



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
282nd MEETING OF THE BOARD OF DIRECTORS
Thursday, January 6, 2022
9:30 a.m.
via Microsoft Teams**

The board meeting can be live-streamed at <https://dcwater.com/watch-board-meetings>

- I. **Call to Order (Chairperson Tommy Wells)**
- II. **Roll Call (Linda Manley, Board Secretary)**
- III. **Approval of the December 2, 2021 Meeting Minutes**
- IV. **Chairman's Overview**
- v. **Committee Reports**
 1. **Finance and Budget Committee (Anthony Giancola)**
 2. **Environmental Quality and Operations Committee (Howard Gibbs)**
- VI. **Issues of General Interest**
- VII. **CEO/General Manager's Report (David Gadis)**
- VIII. **Contract Summary (FYI)**
- IX. **Consent Items (Joint Use)**
 1. **Approving the Final Form of Certain Documents, Authorizing Exchange/Tender Offer and the Sale and Setting Terms and Details of the Series 2022B, Series 2022C, and Series 2022D Bonds – Resolution No. 22-00 (Recommended by the Finance and Budget Committee 12/14/21)**
 2. **Approving the Final Form of Certain Documents Authorizing the Sale and Setting Terms and Detail of the Series 2022E Bonds – Resolution No. 22-01 (Recommended by the Finance and Budget Committee 12/14/21)**
 3. **Approval of 2022 Amended Revised “Statement of Investment Policy” - Resolution No. 22-02 (Recommended by the Finance and Budget Committee 12/14/21)**
 4. **Approval to Publish the Notice of Final Rulemaking to Amend DC Water's Local Limits and Non-Wastewater Flow Regulations. - Resolution No. 22-03 (Recommended by the Environmental Quality and Operations Committee 12/16/2021)**

X. Consent Items Non-Joint Use

1. [Approval to Execute Change Order No. 001 of Contract No. 190020, Anchor Construction Corporation - Resolution No. 22-04](#) (Recommended by the Environmental Quality and Operations Committee 12/16/2021)
2. [Approval to Execute Contract No. 180030, Spinello Companies - Resolution No. 22-05](#) (Recommended by the Environmental Quality and Operations Committee 12/16/2021)
3. [Approval to Execute Contract No. 10140, RedZone Robotics, Inc. – Resolution No. 22-06](#) (Recommended by the Environmental Quality and Operations Committee 12/16/2021)
4. [Approval to Participate in the District Department of Transportation’s \(DDOT\) Project to Reconstruct Martin Luther King Jr., Ave., SE Phase II from South Capitol Street, SE to 4th Street, SE Under the MOU between DDOT and DC Water under the 2002 Memorandum of Understanding – Resolution No, 22-07](#) (Recommended by the Environmental Quality and Operations Committee 12/16/2021)

XI. Executive Session

XII. Adjournment (Chairperson Tommy Wells)

Upcoming Committee Meetings – (via Microsoft Teams)

- Governance Committee, Wednesday, January 12th @ 9:00 a.m.
- Human Resource and Labor Relations Committee w/Union Presidents, Wednesday, January 12th @ 11:00 a.m.
- Environmental Quality and Operations Committee – Thursday, January 20th @ 9:30 a.m.
- DC Retail Water and Sewer Rates Committee – Tuesday, January 25th 9:30 a.m.
- Joint Meeting of DC Retail Water and Sewer Rates and Finance and Budget Committees Tuesday, January 25th @ 10:15 a.m.
- Finance and Budget Committee – Tuesday, January 25th at 11:00 a.m.
- Audit Committee – Thursday, January 27th @ 9:30 a.m.

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)(2); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4)(A); 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); train and develop members of a public body and staff under D.C. Official Codes § 2-575(b)(12); 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.



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

Board of Directors

Finance and Budget Committee

Tuesday, December 14, 2021

9:30 a.m.

MEETING MINUTES VIA MICROSOFT TEAMS

Committee Members

Anthony Giancola, Chairperson
David Franco
Sarah Motsch
Jared McCarthy
Joe Leonard, Jr.

DC Water Staff

Matthew T. Brown, CFO & EVP, Finance and Procurement
Lola Oyeyemi, Director, Budget
Ivan Boykin, Director, Finance
Matt Ries, Director, Sustainability and Watershed Management
Linda Manley, Secretary to the Board

Other Presenters

Eric Brown, PFM Financial Advisors LLC
Nelson Bush, PFM Asset Management LLC

Call to Order

Chairperson Anthony Giancola called the meeting to order at 9:30 a.m.

November 2021 Financial Report

Ms. Lola Oyeyemi, Budget Director, provided the financial report for the first two months of FY 2022. As of the end of November 2021, with 16.7 percent of the fiscal year completed, operating revenues were \$186.3 million, or 23.3 percent of budget, operating expenditures were \$86.9 million, or 13.2 percent of budget, and capital disbursements were \$43.3 million, or 7.6 percent of budget.

Ms. Oyeyemi informed the Committee that DC Water received the Certificate of Achievement for Excellence in Financial Reporting for the fiscal year ended September 30, 2020. She congratulated Mr. Genes Malasy, Controller, and the entire Finance team for achieving this award. The FY 2021 year-end audits are currently underway with anticipated completion of the Financial Statements in December 2021 and anticipated completion of the A133 Audit and Comprehensive Annual Financial Report in January 2022. She also stated that the Proposed FY 2023 Budget is anticipated to be presented to the Board for review on January 6, 2022, and will include the two-year rate proposal for FY 2023 and FY 2024.

Ms. Oyeyemi provided the rest of the financial report by exception. She informed the Committee that revenues had no major variances this month except for the slight increase in consumption in the Commercial and Municipal customer categories. Operating expenses were consistent with prior year spending. Capital disbursements were \$43.3 million and detailed project performance will be provided by the Engineering Department in next month's meeting.

Ms. Oyeyemi reported that the total cash was \$516.2 million at the end of November. This is comprised of the operating cash balance of \$312.0 million, including the Rate Stabilization Fund (RSF) of \$46.1 million, and the remaining balances of the unrestricted (\$150.8 million) and restricted (\$53.5 million)

reserve accounts. Delinquent accounts were at \$27.2 million for 9.9 percent of total customer accounts at the end of November.

Operating Budget Cost Drivers

Ms. Oyeyemi provided an overview of the annual budget process and highlighted major expenditure drivers and customer rates. She noted that the annual budget will be delivered to the Board on January 6, 2022, and will include a two-year rate proposal for FY 2023 and FY 2024. The various Board Committees will have a two-month review window with final recommendations in February 2022 and budget adoption by the full Board in March. The rate proposal portion will then undergo an extensive public process prior to recommendations being sent to the Board for review and approval by the Retail Rates Committee. Ms. Oyeyemi advised that only Board members from DC that are on the Retail Rates Committee will be reviewing and approving rates.

Ms. Oyeyemi reviewed the components of the FY 2022 budget which includes the core operational expenses of 57 percent, debt service of 39 percent and payments to the District of 4 percent of the overall budget. She went on to review the fixed and variable cost components of the operating budget, stating that 73 percent of core operations and maintenance (O&M) costs are fixed. This includes personnel costs, chemicals, and electricity driven by market conditions and water purchased from the Aqueduct. She also highlighted that the expenditure growth is largely for the debt service costs to support capital improvements, including the Clean Rivers Program. From FY 2016 to FY 2021, debt service cost increased by 37 percent while core operations and maintenance costs have increased at an average of 2.5 percent per year.

Ms. Oyeyemi highlighted that there have been \$30.6 million in annual savings and avoided costs due to operational initiatives and process improvements in recent years. These include \$20 million in reduced waste hauling and energy purchases resulting from the Digesters and Combined Heat and Power Facilities; \$1.1 million in savings from implementation of a Cloud Based Oracle ERP system; \$0.8 million savings from optimization of materials and inventory operations; and \$8.7 million in re-negotiated multi-year contracts during FY 2021. She noted without these initiatives, our customer rates would be approximately 5.9 percent higher.

In response to Mr. Giancola's question regarding the upcoming public hearings, Mr. Matthew Brown, Chief Financial Officer and EVP, Finance and Procurement responded that he believes some components will again be virtual, due to the success of the previously held virtual public meetings. Mr. Giancola also asked if Blue Drop has contributed to the savings or cost avoidance particularly with the biosolids hauling. Mr. Brown confirmed that the savings were in waste hauling services and planned to provide a report with the details of Blue Drop's cost savings. Next, Ms. Oyeyemi reviewed the risks and mitigation strategies. She stated that there might be budget pressures in chemical and electricity costs due to current market volatilities and supplies chain issues and that management is closely monitoring these cost categories.

Next, Mr. Brown reviewed rates and water usage trends. He stated that DC Water is a cost recovery organization, and the rates are based on how much the organization spends or plans to spend to provide its services. He noted that in large part rates are based on water consumption. Some of the challenges facing DC Water and other cities across the country are the decline in water usage and aging infrastructure. Mr. Brown further explained that the rates set forth in the financial plan are driven by the

decline in water usage in the District. He noted that between FY 2017 and FY 2019, water consumption has declined by an average of two percent per year. He further explained that without the rate increases, it would not be feasible to have the necessary revenues to recover the costs needed to provide services to our customers.

Mr. Brown also provided a comparison of water rates to property tax rates in the District. He explained that even if property taxes are at a fixed rate and not adjusted, revenues can increase based on the increase in the property value. He went on to present the rate projection increases of 6.7 percent for FY 2023 and 8.8 percent for FY 2024. Mr. David Franco requested clarification on whether these rates were consistent with what was projected in prior years for FY 2021, FY 2022, and FY 2023. Mr. Brown confirmed that they were in fact the same and the forecast for 2023 and 2024 did not change.

Next, Mr. Brown discussed the multi-year rate plan considerations and explained that the fastest growing expenditure category is debt service at an average of about 6.5 percent per year since 2016. He stated that DC Water presents rates as they are needed to recover operating expenditures and support CIP, along with forecasted operating expenditures. He also emphasized the fact that the customer assistance program (CAP) is factored into consideration for the multi-year rate plan that is submitted with the financial plan.

In closing, Ms. Oyeyemi highlighted the major initiatives that are being undertaken by the Authority, which include the Blueprint 2.0 update, LeadFree DC, Small Diameter Water Main replacement, and the Methanol reduction program. She reiterated the next steps of the rate process with the delivery of the Proposed FY 2023 budgets in January 2022 and subsequent budget adoption in March 2022.

Recommendation to Approve New Investment Policy

Mr. Ivan Boykin, Director of Finance, stated that the purpose of the presentation is to respond to questions from the November 2021 Finance and Budget Committee meeting and seek the Committee's recommendation to the Board for approval of a revised Investment Policy. Mr. Boykin stated DC Water transferred \$41.6 million from the Rate Stabilization Fund to the cash balance to be invested with PFM Asset Management, consistent with the Investment Policy.

