors should consult their own financial and tax advisers to analyze the importance of these risks.

Original Issue Discount and Original Issue Premium

Certain of the Series 2018A/B Bonds ("Discount Bonds") may be offered and sold to the public at an original issue discount ("OID"). OID is the excess of the stated redemption price at maturity (the principal amount) over the "issue price" of a Discount Bond. The issue price of a Discount Bond is the initial offering price to the public (other than to bond houses, brokers or similar persons acting in the capacity of underwriters or wholesalers) at which a

substantial amount of the Discount Bonds of the same maturity is sold pursuant to that offering. For federal income tax purposes, OID accrues to the owner of a Discount Bond over the period to maturity based on the constant yield method, compounded semiannually (or over a shorter permitted compounding interval selected by the owner). The portion of OID that accrues during the period of ownership of a Discount Bond (i) is interest excluded from the owner's gross income for federal income tax purposes to the same extent, and subject to the same considerations discussed above, as other interest on the Bonds, and (ii) is added to the owner's tax basis for purposes of determining gain or loss on the maturity, redemption, prior sale or other disposition of that Discount Bond. The amount of OID that accrues each year to a corporate owner of a Discount Bond is included in the calculation of the corporation's adjusted current earnings for purposes of, and thus may be subject to, the federal corporate alternative minimum tax (applicable only to taxable years beginning before January 1, 2018). A purchaser of a Discount Bond in the initial public offering at the issue price (described above) for that Discount Bond who holds that Discount Bond to maturity will realize no gain or loss upon the retirement of that Discount Bond.

Certain of the Series 2018A/B Bonds ("Premium Bonds") may be offered and sold to the public at a price in excess of their stated redemption price at maturity (the principal amount). That excess constitutes bond premium. For federal income tax purposes, bond premium is amortized over the period to maturity of a Premium Bond, based on the yield to maturity of that Premium Bond (or, in the case of a Premium Bond callable prior to its stated maturity, the amortization period and yield may be required to be determined on the basis of an earlier call date that results in the lowest yield on that Premium Bond), compounded semiannually. No portion of that bond premium is deductible by the owner of a Premium Bond. For purposes of determining the owner's gain or loss on the sale, redemption (including redemption at maturity) or other disposition of a Premium Bond, the owner's tax basis in the Premium Bond is reduced by the amount of bond premium that is amortized during the period of ownership. As a result, an owner may realize taxable gain for federal income tax purposes from the sale or other disposition of a Premium Bond for an amount equal to or less than the amount paid by the owner for that Premium Bond. A purchaser of a Premium Bond in the initial public offering who holds that Premium Bond to maturity (or, in the case of a callable Premium Bond, to its earlier call date that results in the lowest yield on that Premium Bond) will realize no gain or loss upon the retirement of that Premium Bond.

Owners of Discount and Premium Bonds should consult their own tax advisers as to the determination for federal income tax purposes of the existence of OID or bond premium, the determination for federal income tax purposes of the amount of OID or bond premium properly accruable or amortizable in any period with respect to the Discount or Premium Bonds, other federal tax consequences in respect of OID and bond premium, and the treatment of OID and bond premium for purposes of state and local taxes on, or based on, income.

COVENANT BY THE DISTRICT OF COLUMBIA

Under the Act, the District pledges to the Authority and any holders of the bonds that, except as provided under the Act, the District will not limit or alter rights vested in the Authority to fulfill agreements made with holders of the bonds, or in any way impair the rights and remedies of the holders of the bonds until the bonds, together with interest thereon, with interest on any unpaid installments of interest and all costs and expenses in connection with any action or proceedings by or on behalf of the holders of the bonds, are fully met and discharged.

LITIGATION

There is not now pending or, to the best of the Authority's knowledge, threatened any litigation restraining or enjoining the issuance or delivery of the Series 2018A/B Bonds or questioning or affecting the validity of the Series 2018A/B Bonds, the proceedings and authority under which they are to be issued, nor is the creation, organization, or existence of the Authority being contested. Nor is there any litigation pending or, to the best of the Authority's knowledge, threatened which (i) in any manner questions the right of the Authority to operate the System or its right to conduct its activities in accordance with the provisions of the Act and of the Indenture or (ii) if determined adversely to the Authority, would have a material adverse impact on the financial condition of the Authority.

The Authority is subject to a variety of suits and proceedings arising out of its ordinary course of operations, some of which may be adjudicated adversely to the Authority. Any such litigation is of a routine nature which does not affect the right of the Authority to conduct its business or the validity of its obligations.

LEGAL MATTERS

Certain legal matters relating to the issuance of the Series 2018A/B Bonds are subject to the approving opinions of Squire Patton Boggs (US) LLP and Leftwich LLC, Co-Bond Counsel, which will be furnished upon delivery of the Series 2018A/B Bonds, substantially in the form set forth as APPENDIX F. Squire Patton Boggs (US) LLP and Leftwich LLC also serve as Co-Disclosure Counsel to the Authority in connection with the preparation of this Official Statement. Certain legal matters will be passed upon for the Authority by its General Counsel, and for the Underwriters by their co-counsel, Orrick, Herrington & Sutcliffe LLP and McKenzie & Associates.

INDEPENDENT AUDITORS

The financial statements of the Authority for Fiscal Years 2016 and 2017 included in this Official Statement have been audited by KPMG LLP (“KPMG”). KPMG has not been engaged to perform and has not performed, since the date of its report included herein, any procedures on the financial statements addressed in that report. KPMG also has not performed any procedures relating to this Official Statement.

THE TRUSTEE

The Authority has appointed Wells Fargo Bank, N.A., a national banking association organized under the laws of the United States, to serve as Trustee. The Trustee is to carry out those duties assignable to it under the Master Indenture. Except for the contents of this section, the Trustee has not reviewed or participated in the preparation of this Official Statement and assumes no responsibility for the nature, contents, accuracy or completeness of the information set forth in this Official Statement or for the recitals contained in the Indenture or the Series 2018A/B Bonds, or for the validity, sufficiency, or legal effect of any of such documents.

Furthermore, the Trustee has no oversight responsibility, and is not accountable, for the use or application of the proceeds of such Series 2018A/B Bonds by the Authority. The Trustee has not evaluated the risks, benefits, or propriety of any investment in the Series 2018A/B Bonds and makes no representation, and has reached no conclusions, regarding the value or condition of any assets or revenues pledged or assigned as security for the Series 2018A/B Bonds, the technical or financial feasibility of the Project, or the investment quality of the Series 2018A/B Bonds, about all of which the Trustee expresses no opinion and expressly disclaims the expertise to evaluate.

RATINGS

Standard & Poor’s Global Ratings Services (“S&P”), and Moody’s Investors Service, Inc. (“Moody’s”), have assigned long-term municipal bond ratings of “[]” and “[]” respectively, to the Series 2018A/B Bonds. A securities rating is not a recommendation to buy, sell or hold the Series 2018A/B Bonds and may be subject to revision or withdrawal at any time. A rating reflects only the view of the rating agency giving such rating. An explanation of the significance of the ratings may be obtained from: S&P at 55 Water Street, New York, New York 10041; and from Moody’s at 7 World Trade Center, New York, New York 10007. There is no assurance that a rating will apply for any given period of time, or that a rating will not be revised or withdrawn. A revision or withdrawal of a rating may have an effect on the market price of or the market for the Series 2018A/B Bonds.

Moody’s has assigned a Green Bond Assessment of [] to the Series 2018A Bonds. Such assessment reflects only the view of Moody’s, with respect to the assessment given by it, and any explanation of the significance of such assessment may only be obtained from Moody’s. There is no assurance that the assessment will remain in effect for any given period of time or that they will not be lowered, suspended or withdrawn entirely if, in the judgment of Moody’s, circumstances so warrant. Any such lowering, suspension or withdrawal of the assessment might have an adverse effect on the market price or marketability of the Series 2018A Bonds.

CONTINUING DISCLOSURE

In accordance with the requirements of the Rule promulgated by the SEC, the Authority will enter into the Continuing Disclosure Agreement dated the date of delivery of the Series 2018A/B Bonds, which will constitute a written undertaking for the benefit of the Owners of the Series 2018A/B Bonds, solely to assist the Underwriters in complying with subsection (b)(5) of the Rule. Pursuant to the Continuing Disclosure Agreement, the Authority has covenanted to provide certain financial information on an annual basis and to provide notice of certain enumerated events. See APPENDIX D – “Form of the Continuing Disclosure Agreement” for detailed provisions of the Continuing Disclosure Agreement.

FINANCIAL ADVISORS

PFM Financial Advisors LLC and G-Entry Principle, PC, together, have served as co-financial advisors (the “Co-Financial Advisors”) to the Authority with respect to the issuance of the Series 2018A/B Bonds.