Next, Mr. Boykin provided background to the Investment Policy by stating, the current investment policy was adopted in May 2014, and discussed DC Water's Investment Objectives to include safety, liquidity, and return on investments, which are consistent with other governmental entities and water and wastewater utilities.

Mr. Boykin proceeded to discuss DC Water's Cash Reserves. He mentioned the indenture requirements for 60 days of operating reserves of \$55 million and Renewal and Replacement reserve of \$35 million. He also stated DC Water's cash reserves help protect our bond rating which lowers borrowing costs and provides lower rates for our customers. He reviewed the summary of DC Water's investment criteria highlighting that any major losses to our portfolio due to major market swings in our portfolio could jeopardize our bond rating. He concluded with a discussion on investment earnings stating both operating and capital interest over the past five years from FY 2017 to FY 2021, totaled \$28 million.

Mr. Nelson Bush, PFM Asset Management LLC (PFM), addressed the questions asked at the Finance & Budget Committee meeting in November 2021. In response to a question on the amount of DC Water's cash reserves that are discretionary, Mr. Bush stated that those funds are set aside for a specific purpose

for example, the Rate Stabilization Fund and Days of Cash on Hand, among others. The question was asked if there is an opportunity to invest in the local economy and if DC Water could include ESG (Environmental, Social, and Governance) considerations in its investment policy. Mr. Bush explained that there is a segment in the portfolio that is already committed to a local, minority owned bank here in DC and stated that PFM Management has had conversations with Mr. Brown and Mr. Boykin about how an ESG policy overlay could be applied to the investment portfolio.

In response to follow-up questions regarding what risks are associated with the proposed changes to the Investment Policy and what should DC Water expect as reasonable interest rate earnings based on the change in our Investment Policy and investment strategy, Mr. Bush provided a sensitivity analysis, along with historical benefit of increased durations. He stated the recommendations extends our investment duration from a 1-3 year strategy to a 1-5 year strategy where we look to generate an additional \$400K of interest earnings based on historical look back of the past 10 years.

Mr. Boykin concluded the presentation by reiterating earlier points in the presentation for all recommendations in the revised Investment Policy and asked the Committee to recommend to the Board the adopted revised Investment Policy.

Environmental, Social, and Governance (ESG) Report

Mr. Matthew Brown, Chief Financial Officer and EVP, Finance and Procurement expressed appreciation to members of the Finance and Budget Committee in supporting management's efforts. He stated that DC Water has been a leader in the industry in the way we fund our infrastructure from our first Green Bonds in 2014, Environment Impact Bond, annual Green Bond report, new Green Bond Framework and now the first ESG Report. He also commended Dr. Matt Ries, Ms. Clarissa Barrett and members of the Finance team for their collaborative efforts in producing this inaugural report. He explained that the report presents DC Water's story about sustainability, resilience, where we are, where we need to be, and aligns with the goals in the Blueprint 2.0.

Dr. Matt Ries, Director, Strategic Leadership & Sustainability, explained the background and drivers for an ESG Report noting that DC Water will be the first water utility to issue an ESG Report. The ESG Report will be an annual report as investor demand for transparency of DC Water's risks and opportunities. ESG Reporting is one part of DC Water's response to investor input and rating agency advice, which includes adopting Green Bond Framework in October 2021, producing an ESG Report in November 2021, and currently adding new measures in annual Green Bond report.

Dr. Ries further noted that there is no standard for ESG framework reporting and DC Water has chosen to use Sustainability Accounting Standards Board (SASB). He reviewed the timeline discussing the chronological series of events related to the ESG Report. He noted that in January 2022, the ESG Report will be shared with investors, underwriters, rating agencies and others. During the production of the ESG Report DC Water received a lot of good content from staff and a preliminary meeting with Goldman Sachs provided an end user perspective to see if we are going in the right path. A report will be sent to the Board and will be available on a dedicated webpage on DC Water's website.

Next, Dr. Ries presented the approach and stated the strategic linkage between our ESG Report and Blueprint 2.0. He concluded his presentation by providing a timeline for the report distribution and next steps.

2022 Bond Transaction and Market Update and Approval

Mr. Eric Brown, Director, PFM Financial Advisors, LLC, stated the purpose of his presentation is to update the Committee on the upcoming bond transaction and to seek their recommendation to the full Board for approval. He stated municipal tax-exempt rates are at or near the lowest they have been over a 30-year time horizon across most of the curve, and stated it is a good time to come to market with an issuance.

Mr. Brown summarized the request for authorization to issue up to \$400 million in subordinate lien revenue bonds to fund Capital Improvement Program projects, Washington Aqueduct projects, and obtain permanent funding for outstanding commercial paper related to Environmental Impact Bond (EIB). The bonds will be issued in a fixed-rate piece and a variable-rate piece. Goldman Sachs (Senior Manager Fixed Rate), Ramirez Co (Co-Senior Manager Fixed Rate), Citi (Co-Manager Variable Rate) and RBC Capital Markets (Co-Manager Variable Rate) have been selected to lead the underwriting groups for Series B/C/D and Series E (multimodal).

The plan of finance will include \$200 million (tax-exempt fixed and variable rates) designated for general Capital Improvement Plan (CIP), \$100 million (tax-exempt fixed rate) for the Clean Rivers project, \$75 million (taxable fixed rate) for capital projects at the Washington Aqueduct, and \$25 million (tax-exempt fixed rate) to retire commercial paper used to repay Environment Impact Bond. Bonds issued in support of Clean Rivers will be independently certified as Green Bonds. He explained the benefits and risks related the multimodal bond structure for Series 2022 E, stating DC Water has issued multimodal bonds several times in the past (2012, 2016, and 2019), where the multimodal issues have been the lowest-cost debt in DC Water's portfolio which has served to drive down the weighted average cost of capital.

Mr. Brown addressed the rise in total debt service costs and projections that show continued increases as a result of increased borrowing to support the CIP. He noted DC Water's debt service costs have increased at an average of 6.5 percent each year since FY 2016, despite programmatic efforts to manage debt service costs.

Mr. Brown also presented information on a preliminary refunding plan of finance in the form of a taxable advance refunding. At current rates, DC Water can refund the 2014 C Bonds to generate net present value savings of \$45 million, which would exceed the minimum refunding threshold per Board policy and authorizing resolution. The level of savings structure contemplated could generate savings from FY 2022 to FY 2044. The refunding is relatively sensitive to interest rate changes, so the savings associated with this component would not be known with any certainty until the pricing date. Finally, it was noted that refunding bonds on a taxable basis means that DC Water will forgo potential opportunity to realize greater savings later when eligible to refund on a tax-exempt basis. However, this current refunding has extremely strong economics and reduces DC Water's interest rate risk. This base case refunding plan of finance will be enhanced with a tender/exchange that can result in incremental savings.

Action Items

The Committee members agreed to move the following action items to the full Board:

- A. Recommendation for Approval of Revised Statement of Investment Policy
- B. Recommendation for Approval of Series 2022B/C/D and Series 2022E Bond Resolutions and Related documents
 1. Resolution (Series 2022B/C/D)
 2. Resolution (Series 2022E)
 3. 30th Supplemental Indenture (Series 2022B/C)
 4. 31st Supplemental Indenture (Series 2022D)

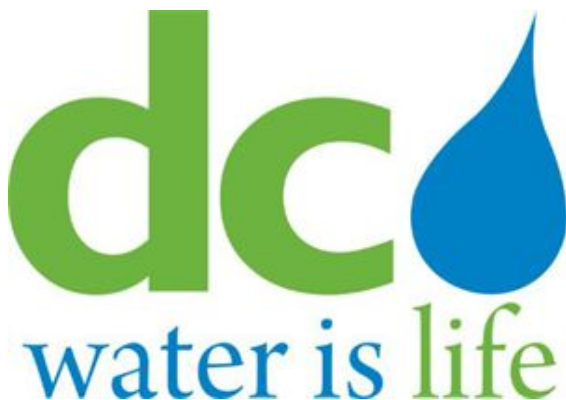
5. 32nd Supplemental Indenture (Series 2022E)
6. Bond Purchase Agreement (Series 2022B/C/D)
7. Bond Purchase Agreement (Series 2022E)
8. Dealer Manager Agreement (Series 2022C)
9. Escrow Agreement (Series 2022D)
10. Remarketing Agreement (Series 2022E)

Adjournment

Hearing no further business, Chairperson Anthony Giancola adjourned the meeting at 10:41 a.m.

Follow Up Items

1. Provide cost savings analysis related to Blue Drop's biosolids hauling services. **(Mr. Giancola)**



**District of Columbia
Water and Sewer Authority**

Board of Directors

**Environmental Quality and Operations
Meeting**

Thursday, December 16, 2021

9:30 a.m.

MEETING SUMMARY

Committee Members

Howard Gibbs, Vice Chairperson
Ivan Frishberg
Andrea Crooms
Steven Shofar
Christopher Herrington

DC Water Staff Present

David Gadis, CEO & General Manager
Marc Battle, EVP, General Counsel
Matthew Brown, EVP, Chief Financial Officer
Linda Manley, Secretary to the Board
Aklile Tesfaye, VP, Wastewater Operations
Joel Grosser, Director, Procurement Good and Services
Elaine Wilson, Manager, Water Quality & Pretreatment
Marlee Franzen, Senior Manager, Water Operations
Maureen Schmelling, Director, Water Quality
Jason Hughes, VP, Water Operations
Salil Kharkar, Senior Technical Advisor to COO

I. CALL TO ORDER

Mr. Howard Gibbs called the meeting to order at 9:30 a.m. The meeting was conducted via Microsoft teams. Christopher Herrington was welcomed to the EQ and Ops Committee as a new Principal Board Member representing Fairfax County, VA.

II. ROLL CALL

Ms. Linda Manley, Secretary to the Board, DC Water, conducted a rollcall of the Committee members present for the meeting.

III. AWTP STATUS UPDATE

1. BPAWTP PERFORMANCE

Mr. Aklile Tesfaye, VP, Wastewater Operations, DC Water, briefed the Committee on the performance of the Blue Plains Advanced Wastewater Treatment Plant (BPAWTP). Specific details of the report can be found on pages three to seven of the EQ Ops Meeting package 12.16.2021 (subsequently will be referred to as “meeting package”) posted on the DC Water website. The notes below abbreviate key topics discussed during the meeting.

Mr. Tesfaye highlighted the accomplishments of staff in the department of maintenance who coordinated and attended training on best practices for maintenance of rotating mechanical equipment. The training was conducted by an equipment manufacturer and attended by DC Water mechanics, mechanical foremen and technicians. The training is part of DC Water's objective of improving the reliability and extending the service life of its asset's.

Mr. Tesfaye reported that all performance parameters for November 2021 were excellent with a 100% capture rate, and all operational and effluent parameters were within the permit limits.

The electrical energy use and generation was discussed. Energy generation onsite for the month was 27.3% of the total consumption at BPAWTP, which is above the goal of 20% per month.