UNDERWRITING

Goldman Sachs & Co. LLC, on behalf of itself and as representative (the “Representative”) of the underwriters identified on the front cover of this Official Statement (collectively, the “Underwriters”) has agreed to purchase from the Authority the Series 2018A/B Bonds at an aggregate purchase price equal to \$[] (which amount constitutes the aggregate principal amount of the Series 2018A/B Bonds of \$[], plus original issue premium of \$[], less the Underwriters’ discount of \$[]).

The Bond Purchase Agreement by and among the Authority and the Representative, on behalf of itself and as representative of the Underwriters dated [], 2018 (the “Series 2018A/B Bond Purchase Agreement”), provides that the Underwriters will purchase all of the Series 2018A/B Bonds, if any are purchased, and the obligation to make such purchases is subject to certain terms and conditions set forth in the Series 2018A/B Bond Purchase Agreement, the approval of certain legal matters by counsel and certain other conditions.

The Series 2018A/B Bonds may be offered and sold to certain dealers (including dealers depositing the Series 2018A/B Bonds into investment trusts) at prices lower than the public offering prices and such public offering prices may be changed from time to time by the Underwriters.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the Underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the Authority and to persons and entities with relationships with the Authority, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the Authority (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the Authority. The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments

LEGALITY FOR INVESTMENT

The Act provides that the bonds of the Authority are legal instruments in which public officers and public bodies of the District, insurance companies, insurance company associations and other persons carrying on an insurance business, banks, bankers, banking institutions, including savings and loan associations, building and loan associations, trust companies, savings banks, savings associations, investment companies and other persons carrying on a banking business, administrators, guardians, executors, trustees and other fiduciaries and other persons authorized to invest in bonds or in other obligations of the District, may legally invest funds, including capital, in their control.

The bonds are also, by the Act, securities which legally may be deposited with, and received by, public officers and public bodies of the District or any agency of the District for any purpose for which the deposit of bonds or other obligations of the District is authorized by law.

RELATIONSHIP OF PARTIES

In addition to representing the Authority as Co-Bond Counsel and Co-Disclosure Counsel, Squire Patton Boggs (US) LLP from time to time represents the Authority in other matters, including environmental, regulatory and personnel matters. From time to time, Squire Patton Boggs (US) LLP also represents one or more members of the underwriting group as its or their counsel in municipal bond transactions and other matters, but not in any matters related to the Authority.

In addition to representing the Authority as Co-Bond Counsel and Co-Disclosure Counsel, Leftwich LLC from time to time represents the Authority in other matters, including personal injury and personnel matters.

MISCELLANEOUS

All estimates, assumptions, statistical information and other statements contained herein, while taken from sources considered reliable, are not guaranteed. To the extent that any statements herein include matters of opinion, or estimates of future expenses and income, whether or not expressly so stated, they are intended merely as such and not as representations of fact.

The agreement of the Authority with the holders of the Series 2018A/B Bonds is fully set forth in the Indenture. Neither any advertisement of the Series 2018A/B Bonds nor this Official Statement is to be construed as constituting an agreement with the purchasers of the Series 2018A/B Bonds.

The information contained herein should not be construed as representing all conditions affecting the Authority or the Series 2018A/B Bonds. The foregoing statements relating to the Act, the Federal Act, the Indenture and other documents are summaries of certain provisions thereof, and in all respects are subject to and qualified in their entirety by express reference to the provisions of such documents in their complete forms.

The attached Appendices A through F are integral parts of this Official Statement and should be read in their entirety, together with all of the foregoing statements.

**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

By: _____
Matthew T. Brown
Chief Financial Officer

APPENDIX A-1
FINANCIAL FEASIBILITY OPINION LETTER OF
AMAWALK CONSULTING GROUP LLC
DATED [], 2018

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APPENDIX A-2

**ENGINEERING FEASIBILITY OPINION LETTER OF
JOHNSON, MIRMIRAN & THOMPSON, INC.
DATED MARCH 28, 2018**

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APPENDIX B

**AUDITED FINANCIAL STATEMENTS OF THE AUTHORITY
FOR THE YEARS ENDED SEPTEMBER 30, 2017, AND 2016**

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APPENDIX C
GLOSSARY AND SUMMARY OF THE INDENTURE

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APPENDIX D
FORM OF CONTINUING DISCLOSURE AGREEMENT

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FORM OF CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (the “Disclosure Agreement”) is executed and delivered by the District of Columbia Water and Sewer Authority (the “Issuer”) in connection with the issuance of its Public Utility Senior Lien Revenue Bonds, Series 2018A (the “Series 2018A Bonds”) and its Public Utility Senior Lien Revenue Bonds, Series 2018B (the “Series 2018B Bonds”) and, together with the Series 2018A Bonds, the “Series 2018A/B Bonds”). The Series 2018A/B Bonds are being issued pursuant to the Master Indenture of Trust, dated as of April 1, 1998 (the “Master Indenture”), as amended and supplemented to the date of delivery of the Series 2018A/B Bonds (the “Indenture”), including by the Twenty-Third Supplemental Indenture of Trust, to be dated the date of issuance and delivery of the Series 2018A/B Bonds (the “Twenty-Third Supplemental Indenture”), each by and between the Authority and Wells Fargo Bank, N.A., as trustee (the “Trustee”). The Issuer covenants and agrees as follows:

SECTION 1. Purpose of the Disclosure Agreement. This Disclosure Agreement is being executed and delivered by the Issuer for the benefit of the Holders and Beneficial Owners of the Series 2018A/B Bonds and in order to assist the Participating Underwriter in complying with Securities and Exchange Commission (“S.E.C.”) Rule 15c2-12(b)(5).

SECTION 2. Definitions. In addition to the definitions set forth in the Indenture, which apply to any capitalized term used in this Disclosure Agreement unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

“Annual Report” shall mean any Annual Report provided by the Issuer pursuant to, and as described in, Sections 3 and 4 of this Disclosure Agreement.

“Beneficial Owner” shall mean any person who has or shares the power, directly or indirectly, to make investment decisions concerning ownership of any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries).

“Dissemination Agent” shall mean the Issuer, or any successor Dissemination Agent designated in writing by the Issuer and which has filed with the Issuer a written acceptance of such designation.

“Holder” shall mean the person in whose name any Bond shall be registered.

“Listed Events” shall mean any of the events listed in Section 5(a) or (b) of this Disclosure Agreement.

“MSRB” shall mean the Municipal Securities Rulemaking Board or any other entity designated or authorized by the Securities and Exchange Commission to receive reports pursuant to the Rule. Until otherwise designated by the MSRB or the Securities and Exchange Commission, filings with the MSRB are to be made through the Electronic Municipal Market Access (EMMA) website of the MSRB, currently located at <http://emma.msrb.org>.

“Participating Underwriter” shall mean the original underwriter of the Series 2018A/B Bonds required to comply with the Rule in connection with offering of the Series 2018A/B Bonds.

“Rule” shall mean Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

SECTION 3. Provision of Annual Reports.

(a) The Issuer shall, or shall cause the Dissemination Agent to, not later than 240 days after the end of the Issuer’s fiscal year (which shall be June 1 of each year, so long as the Issuer’s fiscal year ends on September 30), commencing with the report for the fiscal year ending September 30, 2018 (which is due not later than June 1, 2019), provide to the MSRB an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Agreement. The Annual Report may cross-reference other information as provided in Section 4 of this Disclosure Agreement; provided that the audited financial statements of the Issuer may be submitted separately from the balance of the Annual Report and later than the date required above for the filing of the Annual Report if they are not available by that date. If the Issuer’s fiscal year changes, it shall give notice of such change in a filing with the MSRB. The Annual Report shall be submitted on a standard form in use by industry participants or other appropriate form and shall identify the Series 2018A/B Bonds by name and CUSIP number.

(b) Not later than 15 business days prior to said date, the Issuer shall provide the Annual Report to the Dissemination Agent (if other than the Issuer). If the Issuer is unable to provide to the MSRB an Annual Report by

the date required in subsection (a), the Issuer shall, in a timely manner, send or cause to be sent to the MSRB a notice to that effect.

(c) The Dissemination Agent shall (if the Dissemination Agent is other than the Issuer) file a report with the Issuer certifying that the Annual Report has been provided pursuant to this Disclosure Agreement, stating the date it was provided to the MSRB.

SECTION 4. Content of Annual Reports. The Issuer's Annual Report shall contain or include by reference the following:

(a) the Issuer's comprehensive annual financial report (the "CAFR"), which includes audited financial statements prepared in accordance with generally accepted accounting principles in effect from time to time. If the Issuer's audited financial statements are not available by the time the Annual Report is required to be provided to the MSRB pursuant to Section 3(a), the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained in the final Official Statement, and the audited financial statements shall be provided to the MSRB in the same manner as the Annual Report when they become available; and

(b) to the extent not included in the CAFR, material historical financial and operating data concerning the Issuer and the Revenues of the Issuer generally of the type found in the tables included in the Issuer's Official Statement dated [], 2018 relating to the Series 2018A/B Bonds (the "Official Statement") under the captions "THE SYSTEM," "CAPITAL IMPROVEMENT PROGRAM," "CUSTOMER BASE, RATES AND CHARGES" and "FINANCIAL OPERATIONS."