Mr. Tesfaye also discussed biosolids production at BPAWTP, noting that during November all biosolids met Class A Exceptional Quality (EQ) requirements required by the EPA.

IV. PROPOSAL TO AMEND REGULATIONS TO REVISE PRETREATMENT DISCHARGE STANDARDS AND NON-WASTEWATER FLOW REQUIREMENTS

Ms. Elaine Wilson, Manager, Water Quality & Pretreatment briefed the Committee on the proposal to amend regulations to revise pretreatment discharge standards and non-wastewater flow requirements as presented to the Committee meeting at the at the September meeting. Ms. Wilson discussed the background of the need for the proposed changes and summarized details of the schedule for adoption of the changes as required by the EPA.

Ms. Wilson discussed details of the proposed changes to the discharge standards and non-wastewater flow requirements, noting that where dischargers are anticipated to not be able to meet revised discharge limits, education campaigns will be conducted to target these dischargers and pollutant sources. Efforts to notify the public of the proposed changes were discussed, the notice of proposed rulemaking was published in October 2021 and the period for public comment closed in November 2021, no comments were received on the proposed changes.

The Committee inquired how DC Water knows that non-permitted industrial/commercial dischargers may not be able to meet the new molybdenum limit. Ms. Wilson clarified that discussions have been held with some of these dischargers.

The Committee inquired about the timeframe to update DC Code 8-105.06 to allow the proposed change related to the linear dimension of solids discharged into the system to take effect. Marc Battle, EVP, General Counsel clarified that it could take up to 4 months to amend the code. Ms. Wilson confirmed that the time required to update the code will not affect the schedule to adopt the proposed regulations by February 3, 2022.

The Committee recommended forwarding the action item to the full Board for approval.

V. POTOMAC INTERCEPTOR (PI) MH31/MH30

No discussion held.

VI. ACTIONS ITEMS:

Specific details of the report can be found on pages 30 to 40 of the meeting package. The notes below list the action items and highlight key topics discussed during the meeting.

JOINT USE

No Joint Use items discussed.

NON-JOINT USE

1. Contract No.: 10140 – Sewer Inspection Services, RedZone Robotics
2. Contract No.: 180030 - Small Diameter Water Main Replacement, Spiniello Companies
3. Contract No.: N/A – Martin Luther King Jr. Avenue, SE Phase II - From South Capitol Street, SE to 4th Street, SE DC, Inc., DDOT
4. Contract No.: 190020 - Sanitary Sewer Lateral Replacement Contract for FY20 – FY22, Anchor Construction Corporation

Mr. Salil Kharkar, Senior Technical Advisor to COO presented all non-joint use action items.

ACTION ITEM HIGHLIGHTS:

For Non-Joint use action item 1, Mr. Kharkar noted that there was only one bidder. Procurement conducted extensive outreach and only one other capable bidder was identified, however it was decided to go with this bidder.

For Non-joint use action item 3, it was noted that DC Water can save up to \$150/LF in costs for on small diameter water main replacement projects when participating in DDOT reconstruction projects. The reduced costs are due to savings on pavement restoration, which are covered by DDOT as part of the terms of the 2002 Memorandum of Agreement (MOA).

The Committee recommended all Non-Joint Use Action Items to the full Board.

VII. WATER OPERATIONS UPDATES

FIRE HYDRANTS

Ms. Marlee Franzen, Senior Manager, Water Operations, DC Water, briefed the Committee on the status of DC Water's fire hydrants. Ms. Franzen noted that DC Water is below the 1% out-of-service service level established in the Memorandum of Understanding (MOU) with the District of Columbia Fire and Emergency Medical Services Department (DC FEMS).

Ms. Franzen informed the Committee that a foreman responsible for fire hydrant and inspection repairs passed away during October. The efforts of water operations staff who stepped in to continue the work of the fire hydrant program were recognized.

WATER QUALITY

Ms. Maureen Schmelling, Director, Water Quality, DC Water, briefed the Committee on the status of EPA Drinking Water Regulated Monitoring for November 2021. Ms. Schmelling reported that there was one positive total coliform result from samples collected as part of the EPA total coliform sampling for the month and the sample was negative for E. coli. Ms. Schmelling noted that results

for the Lead and Copper rule (LCR) sampling remain low at 2.6 ppb for the 90th percentile for the first draw sample, which is below the action level of 15 ppb.

Ms. Schmelling noted that the EPA plan to implement the proposed LCR revisions, staff in the department of water quality continue to evaluate how the revisions will likely impact DC Water.

VIII. OTHER BUSINESS / EMERGING ISSUES

None.

IX. EXECUTIVE SESSION

No Executive Session held.

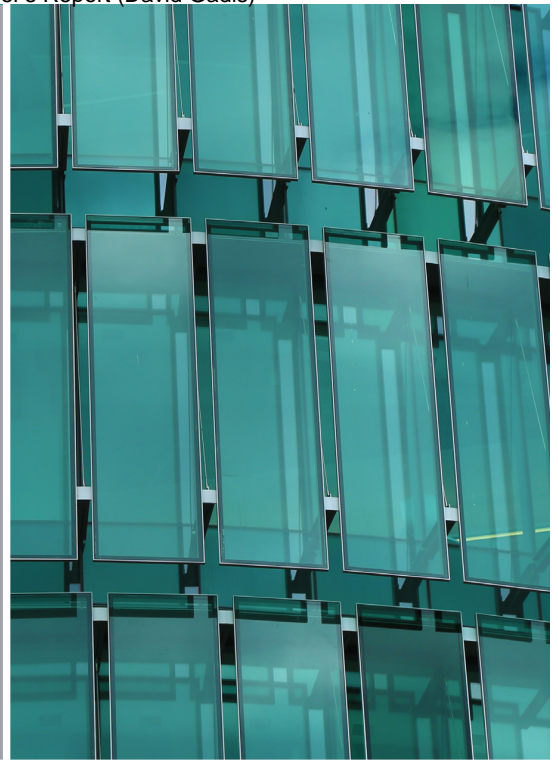
X. ADJOURNMENT

Meeting was adjourned at 10:05AM.



CEO's Report

JANUARY
2022



ACCOUNTABILITY TRUST TEAMWORK CUSTOMER FOCUS SAFETY WELL-BEING

Inside

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dc Highlights

Chairman Wells and members of the Board, first let me wish all of you a very Happy New Year. It has been a pleasure working with you over the course of the last year and I look forward to our continued partnership and success in 2022.

I am pleased to present the highlights from the Authority's work over the past month, including reports from our Finance and Procurement; Shared Services; Customer Experience; IT; and Operations and Engineering divisions.



Resilience and Readiness

Innovation

A new innovation project kicked off on December 13 to test and validate new technology involving sensors, Artificial Intelligence, & Machine Learning that, when combined, will allow Water Operations to detect, size, and locate leaks in water pipes in new ways. Should the new technology be proven to work, this capability will allow us to: (1) proactively address pipe and value issues, (2) reduce the loss of non-revenue water, and (3) minimize public disruption due to excessive pipe leaks.



DERA Grant Provides Funding for 12 Biodiesel Fleet Vehicles

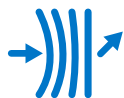
Through the U.S. Environmental Protection Agency's (EPA) Diesel Emissions Reduction Act (DERA) program, DC Water has secured funding to purchase several new vehicles that operate using B100 biodiesel fuel. B100 biodiesel fuel will help the Authority reduce CO2 emissions from heavy-duty vehicles by 90%. B100 fuel also reduces other harmful pollutants, irritants and carcinogens linked to petroleum-based fuels.

Through a 2020 pilot program, and previous DERA award, the Authority already owns 19 B100 vehicles, and the new grant award will add up to 12 additional vehicles. I would like to recognize the efforts of Maureen Holman (Vice President / Shared Services) and Timothy Fitzgerald (Director, Fleet Management / Shared Services) in leveraging DERA funding to reduce our carbon footprint.

Authority Partners with Water Research Foundation

On Tuesday, December 7, I received word from **Maureen Schmelling** (Director, Water Quality / Water Services) that the Water Research Foundation (WRF) accepted a DC Water proposal to research non-invasive technologies capable of identifying pipe materials. The proposal was one of five chosen for 2021 research through the WRF's Tailored Collaboration (TC) program.

A technical advisory committee will review and accept project procedures and the next step will be for researchers to test their technology on pipe loops in Cleveland, Ohio before beginning field tests. I look forward to sharing updates as the research advances and congratulate Ms. Schmelling and her team for their successful proposal.



Resilience and Readiness continued

Preventive Maintenance Work on PEPCO's 69kV Power Feeder to Blue Plains

The power distribution system at Blue Plains receives power from PEPCO via two feeder cables that run under the Potomac River to the E C substation adjacent to DC Water's Main Substation at Blue Plains. Only one feeder is required to fully supply the 69kV power needed at the plant, but under normal operating conditions, both feeders are used to provide system redundancy.

During a two-day period, one feeder was removed from service to allow PEPCO to perform preventive maintenance and improve reliability of the feeder. During the outage, a single feeder was active to fully supply the required power while PEPCO implemented the planned work. To mitigate risks, DC Water scheduled the work during dry weather and implemented operational adjustments during the short-term outage. The availability of the tunnel as storage, if an emergency were to occur, provided further risk reduction. The work was successfully completed without impacting plant processes and systems or endangering compliance or public health. PEPCO resumed power supply through both feeders on November 30, as scheduled.

During the execution of these maintenance activities, the team identified repair needs at the main substation. Preparation for this work is already underway and expected to be scheduled within the next month. The execution of this repair will take approximately six hours and will require supplying power to the plant on a single feeder while the repair is performed by DC Water's High Voltage Shop. Appropriate mitigating measures will be in place to manage operational risks.



High Performing Team

Employee Town Hall Meetings (ETHM)

I had the pleasure of leading three Employee Town Hall Meetings (ETHM) to provide important updates and answer questions from Authority employees. These sessions featured a Health, Safe and Well moment, presented by the Department of Occupational Safety and Health (DOSH), an update on the implementation of Blueprint 2.0 from **Wayne Griffith** (Chief Strategy and Performance Officer and EVP), the debut of our 2021 Holiday Inclusion video and an engaging, live Q&A session with attending employees. The final ETHM, held at HQO, was also made available as a virtual Teams meeting, with live broadcasts available for employees stationed at Bryant Street and Blue Plains. Overall, more than 700 employees participated in one of the three sessions and a video recording was made to share with staff unable to attend.



dc Highlights



High Performing Team continued

Rudy Gonzalez Honored by ACEC Metropolitan Washington

On Wednesday, December 8, the American Council of Engineering Companies, Metropolitan Washington chapter (ACEC / MW), honored Rudy Gonzalez (Director, Procurement Capital Programs / Finance and Procurement) with the 2021 Engineering Industry Leadership Award at their annual Engineering Excellence Awards Gala.