Any or all of the items listed above may be set forth in one or a set of documents or may be included by specific reference to other documents, including Official Statements of debt issues of the Issuer or related public entities, which have been made available to the public on the MSRB's website. The Issuer shall clearly identify each such other document so included by reference.

SECTION 5. Reporting of Significant Events.

(a) The Issuer shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Series 2018A/B Bonds in a timely manner not later than ten business days after the occurrence of the event:

1. Principal and interest payment delinquencies;
2. Unscheduled draws on debt service reserves reflecting financial difficulties;
3. Unscheduled draws on credit enhancements reflecting financial difficulties;
4. Substitution of credit or liquidity providers, or their failure to perform;
5. Adverse tax opinions or issuance by the Internal Revenue Service of proposed or final determination of taxability or of a Notice of Proposed Issue (IRS Form 5701 TEB);
6. Tender offers;
7. Defeasances;
8. Rating changes; or
9. Bankruptcy, insolvency, receivership or similar event of the obligated person.

Note: for the purposes of the event identified in subparagraph (9), the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for an obligated person in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person, or if such jurisdiction has been assumed by leaving the existing governmental body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or

liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the obligated person.

(b) The Issuer shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Series 2018A/B Bonds, if material, in a timely manner not later than ten business days after the occurrence of the event:

1. Unless described in paragraph 5(a)(5), other material notices or determinations by the Internal Revenue Service with respect to the tax status of the Series 2018A/B Bonds or other material events affecting the tax status of the Series 2018A/B Bonds;
2. Modifications to rights of Bond holders;
3. Optional, unscheduled or contingent Bond calls;
4. Release, substitution, or sale of property securing repayment of the Series 2018A/B Bonds;
5. Non-payment related defaults;
6. The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms; or
7. Appointment of a successor or additional trustee or the change of name of a trustee.

(c) Whenever the Issuer obtains knowledge of the occurrence of a Listed Event described in Section 5(b), the Issuer shall determine if such event would be material under applicable federal securities laws.

(d) If the Issuer learns of the occurrence of a Listed Event described in Section 5(a), or determines that knowledge of a Listed Event described in Section 5(b) would be material under applicable federal securities laws, the Issuer shall within ten business days of occurrence file a notice of such occurrence with the MSRB. Notwithstanding the foregoing, notice of the Listed Event described in subsections 5(a)(7) or 5(b)(3) need not be given under this subsection any earlier than the notice (if any) of the underlying event is given to Holders of affected Bonds pursuant to the Indenture.

SECTION 6. Format for Filings with MSRB. Any report or filing with the MSRB pursuant to this Disclosure Agreement must be submitted in electronic format, accompanied by such identifying information as is prescribed by the MSRB.

SECTION 7. Termination of Reporting Obligation. The Issuer's obligations under this Disclosure Agreement shall terminate upon the legal defeasance, prior redemption or payment in full of all of the Series 2018A/B Bonds. If such termination occurs prior to the final maturity of the Series 2018A/B Bonds, the Issuer shall give notice of such termination in a filing with the MSRB.

SECTION 8. Dissemination Agent. The Issuer may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Agreement, and may discharge any such Dissemination Agent, with or without appointing a successor Dissemination Agent. The Dissemination Agent shall not be responsible in any manner for the content of any notice or report prepared by the Issuer pursuant to this Disclosure Agreement. The initial Dissemination Agent shall be the Issuer.

SECTION 9. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Agreement, the Issuer may amend this Disclosure Agreement, and any provision of this Disclosure Agreement may be waived, provided that the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions of Sections 3(a), 4, 5(a) or 5(b), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an obligated person with respect to the Series 2018A/B Bonds, or the type of business conducted;

(b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Series 2018A/B Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the Holders or Beneficial Owners of the Series 2018A/B Bonds.

In the event of any amendment or waiver of a provision of this Disclosure Agreement, the Issuer shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the Issuer. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given in a filing with the MSRB, and (ii) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

SECTION 10. Additional Information. Nothing in this Disclosure Agreement shall be deemed to prevent the Issuer from disseminating any other information, using the means of dissemination set forth in this Disclosure Agreement or any other means of communication, or including any other information in any Annual Report or notice required to be filed pursuant to this Disclosure Agreement, in addition to that which is required by this Disclosure Agreement. If the Issuer chooses to include any information in any Annual Report or notice in addition to that which is specifically required by this Disclosure Agreement, the Issuer shall have no obligation under this Disclosure Agreement to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event or any other event required to be reported.

SECTION 11. Default. In the event of a failure of the Issuer to comply with any provision of this Disclosure Agreement, any Holder or Beneficial Owner of the Series 2018A/B Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the Issuer to comply with its obligations under this Disclosure Agreement; provided, that any such action may be instituted only in the District of Columbia. The sole remedy under this Disclosure Agreement in the event of any failure of the Issuer to comply with this Disclosure Agreement shall be an action to compel performance.

SECTION 12. Beneficiaries. This Disclosure Agreement shall inure solely to the benefit of the Issuer, the Dissemination Agent, the Participating Underwriter and Holders and Beneficial Owners from time to time of the Series 2018A/B Bonds, and shall create no rights in any other person or entity.

Date: [], 2018

DISTRICT OF COLUMBIA WATER AND SEWER
AUTHORITY

By _____
Matthew T. Brown, Chief Financial Officer

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APPENDIX E
DTC BOOK-ENTRY ONLY SYSTEM

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DTC BOOK-ENTRY ONLY SYSTEM

The description that follows of the procedures and record keeping with respect to beneficial ownership interests in the Series 2018A/B Bonds, payments of principal, premium, if any, and interest on the Series 2018A/B Bonds to DTC, its nominee, Participants, or Beneficial Owners, confirmation and transfer of beneficial ownership interests in the Series 2018A/B Bonds and other bond-related transactions by and between DTC, Participants and Beneficial Owners is based on information furnished by DTC. The Authority and the Underwriters take no responsibility for the accuracy thereof.

The Depository Trust Company, New York, New York (“DTC”) will act as securities depository for the Series 2018A/B Bonds. The Series 2018A/B Bonds will be issued as fully registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully registered Series 2018A/B Bond will be issued for the Series 2018A/B Bonds of each series and maturity in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world’s largest securities depository, is a limited purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934, as amended. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers, and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). DTC has a Standard & Poor’s rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com and www.dtc.org.

Purchases of the Series 2018A/B Bonds under the DTC system must be made by or through Direct Participants, who will receive a credit for such Series 2018A/B Bonds on DTC’s records. The ownership interest of each actual purchaser of each Series 2018A/B Bonds Bond (the “Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2018A/B Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Series 2018A/B Bonds, except in the event that use of the book-entry system for the Series 2018A/B Bonds is discontinued.

To facilitate subsequent transfers, all Series 2018A/B Bonds deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of the Series 2018A/B Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2018A/B Bonds; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Series 2018A/B Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices shall be sent to DTC. If less than all of the Series 2018A/B Bonds are being redeemed, DTC’s practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

THE TRUSTEE, AS LONG AS A BOOK-ENTRY ONLY SYSTEM IS USED FOR THE SERIES 2018A/B BONDS, WILL SEND ANY NOTICE OF REDEMPTION OR OTHER NOTICES ONLY TO DTC. ANY FAILURE OF DTC TO ADVISE ANY PARTICIPANT, OR OF ANY PARTICIPANT TO NOTIFY ANY

BENEFICIAL OWNER OF ANY NOTICE AND OF ITS CONTENT OR EFFECT WILL NOT AFFECT THE VALIDITY OR SUFFICIENCY OF THE PROCEEDINGS RELATING TO THE REDEMPTION OF THE SERIES 2018A/B BONDS CALLED FOR REDEMPTION OR OF ANY OTHER ACTION PREMISED ON SUCH NOTICE.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Series 2018A/B Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2018A/B Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the Series 2018A/B Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Authority or the Trustee on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Trustee, or the Authority, subject to any statutory or regulatory requirement as may be in effect from time to time. Payment of principal and interest to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC, is the responsibility of the Authority or the Trustee, disbursement of such payments to Direct Participants shall be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners shall be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the Series 2018A/B Bonds at any time by giving reasonable notice to the Authority or the Trustee. Under such circumstances, in the event that a successor securities depository is not obtained, Series 2018A/B Bonds Bond certificates are required to be printed and delivered. The Authority may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, Series 2018A/B Bonds Bond certificates will be printed and delivered.