In a press release on the award, ACEC / MW stated “[Mr. Gonzalez] has been a leader and strong proponent for using Qualifications-Based Selection (QBS) procurement methods at DC Water and has been instrumental in engaging and exchanging ideas to benefit firms and small businesses. We commend his professionalism and contribution to the engineering industry.” Congratulations to Rudy on this impressive honor and well-deserved recognition..



Crowdsourcing Tool

<p>Flexible Working Hours 🔥</p> <p>Chris.Lee 07/Oct/21 12:53 PM</p> <p>Work anywhere and anytime to increase productivity.</p> <p>3</p>	<p>Vibration Analysis sensors on ACs 🔥</p> <p>hari.kurup 07/Oct/21 12:52 PM</p> <p>Help to collect equipment health to see the current PM cycle is needed</p> <p>1</p>	<p>B'fast & Lunch Service for HQO 🔥</p> <p>robert.bornhofen 07/Oct/21 12:49 PM</p> <p>Once the workforce returns to HQO, there will be many hungry employees in need of nourishment. But our options are limited.</p> <p>Propose rotating food trucks to service HQO. Also, want to have employees rate the food trucks to en-</p>
<p>Composting Food Waste 🔥</p> <p>sharon.bocalig 07/Oct/21 12:47 PM</p> <p>Is this feasible, are you all interested in this?</p> <p>Refinement 1 of 10 Questions Answered</p> <p>Refine</p>	<p>DMB Backlog Prioritization Tool 🔥</p> <p>Anjali Gupta 07/Oct/21 12:34 PM</p> <p>A tool to help DMB team prioritize low priority backlog and identify work orders by proximity to each other to increase efficiency and crew productivity. This tool will ultimately drive down our backlog and increase DCW savings.</p>	

The selection of a new idea capture tool called IdeaScale to enable greater engagement among employees, the community, and partners. This powerful tool allows us to “crowdsource” a diverse range of individuals from which to identify and act on great ideas across all divisions (Water, Sewer, & Wastewater Treatment, etc.). The aim is to address key challenges that lead to new and improved capabilities. By making it easier for others to submit, comment, and vote on ideas, we strengthen our ability to solve problems with solutions that enable Blueprint 2.0 realization.

dc Highlights



High Performing Team continued

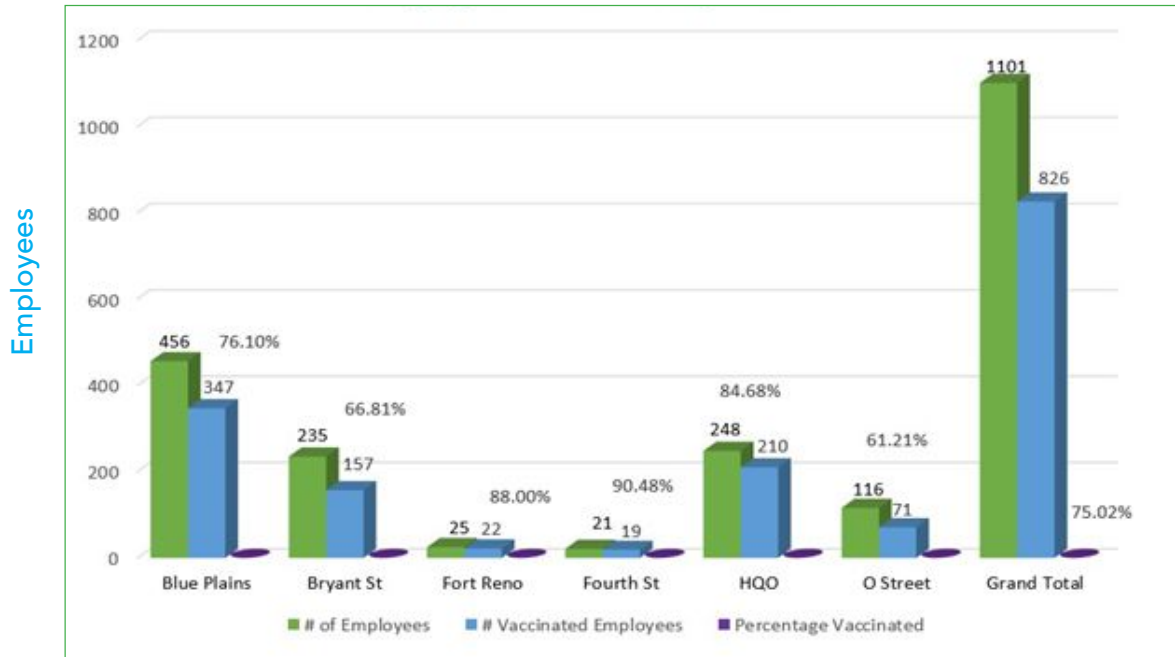


Healthy, Safe, and Well

The number of verified vaccinations (includes employees who completed the survey or showed copy of their vaccination card to their supervisor or a member of People and Talent) is steadily rising. We are now up to 826 vaccinated employees, representing 75.02% of our workforce.

Also, as we move through this pandemic, we continue to see low percentages of employees who have tested positive. The year-to-date results are 7.17%.

DC Water – Employee vaccinations by location compared to total



dc Highlights



Stakeholder Engagement

Potomac River Tunnel Project Update

The Clean Rivers Project recently briefed stakeholders on the upcoming Potomac River Tunnel Project's Advanced Utility Construction Phase (PRT-A). Construction will begin in early-2022.

The project team presented to ANC 2C01 Commissioner Shankle, ANC 2E05 Commissioner Palmer, the Georgetown BID, ANC 2A04 Commissioner Barbisch, ANC 2A01 Commissioner Omictin, ANC 6D07 Commissioner Daniels, the Ward 2 MOCRs, and Ward 2 Councilmember Pinto's Office. The Clean Rivers Project staff and the contractor, Anchor Construction, also hosted a Pre-Construction Community Meeting on December 9.



Additionally, there is a project website, a project email distribution list, and a 24/7 project hotline (202-448-9040). The Clean Rivers Project will continue to provide the community with construction notifications via additional meetings throughout the project. PRT-A will be completed by the Spring of 2023.

Residents Express Concern Over CIPP Lining in Soapstone Valley Project

At a public meeting on December 7, hosted by the ANC, many attendees echoed the concern raised in a recent opinion post on the Forest Hills Connection blog. At issue is the use of styrene and other compounds that are discharged with the steam while curing the Cured In Place Pipe (CIPP). The author of the post had proposed using ultraviolet (UV) light in the past as the recommended curing method.

The project documents intentionally were not specific to any one method and left selection of the curing method up to the winning bidder, including construction safeguards to protect the public. The key issue here was selection of a method that would comply with the National Park Service permit requirement for limiting tree destruction. Engineering review of contractors in the Mid-Atlantic region prior to bid reported only one contractor able to use the UV curing method. In the evaluation of the bids, this one contractor was disqualified for not conducting the required outreach to the certified business community and due diligence required by DC Water.

The selected contractors through the bid process and accounting for site access, opted for steam curing. The author published her post preceding the public meeting, expressing concerns with steam curing. The post influenced the residents and at the public meeting, there was an overall expression of concern regarding the selected CIPP curing method, and a lack of trust in DC Water taking residents' concerns into account. DC Water is in the process of listening to residents and will develop an air monitoring and communication plan that will address the specific issues raised. The Authority also had a conference call with DOEE and DOH to discuss the project and resident concerns and is presently evaluating mitigation measures including the feasibility of using hot water curing for this location and analyzing its impact on the limits of disturbance in the park. Once review of the residents' stated concerns is complete, the proposed path forward will be presented to DOEE and DOH as well as the residents in a public meeting.



Divisions

The CEO report now includes service level based key performance indicators for our operations divisions. These are indicators for which the teams have established or confirmed response and resolution times in which to perform the related work. This is assisting us in identifying productivity impacts related to COVID-19 and resource needs as well as benchmarking ourselves against other utilities. It is important to note that where teams may not meet the Service Level Targets set for a specific metric, it does not mean the work is not getting accomplished. The teams are doing a tremendous job despite the pandemic and continue to strive to meet a high bar of performance.

Financial Metrics

Metric	Target	Aug-21	Sept-21	Oct-21	Nov-21
Operating Cash Balance (millions \$)	\$235.6*	\$214.0	\$196.3	\$206.1	\$264.8
Delinquent Account Receivables (%)†	3.3%	4.6%	4.5%	4.6%	4.6%
On-time Vendor Payments (%)††	97.0%	93.0%	93.0%	94.0%	94.5%
Investment Earnings Data (Thousands \$)	\$2,234.0	\$3,092.0	\$3,433.0	\$160.0	\$214.6
Core Investment Yield Data (%) - Merrill Lynch 1-3 Year Treasury Index		0.2%	0.3%	0.5%	0.5%
Core Investment Yield Data (%) - Actual Monthly Yield	0.2%**	0.7%	0.6%	0.6%	0.6%
Short Term Investment Yield Data (%) - Merrill Lynch 3-Month Treasury Index		0.1%	0.0%	0.1%	0.1%
Short Term Investment Yield Data (%) - Actual Monthly Yield	0.1%**	0.1%	0.1%	0.1%	0.1%
Days of Cash on Hand	250.0***	333.0	329.0	371.0	390.0****

* The Operating Cash Balance target increased from \$185 million to \$235.6 million with the Board's adoption of new financial policies on October 7, 2021

** Represent annual Treasury Index targets developed and provided by the Authority's investment advisor, and compared to the Monthly Treasury Index and the Actual Monthly Yield

*** 250 days of cash represents the projection for annual days of operating reserves including the Rate Stabilization Fund

**** The 390 days of cash is made up of 58 days in the Rate Stabilization Fund and 332 days in the operating cash balance.

Metrics Explanations:

† Delinquent account receivables as a percentage of 12-month rolling average revenue. The delinquent account receivables increased due to the impact of COVID-19.

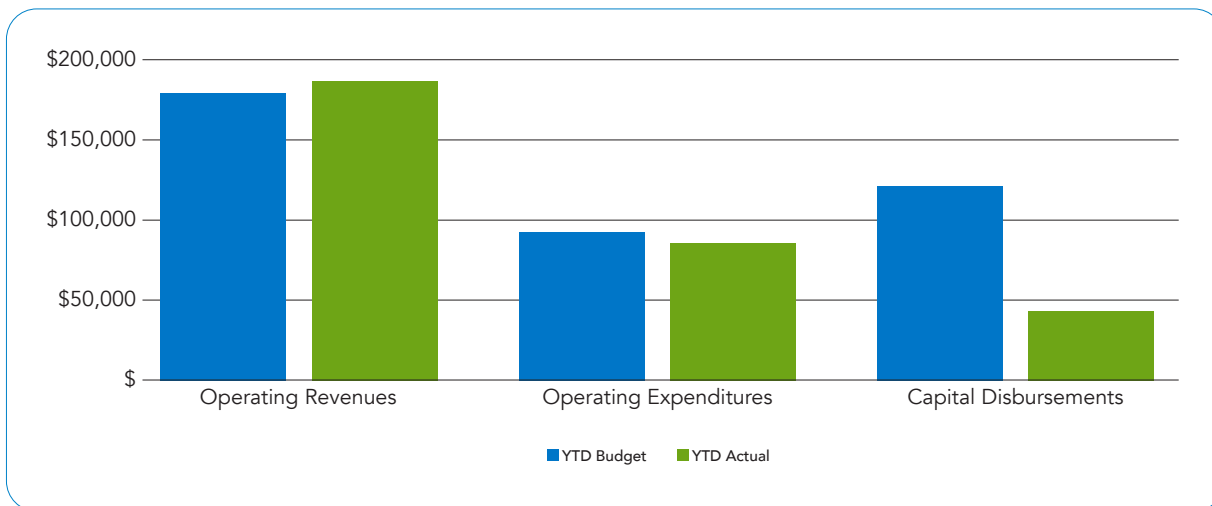
†† Vendor payments percentage is not at the desired target primarily due to performance related to the transition from the legacy system to the new system, which includes tolerance configuration (Materials Management invoices), retention invoices, or system entries (non-payment entries, e.g., ROCIP funding), and user training related to receipts issues.