So long as Cede & Co. is the registered owner of the Series 2018A/B Bonds, as partnership nominee for DTC, references herein to Bondholders or registered owners of the Series 2018A/B Bonds (other than under the caption "TAX MATTERS") shall mean Cede & Co. and shall not mean the Beneficial Owners of the Series 2018A/B Bonds.

When reference is made to any action which is required or permitted to be taken by the Beneficial Owners, such reference shall only relate to those permitted to act (by statute, regulation or otherwise) on behalf of such Beneficial Owners for such purposes.

NEITHER THE AUTHORITY NOR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DTC PARTICIPANTS, TO INDIRECT PARTICIPANTS, OR TO ANY BENEFICIAL OWNER WITH RESPECT TO (I) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC, CEDE & CO., ANY DTC PARTICIPANT, OR ANY INDIRECT PARTICIPANT; (II) ANY NOTICE THAT IS PERMITTED OR REQUIRED TO BE GIVEN TO THE OWNERS OF THE SERIES 2018A/B BONDS; (III) THE SELECTION BY DTC OR ANY DTC PARTICIPANT OR INDIRECT PARTICIPANT OF ANY PERSON TO RECEIVE PAYMENT IN THE EVENT OF A PARTIAL REDEMPTION OF THE SERIES 2018A/B BONDS; (IV) THE PAYMENT BY DTC OR ANY DTC PARTICIPANT OR INDIRECT PARTICIPANT OF ANY AMOUNT WITH RESPECT TO THE PRINCIPAL OR REDEMPTION PREMIUM, IF ANY, OR INTEREST DUE WITH RESPECT TO THE SERIES 2018A/B BONDS; (V) ANY CONSENT GIVEN OR OTHER ACTION TAKEN BY DTC AS THE OWNER OF THE SERIES 2018A/B BONDS; OR (VI) ANY OTHER MATTER.

APPENDIX F
PROPOSED FORM OF OPINION OF CO-BOND COUNSEL

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[], 2018

To: District of Columbia Water and Sewer Authority

Goldman Sachs & Co. LLC

New York, New York,

as Representative of the Underwriters of the Series 2018A/B Bonds

Re: District of Columbia Water and Sewer Authority

Public Utility Senior Lien Revenue Bonds, Series 2018A (Green Bonds)

Public Utility Senior Lien Revenue Bonds, Series 2018B

We have served as co-bond counsel to our client, the District of Columbia Water and Sewer Authority (the "Authority"), and not as counsel to any other person, in connection with the issuance by the Authority of its \$[] Public Utility Senior Lien Revenue Bonds, Series 2018A/B (the "Series 2018A/B Bonds"), comprised of the \$[] Public Utility Senior Lien Revenue Bonds, Series 2018A (Green Bonds) (the "Series 2018A Bonds") and the \$[] Public Utility Senior Lien Revenue Bonds, Series 2018B (the "Series 2018B Bonds"), dated the date of this letter.

The Series 2018A/B Bonds are issued pursuant to the Master Indenture of Trust, dated as of April 1, 1998 (the "Master Indenture"), between the Authority and Wells Fargo Bank, N.A., as successor to Norwest Bank Minnesota, N.A. (the "Trustee"), as supplemented and amended, including by the Twenty-Third Supplemental Indenture of Trust, dated as of the same date as and relating to the Series 2018A/B Bonds (the "Twenty-Third Supplemental Indenture" and, together with the Master Indenture as previously amended and supplemented, the "Indenture"), between the Authority and the Trustee. Capitalized terms not otherwise defined in this letter are used as defined in the Indenture.

In our capacity as co-bond counsel, we have examined the transcript of proceedings relating to the issuance of the Series 2018A/B Bonds, a copy of each signed and authenticated Series 2018A Bond and Series 2018B Bond of the first maturity, the Indenture and such other documents, matters and law as we deem necessary to render the opinions set forth in this letter.

Based on that examination and subject to the limitations stated below, we are of the opinion that, under existing law:

1. The Series 2018A/B Bonds and the Indenture are valid and binding obligations of the Authority, enforceable in accordance with their respective terms.
2. The Series 2018A/B Bonds constitute special, limited obligations of the Authority, and the principal of and interest and any premium (collectively, "debt service") on

the Series 2018A/B Bonds, together with debt service on other Senior Debt that the Authority has issued or may in the future issue under the Indenture, are payable solely from the Net Revenues and certain funds and accounts established under the Indenture. The Series 2018A/B Bonds are secured as Senior Debt under the Indenture and, as such, are secured by a senior lien on and pledge of (i) Net Revenues on a parity with the pledge of Net Revenues that secures other Senior Debt; and (ii) the moneys and Permitted Investments in the Bond Fund on a parity with the pledge of Net Revenues that secures other Senior Debt. The Series 2018A/B Bonds and the payments of debt service are not general obligations of the District of Columbia and are not secured by an obligation or pledge of any money raised by taxation.

3. Interest on the Series 2018A/B Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"), and is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations; however, portions of the interest on the Series 2018A/B Bonds earned by certain corporations may be subject to a corporate alternative minimum tax. The Series 2018A/B Bonds and the interest thereon are exempt from District of Columbia taxation, except estate, inheritance and gift taxes. We express no opinion as to any other tax consequences regarding the Series 2018A/B Bonds.

The opinions stated above are based on an analysis of existing laws, regulations, rulings and court decisions and cover certain matters not directly addressed by such authorities. In rendering all such opinions, we assume, without independent verification, and rely upon (i) the accuracy of the factual matters represented, warranted or certified in the proceedings and documents we have examined, and (ii) the due and legal authorization, execution and delivery of those documents by, and the valid, binding and enforceable nature of those documents upon, any parties other than the Authority.

In rendering those opinions with respect to treatment of the interest on the Series 2018A/B Bonds under the federal tax laws and District of Columbia tax laws, we further assume and rely upon compliance with the covenants in the proceedings and documents we have examined, including those of the Authority. Failure to comply with certain of those covenants subsequent to issuance of the Series 2018A/B Bonds may cause interest on the Series 2018A/B Bonds to be included in gross income for federal income tax purposes retroactively to their date of issuance.

The rights of the owners of the Series 2018A/B Bonds and the enforceability of the Series 2018A/B Bonds and the Indenture are subject to bankruptcy, insolvency, arrangement, fraudulent conveyance or transfer, reorganization, moratorium and other laws relating to or affecting creditors' rights, to the application of equitable principles, to the exercise of judicial discretion, and to limitations on legal remedies against public entities.

The opinions rendered in this letter are stated only as of this date, and no other opinion shall be implied or inferred as a result of anything contained in or omitted from this letter. Our

engagement as co-bond counsel with respect to the Series 2018A/B Bonds has concluded on this date.

Very truly yours,

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Presented and Approved: April 5, 2018
**SUBJECT: Approval to Execute Contract No. 150220, Fort Myer
Construction Corporation**

#18-33
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on April 5, 2018 upon consideration of a non-joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Contract No. 150220, Fort Myer Construction Corporation.

Be it resolved that:

The Board of Directors hereby authorizes the Interim General Manager to execute Contract No. 150220, Fort Myer Construction Corporation. The purpose of the contract is to provide construction of Division PR-A1-Potomac River Project A1 (G1) in support of DC Clean Rivers Project. The contract amount is \$6,265,502.47

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

CONSTRUCTION CONTRACT

**Division PR-A1 – Potomac River Project A1 (GI)
(Non-Joint Use)**

Approval to execute a construction contract for \$6,265,502.47

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Fort Myer Construction Corporation 2237 33 rd Street, NE Washington, DC 20018 (CBE)	CBE Eligible Amounts: Total Eligible \$5,129,342.47 CBE* Total \$5,114,342.47 See Attachment A for List of firms.	99.7%

*Based upon the Green Infrastructure (GI) Memorandum of Understanding with the District of Columbia, this contract shall utilize best efforts to maximize Certified Business Enterprise (CBE) participation, with a goal that at least 50% of the dollar amount of this contract be awarded to CBEs. No Federal funding (i.e. EPA) will be used for this contract.

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	\$ 6,265,502.47
Contract Time:	320 Days (0 Years, 10 Months)
Anticipated Contract Start Date (NTP):	04-30-2018
Anticipated Contract Completion Date:	03-16-2019
Bid Opening Date:	02-14-2018
Bids Received:	3
Other Bids Received	
Anchor Construction Corporation	\$ 8,984,628.00
Corman Kokosing Construction Company	\$10,010,290.00

Purpose of the Contract:

Provide construction of Division PR-A1 – Potomac River Project A1 (GI) in support of DC Clean Rivers Project.

This work is required by a Consent Decree.

Contract Scope:

- Construct Green Infrastructure (GI) practices located in the public Right of Way (ROW) to manage 1.2” of rain falling on the equivalent of approximately eight (8) impervious acres within the Potomac River sewershed

Federal Grant Status:

- Construction Contract is not eligible for Federal grant funding assistance.