Finance Highlights

FY 2022 Financial Performance

At this early stage in the fiscal year, DC Water is on track with budgetary expectations and targeted performance metrics. As of the end of November 2021, with 17 percent of the fiscal year completed, total operating revenues are \$186.3 million or 23.3 percent of the approved budget. Total operating expenditures are \$86.9 million or 13.2 percent and capital disbursements are \$43.3 million or 7.6 percent of the respective budgets.

FY 2022 Year to Date Performance Budget vs. Actuals (\$000's)



FY 2023 Budget Proposal

The Proposed FY 2023 operating, FY 2022 – 2031 Capital Improvement program, FY 2023 & 2024 rates and fees and FY 2022 – 2031 Financial Plan have been formulated. This budget proposal will be delivered to the Board of Directors during the Budget Workshop on January 6, 2022, immediately after the Board meeting. The proposed budgets and rates will be reviewed with the various Board Committees over a two-month process with budget adoption anticipated by the full board on March 3, 2022. Management and staff will then conduct extensive public outreach efforts which includes Townhall meetings in each ward in the District and public hearing activities.

Upcoming Bond Issuance

DC Water will be requesting approval from the Board in January 2022, to issue approximately \$400 million in tax-exempt and taxable subordinate lien revenue bonds to fund portions of the capital improvement program. There will be a dedicated series of fixed rate tax-exempt bonds for the clean rivers program. There will also be a dedicated series of fixed and variable rate tax-exempt bonds for the non-clean rivers program. With the current low interest rate environment, there may be an opportunity to refund a portion of our outstanding debt with a taxable refunding depending on municipal market conditions.

Rating Agency Meetings

With the upcoming bond issuance, DC Water will be hosting the rating agencies during the second week of January 2022. The rating agency attendees will include Standard & Poor's Global Ratings, Fitch Ratings, and Moody's Investors Services Incorporated.





Environmental Social and Governance (ESG) Annual Report

After meeting with a multitude of investors, investment bankers, and internal stakeholders, DC Water will be releasing its first ever ESG annual report in January 2022. To our knowledge, this is the first ever ESG report by a utility in the United States. This report will communicate our efforts towards environmental stewardship as a water and wastewater utility, providing the social aspects of exceptional service to all stakeholders, and having an efficient governance structure for DC Water to succeed.



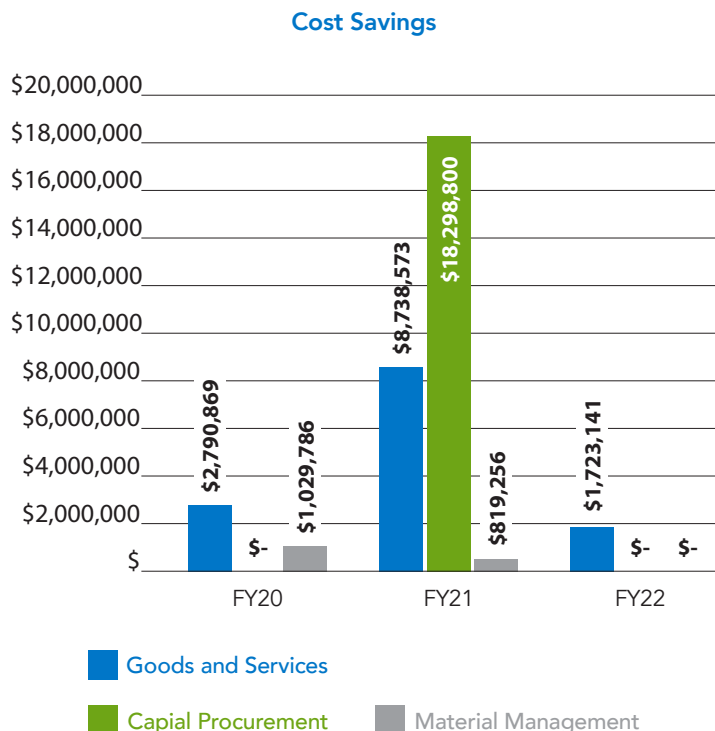
Procurement and Compliance

Key Compliance Activities:

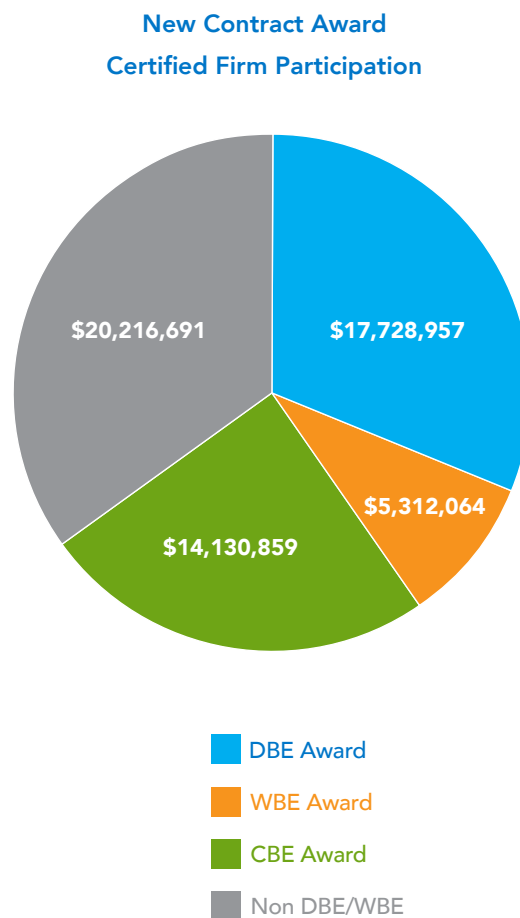
- DC Water received an award from the Department of Employment Services as an Outstanding Sponsor for the Apprenticeship Program.
- Participated as a Panelist for the National Association of Black Women in Construction Water Industry Day and the Billion Dollar Luncheon. Partnered with the DC Infrastructure Academy on the Education and Certification Panel and shared best practice to prepare applicants for DC Water’s Apprenticeship Program.
- Participated in DDOT’s Disadvantaged Business Enterprise Virtual Summit.
- Participated in the quarterly DC CAP Anchor Partnership Meeting.

Cost Savings (negotiated savings and cost avoidance)

The chart shows the cost savings from FY20 to FY22 year-to-date achieved by Procurement through the competitive solicitation process in the Capital Project and Goods/ Service solicitations and the cost avoidance achieved in the Materials Management through the inventory optimization. The cost saving for Capital Procurement was not tracked in FY20.



Certified Firm Participation This Month:



Procurement and Compliance - continued

Upcoming Business Opportunities

All current and planned solicitations are available at dcwater.com/procurement. Those upcoming in the next two months are shown below:

Capital Procurement

Planned Solicitation	Project Title	Solicitation Type	Estimated Total Contract Value	Delivery Type	Eligible Inclusion Program
Dec 2021	Small Diameter Water Main Repl. 12C	RFP	\$10M	Bid Build	DBE/WBE
Jan 2022	Microgrid Implementation Project at Blue Plain Advanced WWTP	RFP	\$400K	Design	DBE/WBE
Jan 2022	Water and Sewer Assessment Support	RFP	\$6M	Design	DBE/WBE
Jan 2022	MFU-8	RFP	\$10M	Bid Build	DBE/WBE
Jan 2022	Lead Free DC Program Management	RFP	\$10M	Program Mgmt	DBE/WBE
Jan 2022	Potomac River Tunnel Project (Tunnel)	RFP	\$1M	Design	DBE/WBE
Jan 2022	Lead Service Line Replacement Contract	IFB	\$10M	Bid Build	DBE/WBE
Jan 2022	Small Diameter Water Main Repl. 16A	RFP	\$10M	Bid Build	DBE/WBE
Feb 2022	Subsurface Utility Engineering BOA	IFB	\$2.5M	Design	DBE/WBE
Feb 2022	Small Diameter Water Main Repl. 15D	RFP	\$10M	Bid Build	DBE/WBE
Feb 2022	Lead Free DC Construction Contract	RFP	TBD	Bid Build	DBE/WBE
Feb 2022	COF/IT Electrical System Upgrade	RFP	\$10M	Bid Build	DBE/WBE
Feb 2022	Water IR&R Contract	IFB	\$ 15 - \$ 20 M	Bid Build	DBE/WBE
Feb 2022	Small Diameter Water Main Repl. 16B	RFP	\$10M	Bid Build	DBE/WBE

Goods and Services Procurement:

Planned Solicitation	Project Title	Solicitation Type	Estimated Total Contract Value	Eligible Inclusion Program
Dec 2021	Reservoir Cleaning	RFP	< \$1M	DBE/WBE
Jan 2022	Medical Benefit Plans for Employees	RFP	> \$10M	DBE/WBE
Jan 2022	Security Systems integration and Management Services	RFP	\$1-\$5M	LSBE
Jan 2022	Fire Protection Systems	RFP	\$1-\$5M	LSBE
Feb 2022	IT Maintenance Renewal	RFP	< \$1M	DBE/WBE

Accomplishments

During the recent 2021 Government Fleet Conference/Expo in Orlando Florida, DC Water Department of Fleet Management was awarded top 50 "Leading Fleets" in the United States.

Tim Fitzgerald, Chauncey Anderson, and **Lauvern F. Williams** attended this year's conference.

November was Infrastructure Security Month and the Office of Emergency Management sent a Team Blue email on November 16 to all employees to highlight critical infrastructure protection within the Authority and what employees can do to help protect assets.

The Office of Emergency Management (OEM) had a calendar full of engagements, including the 2021-2022 DC Water Emergency Management Annual Training and Exercise Workshop on November 2, with 118 participants from DC Water and regional partner agencies.



Priorities

Winter weather preparations are in full swing. The Office of Emergency Management coordinated and facilitated two 2021-2022 DC Water Winter Weather briefings for a total of 85 attendees on November 16 and 18 to prepare all DC Water employees and contractors with winter weather planning and response training. Fleet Management is improving automatic notifications sent from WAVE to assist managers across the Authority in keeping up with preventative maintenance for all vehicles. The Facilities Department continues to prepare for winter weather by ensuring that we have the supplies and resources to keep all access points, walkways, parking areas, etc. as safe as possible, and will deploy the snow team to pretreat surfaces as necessary. The Department of Occupational Safety and Health will be distributing safety bulletins to remind DC Water teams how to prevent accidents and injuries during these cold winter months, whether you are working from home or at a DC Water site.



Shared Services Metrics

Metric	Target	Aug-21	Sept-21	Oct-21	Nov-21
Security: Camera operational uptime	90%	96%	96%	96%	97%
Security: Smart card readers operational uptime	90%	99%	99%	99%	100%
Security: Percent of security investigations completed within 21 days	95%	100%	100%	100%	95%
Facilities: Preventive Maintenance Completion Rate	90%	44%	34%	70%	68%
Facilities: Service Request Completion Rate	90%	39%	53%	44%	44%
Fleet: Preventive Maintenance (PM) on Schedule	96%	61%	69%	75%	43%
Fleet: Priority Vehicles/Equipment (In-Service)	96%	86%	83%	87%	86%
Safety: DC Water Employee Recordable Incident Rate (RIR) (CY)	< 5.3	4.7	4.3	1.2	1.2
Safety: DC Water Employee Lost Time Incident (LTI) (CY)	< 2.1	2.6	2.4	1.2	1.2
Safety: Contractor/ROCIP Recordable Incident Rate (RIR) (CY)	< 2.8	1.2	1.1	0	0
Safety: Contractor/ROCIP Lost Time Incident (LTI) (CY)	< 1.1	0	0	0	0



The Facilities' Service Request Completion Rate remains consistent with the October number. The demand has remained high on larger projects, taxing crew resources. Further inquiry continues into requests that are not getting closed out properly to identify corrective actions, including subcontractor related requests (pest control, elevator repair, vending, janitorial, and roll up doors) and improperly categorized requests (Example – SR issued to carpentry but actually for paint shop, resulting in duplicate work orders).

Fleet continues to struggle to meet preventative maintenance benchmarks due to the reduction in services/parts as a result of COVID-19, and saw a significant drop this month to 43% completed on schedule. This is on par with the service levels we experienced during previous waves of the pandemic, related to difficulty in scheduling of workers who have been hindered by positive and close contact cases. There are serious supply chain issues resulting in delays to parts availability, and the restricted access/parking from ongoing construction in the O Street area is hindering operations a bit as well. Fleet has focused on prep for winter operations, and has maintained availability of priority #1 vehicles at 86% despite the PM challenges, and will continue to work with operational departments to improve these metrics.



Customer Assistance Programs (CAP) –

FY22 Assistance Programs are activated for the new fiscal year. Customers who received CAP, CAP 2 and CAP 3 assistance in FY21 have received the same assistance without recertification due to the DOEE and UDP waiver of certification for the assistance programs under their purview. We anticipate LIHWAP to begin approvals in December; however we will not see the distributions until January 2022.

Customer Assistance Programs (CAP)

Program	FY2021 Enrolled	FY2021 Dollars	Nov # Enrolled	Oct Dollars	# FY22 Enrolled	FY2022 Dollars	FY2022 Budget
CAP I	4,453	\$2,378,326	178	\$344,637	5,546	\$662,280	\$2,737,865
CAP II	537	\$245,637	15	\$24,553	556	\$51,074	\$296,536
CAP III	191	\$36,059	1	\$2,811	185	\$8,245	\$100,000
Non Residential CRIAC Relief	189	\$955,707	22	\$50,268	68	\$88,983	\$350,000
Emergency Relief Program	1,820	\$1,071,464	0	\$0	28	\$27,493	\$-
DC Water Cares Residential	2,842	\$1,892,843	3	\$3,358	13	\$8,216	\$3,000,000
DC Water Cares Multifamily (number of units)	5,978	\$2,507,484	1255	\$594,456	1,268	\$598,804	\$6,223,837
STAY DC	304	\$352,419	0	\$0	290	\$293,618	N/A
Low Income Household Water Assistance Program	N/A	N/A	-	\$0	-	\$-	N/A

Key Performance Indicators

Metric	Target/ Service Level	Oct 21	Nov 21
% of Bills issued on time (w/in 5 days)	95%	98.6%	98.3%
Estimated bills as a percent of meters read	4%	4%	4.1%
Number of High Bill Complaints	trend only	186	112
% of OPC inquiries resolved within 14 days	90%	100	100%
% of calls answered in 40 seconds (call center)	85%	95%	89%
Monthly Call Volume Served (Call Center)	trend only	5,955	6,576
Average Talk Time (minutes)	5:30	5:55	6:32
Average Wait Time (minutes)	1:30	0:13	0:19
Abandoned Calls (%)	6%	2%	1%

The teams are working to remain on target to meet metrics for the year. There was a slight increase in call volume as customers call concerning disconnection and inquire about payment arrangements and assistance options. We anticipate the call volume increasing back to normal levels mid-year 2022. Overall, the team met most of the targets, only missing average talk time due to increased discussions concerning disconnections and assistance plans. Additionally, we have new employees that are taking longer in their overall talk time. We anticipate that as they get more comfortable in their role, the talk times will average out with the rest of the team.

In November three (3) new projects were launched during the month including:

VertexOne Enhancements

Various minor enhancements to the Customer Billing System are planned to improve customer interactions and support changes in business processes.

Engineering Brown Folder

Enhancements to the existing construction change order process (brown folder) are needed to optimize process flows and approvals.

IVR Upgrade

Operating system and database upgrades are needed to the Interactive Voice Response (IVR) to ensure the system remains at a supported level.

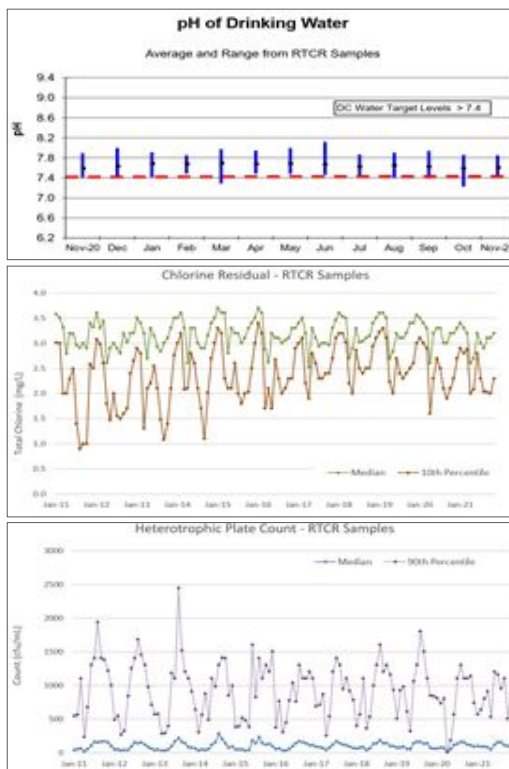
Consistent with our focus on creating a resilient computing infrastructure for the Authority, on November 19th and 20th a team led by **Joe Edwards** and **Nelson Sims** from the Information Technology Department conducted a successful test of our enhanced disaster recovery capabilities for our cloud solutions. During the course of the weekend the team successfully recovered our East Coast Azure tenant which included not only Maximo and ArcGIS, effectively our entire Asset Management solution, but a host of other computing capabilities at a Central Time Zone Azure data center. This exercise went well beyond a simple test, given the success of the lift and shift to the alternate Azure data center, the team decided to continue to operate on that platform through the week moving the environment back to the East Coast on Sunday.

IT Monthly Report

SR/WO Type	SL Target / SLA	Oct 21	Nov 21
Number of tickets submitted	Trend only	936	783
Number of open tickets	Trend only	75	72
Helpdesk SLA	96%	97%	99%
Number of active projects	Trend only	20	17
Number of completed projects	Trend only	3	0
On schedule performance	90%	90%	90%
On budget performance	90%	85%	85%

Feature of the Month – Water Quality & Technology

The Water Quality division of Water Operations is aligned with several of Blueprint 2.0 Organizational Imperatives with a primary focus on safety, wellbeing and reliability. As a part of the safety and clean water initiative, DC Water tests for elevated levels of lead, coliform, and other parameters that indicate the performance of corrosion control treatment, including pH and orthophosphate. DC Water analyzes pH on a daily basis at the Total Coliform Rule (TCR) monitoring sites (these data are not regulated). The pH chart shows the maximum, average, and minimum pH results at these sites over the past 13 months. DC Water also analyzes heterotrophic bacteria counts and chlorine levels from all Revised Total Coliform Rule (RTCR) locations. The Heterotrophic Plate Count (HPC) indicate the amount of biological activity in the distribution system. Low chlorine can indicate biological activity, reactions with iron, or excessive water age. Figure 2 shows the distribution system chlorine residual from the last 10 years. Figure 3 shows the HPC values from the last 10 years. Water Quality and Water Operations continues to monitor these levels to keep our drinking water safe.



Key Performance Indicators

Metric	Target/Service Level	Aug-21	Sept-21	Oct-21	Nov-21
Wastewater Operations					
NPDES Permit Compliance	100%	100%	100%	100%	100%
Air Permit Compliance	100%	100%	100%	100%	100%
Biosolids Class A	100%	100%	100%	100%	100%
Tunnel Dewatering	100%	100%	100%	100%	100%
Combined Heat and Power	>20%	23%	24%	25.4	27%
Reactive Maintenance	<20%	28%	31%	35%	35%
Critical Asset Availability	>95%	97%	97%	97%	97%
Sewer Operations					
CSS Structures Inspection	100%	100%	100%	100%	100%
MS4 Area Catch basins Cleaning/Inspections	100%	62%	64%	65%	78%
CSS Area Catch basins to Anacostia – Cleaning/Inspections	100%	100%	100%	100%	100%
Non-Anacostia CSS Area Catch Basins – Cleaning/Inspections	85%	52%	71%	90%	95%
Sewer Cleaning and Inspection (Miles)	>12	2.33	2.24	1.36	2.85
Sewer Backup (Investigation to Resolution)	>95%	100%	100%	100%	100%
Sanitary Sewer Overflow	1.4 per 100 Miles	0	.62	.15	1.08
Combined Sewer Overflow	0	0	4	1	7

dc Operations and Engineering

Water Services, Sewer and Pumping Operations, Wastewater Treatment, Engineering, DC Clean Rivers

Key Performance Indicators continued

Metric	Target/Service Level	Aug-21	Sept-21	Oct-21	Nov-21
Pumping Operations					
Firm Pumping Capacity Maintained	100%	100%	100%	100%	100%
Reactive Maintenance	<20%	33%	35%	34%	34%
Critical Asset Availability	95%	98%	98%	98%	98%
Water Operations					
Safe Drinking Water Compliance	100%	100%	100%	100%	100%
Replace Non-Standard Hydrants	>21/Month	11	13	7	14
Hydrant Flow Tests (Non-Winter Months)	>180	15	3	34	8
Fire Hydrants Operational	99%	99.73%	99.59%	99.46	99.69
Emergency Water Service Orders Completed	>90%	100%	100%	100%	100%
Water Quality Complaint Resolution (within 48 hours)	>90%	26%	49%	43%	48%
Water Main Breaks	<28/Month	27	14	22	66
Water Main Break Rate /100 Miles (National Average is 25)	25	38	35.52	19.41	36.06
% of Hydrant Leaks in Inventory that are not leaking	>90%	99%	99%	99%	99%
Permit Operations					
Overall On-time completion of Permit Reviews	90%	91%	92%	94%	88%



Explanation of Missed Targets

MS4 Area Catch Basin Cleaning/Inspection (100%)

The Department has an annual goal of 100% and expects to achieve this goal by year end.

CSS Area Catch basins to Anacostia (100%) and Non-Anacostia CSS Area Catch Basins (85%)

Our next goal is to complete cleaning the entire MS4 for compliance period July 1, 2020 – June 30, 2021. The CSS Anacostia catch basins must be inspected twice a year, so the department set a goal for 1st inspections between January 1, 2021 – June 30, 2021. There is no specification in the permit when the two inspections should be completed, but the compliance period for cleaning the Non-Anacostia CSS is January 1, 2021 – December 31, 2021.

Sewer Cleaning & Inspection (>12 Miles)

This KPI is a measure of progress toward meeting an internally set goal of cleaning and inspecting 12 miles of our small diameter sewers per month. This is based on completing the cleaning and inspection of 1,400 miles of small diameter (< 24 in) sewer in an 10-year cycle. Due to our existing internal crews prioritizing response to service requests and permit required inspections, progress toward our overall goal is impacted. The Department is assessing the internal and external resources required to achieve the established target in the coming year.

Replace Non-Standard Hydrants (>20/Month)

The Department was unable to meet the monthly target due to limited staff, scheduled leave and the need for additional resources. The Department expects to increase the number of non-standard hydrant replacements as emergency repairs and resources allow.

Hydrant Flow Tests (Non-Winter Months) (>180)

The Department did not meet the monthly target due to limited staff availability and the need for additional resources. The Department anticipates an increase in performance as adequate levels of staffing are maintained.

Water Quality Complaint Resolution (within 48 Hours)

Although we addressed all customer complaints by phone and email, by flushing hydrants within the same day, we were unable to fully resolve 51% of the customer complaints since there were hydrants that needed to be rechecked and were still pending due to illness, scheduled leave and resource needs (staff). The Department is actively recruiting for several water quality positions and is looking forward to demonstrating improvement within the next year.

Wastewater Operations Reactive Maintenance (<20%)

DC Water has adopted a manufacturing industry best practice benchmark of less than 20 percent reactive maintenance hours as percent of total maintenance hours. To our knowledge, there is no similar benchmark used in the public water utility sector. Blue Plains manages around 45,000 assets within our asset management/maintenance management system, and this stringent industrial benchmark is tracked as a marker for continuous improvement. We observe a descending trend of percent of total reactive maintenance hours, measured as annual average during fiscal years 2019, 2020, and 2021 to date*, of 40%, 37% and 31% respectively, for assets at the Blue Plains Advanced Wastewater Treatment Plant. The reduction realized is attributed to enhanced proactive and predictive maintenance programs, training of staff on precision maintenance and reliability centered maintenance, optimization of existing preventive maintenance plans, and improvements in processes and equipment through the Capital Improvement Program. The goal is to remain on the reduction pathway towards a benchmark that is applicable for Blue Plains.

Pumping Operations Reactive Maintenance (<20%)

The reactive maintenance metric has slightly improved since last month but did not meet the target due to other prioritized work activities and / or emergencies. This is a new metric and to meet the goal we shall continue to enhance our proactive maintenance practices, complete scheduled precision maintenance training and remain focused on our reliability centered maintenance activities. We expect to see incremental improvements, year after year.

Permit Operations Overall On-Time Reporting (>90%)

Permit Operations was slightly under target due to a 22% increase in requests for information. While the department completed nearly 50 more reviews than normal, maintaining a 90% overall target for a sustained time with increased volume would require two additional staff.

dc DC Water Capital Improvement Program

Water, Sewer, Blue Plains, Lead Free DC and DC Clean Rivers

Fleet Facilities

As of November 15, 2021, the substantial completion date for the new Fleet Facility is April 22, 2022. This date is based on the resolution of all delays created earlier in the project due to permit impacts and inefficiency related to the debris filled earth material. As of 12/1/21 the building steel has been set and the floor and utilities are being installed.

Potential impact: Due to the 209-day delay material and labor cost have increase. DC Water will start negotiating material and labor cost in the next few weeks.

Sewer Services Building

As of November 15, 2021, the building contractor obtained the substantial completion and is working on the punch list items. Facility training has started, and DC Water is working with the contractor for a date to start relocating vehicles. In addition, DC Water has started negotiating scope changes related to the building construction.

Potential impact: Cracks have started to form in the parking area. A third-party review of the cracks point to a pour design and or installation. The situation is under review with legal.



- Design of traffic control plans and permitting documents for the Capital Improvement Project and Emergency Rehabilitation (CIPERR) Phase 2 program is on-going. Anticipate design completion by end of December.
- Construction has started with two contractors selected to replace lead and galvanized pipe and perform test pitting activities to bolster DC Water's inventory database. Service line replacements began in November.
- Resource identification for increased activity and work continues, including construction management and inspections and scheduling for replacement and test pitting activities.
- Considered a critical link in the success of the program, communications and outreach is building up with additional resources being added. This includes staff for more door-to-door campaigns, phone calls, and appointment scheduling.
- Data management staff continue to develop and refine dashboarding tools to allow for near real time updates for the program.
- DC Water has completed the first lead replacements as part of the FY22 block-by-block program.

Fiscal Year	LPRAP (Assistance Program)	Voluntary Full	CIP Full	CIP Partials	Emergency Full	Emergency Partials	Total LSRs	FY21 Goal	Total Partials	Partials %	Goal %
FY2021	224	489	37	14	81	2	847	500	16	1.90%	2.1%



Northeast Boundary Tunnel

Northeast Boundary Tunnel is a 23' diameter 5-mile-long tunnel designed to provide CSO control and flooding relief in NE DC. Work continues at the satellite sites along Rhode Island Avenue and at the W Street and Mount Olivet Road sites that will connect the near surface structures to the NEBT tunnel system. Upcoming work will focus on shaft/adit connections to the main tunnel; shaft internals at R street, Rhode Island Avenue (RIA) and T Street; and concrete work for Near Surface Structures (NSS) permanent work at Mount Olivet Road (MOR), R street, T Street, and Florida Avenue(FLA); continue Ventilation Control Facility (VCF) and Retaining wall work at W Street. The Northeast Boundary Tunnel Project is planned to be placed in operation in 2023.



High Risk Audit Findings

Open High Risk Prior Audit Findings

	Audit FY	Issue Date	Audit Report	High Risk Open Finding	Original Target Date	New Target Date	# Extensions
1	2016	7/28/2016	Training, Licensing, and Certification	Identification and monitoring of training requirements by position <i>Status notes: Three training buckets (safety, compliance, and technical) have been configured in Cornerstone LMS. Technical training requirements are being identified by department. Trainings will be assigned by role when the Oracle LMS module is implemented.</i> <i>Reason for extension: Multiple changes in leadership within People & Talent, not prioritized under previous leadership, difficulty organizing technical trainings requiring cross-departmental support, delay in Oracle implementation go-live.</i>	9/30/2017	6/6/2022	5
2	2017	10/26/2017	Entity Level Assessment	Lack of a comprehensive risk management function to evaluate entity-wide risk Lack of Authority-wide policy and procedure management function	10/1/2018	3/31/2022	3
3				<i>Status notes: EPMO has developed an Enterprise Risk Management (ERM) Policy to be institutionalized across the enterprise. EPMO has also developed a policy regarding policy and procedure administration to address Authority-wide policy development, issuance, and maintenance. A DC Water Policy Administrator position will be created.</i> <i>Reason for extension: Continued change in ownership of action plans. Difficulty executing cross-departmental initiatives.</i>	9/30/2018	2/28/2022	3
4	2018	1/24/2019	Enterprise Work Order Management Assessment	DWO – Inadequate capture of labor and materials cost data in Maximo work orders <i>Status notes: Pilot for hydrant program is complete. Roll out of valve application in progress; application is undergoing user acceptance testing in parallel with training for the field crew staff.</i> <i>Reason for extension: Deprioritized due to COVID. Emergencies and vacations of field crew staff delayed user acceptance testing.</i>	9/30/2020	3/31/2022	3

Legend

	Past due
	Original target date has not yet come due



CEO Report Dashboard

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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




ORGANIZATIONAL PERFORMANCE DASHBOARD (Nov 2021)

Financial Highlights

Net Operating Cash (\$m)		Operating Revenue (\$m)		Operating Expenses (\$m)		Capital Disbursement (\$m)		Operating Cash Bal (\$m)	
Actual	99.64	Actual	186.30	Actual	86.90	Actual	65.70	Actual	264.80
Target	19.17	Target	181.50	Target	93.40	Target	120.50	Target	194.00

Core Invest Yield (%)		Short Term Invest Yield (%)		Delinquent Acct Receivables (%)		On-time Vendor Payments (%)	
Actual	0.56	Actual	0.06	Actual	4.55	Actual	94.50
Target	0.51	Target	0.05	Target	3.00	Target	97.00

Operations and Engineering Highlights

Lead Concentration (ppb) 	Total Coliform Rule (%) 	Biosolids Production (wet tons) Actual 422	Total Nitrogen (lbs/yr mil) 
---	--	--	--

Plant Effluent Flow (gal mil) 	Excess Flow (gal mil) 0	Water Main Leaks 66	Water Valve Leaks 7
--	----------------------------	------------------------	------------------------

Fire Hydrants Insps. And Maint.	Fire Hydrants out of Service	Fire Hydrants Replaced (YTD)
1366	30	14

Sewer Main Backups	Sewer Lateral Backups	Dry Weather CSO	Permits Processed within SLA (%)	Electricity Usage (Kwh)
6	83	1	88	16183

Customer Experience Highlights

Call Center Performance Actual 89% ✓ Target 85%	Command Center Performance Actual 86% ✓ Target 85%	Emergency Response Time Actual 91% ✓ Target 90% ✓ (% of calls Received)
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Low Income Assistance Program Highlights

SPLASH Contributions (\$tho) Actual 12.31 Target 13.33	Customer Assist. Program (\$tho) Current 344.64 Previous 128.88
--	---

People and Talents Highlights

Recruitment Activity	
Filled	1
Open	88

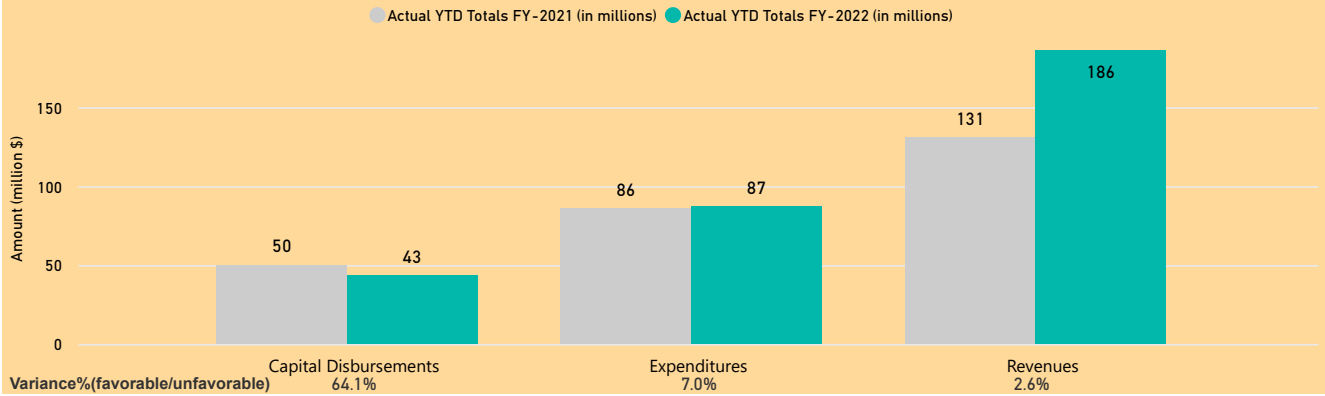
Administration Highlights

Employee Lost Time Incidence Rate	
	1.10%

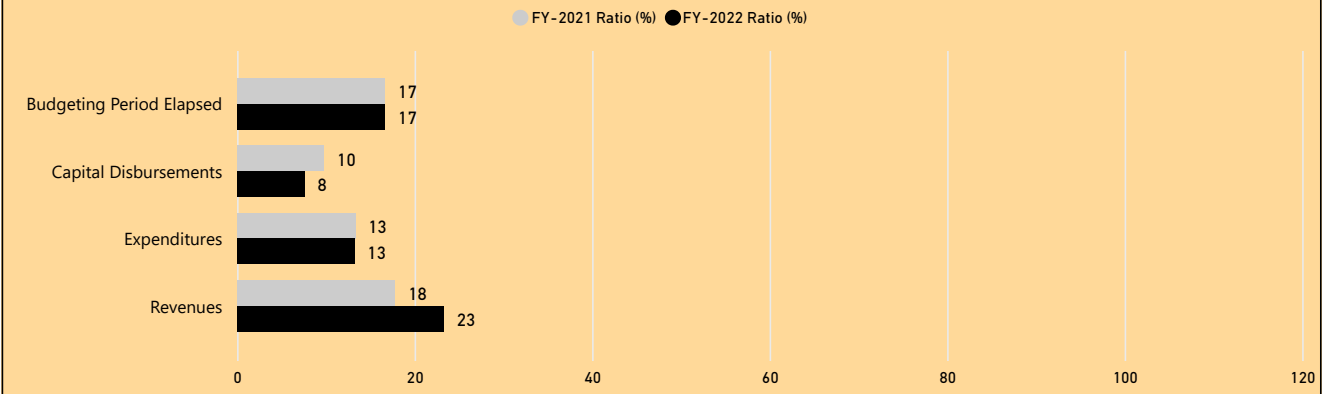
FINANCIAL HIGHLIGHTS

Financial Performance Summary

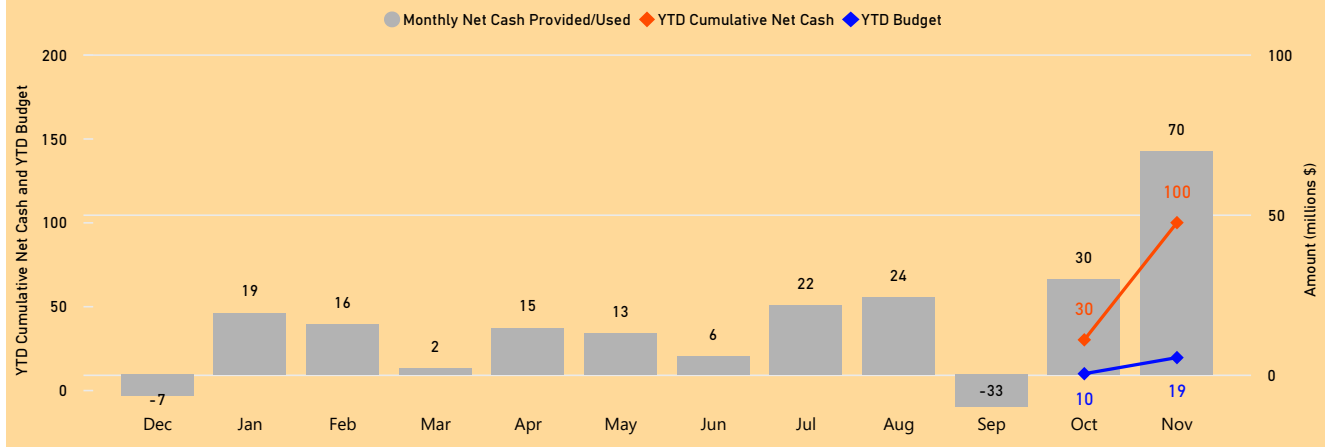
Revenue, Expenditure, and Capital Disbursement



Year to Date Analysis



Net Operating Cash

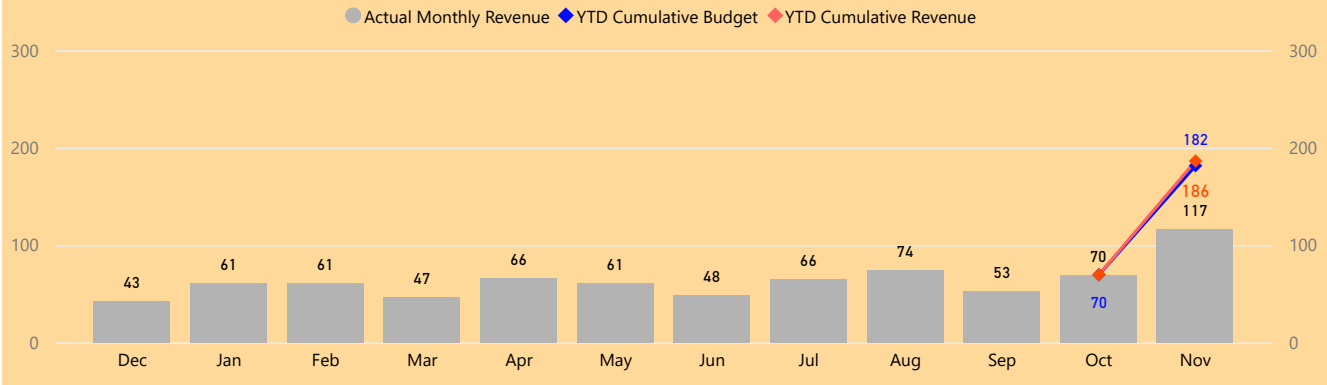


Net cash to date for November was above budget by \$80.5 Million

FINANCIAL HIGHLIGHTS

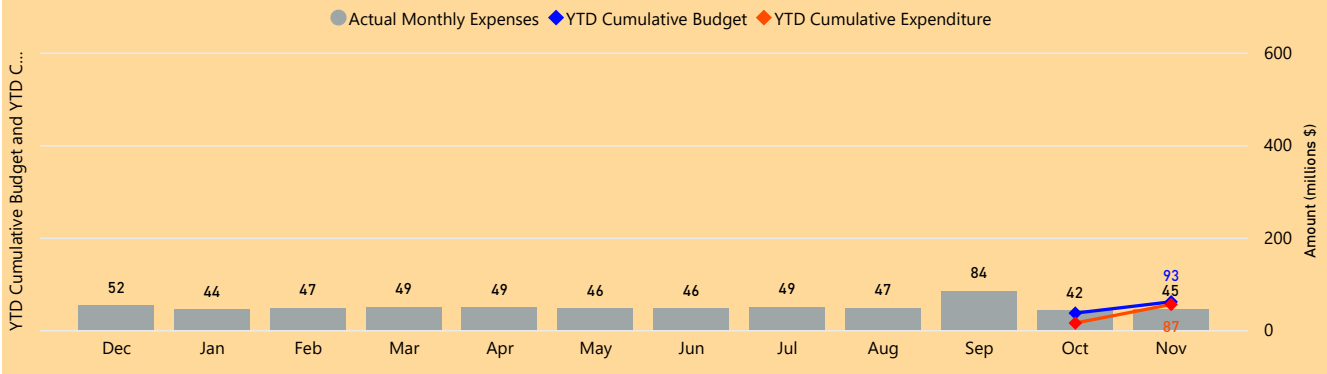
Revenues & Operating Expenses

Operating Revenues



Revenue to date for November was above budget by \$4.76 Million

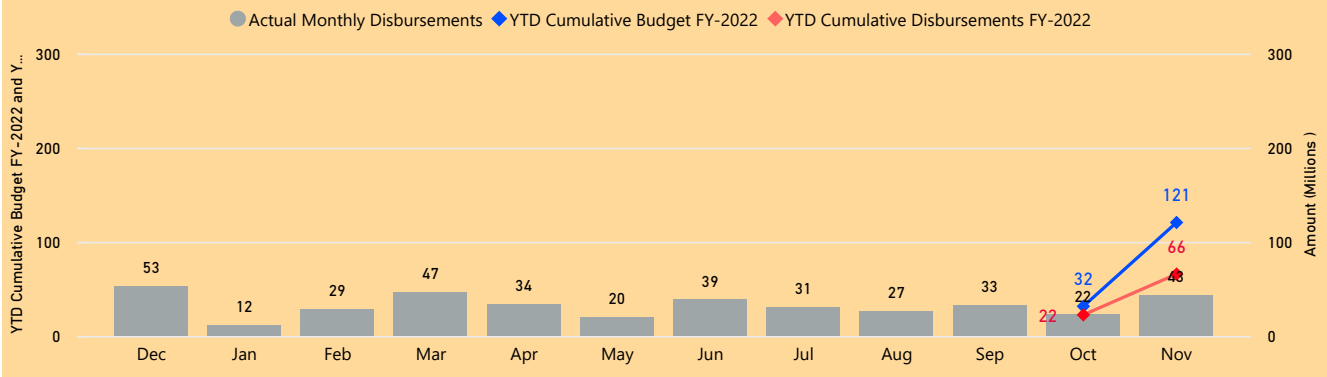
Operating Expenses



Expenditure to date for November was below budget by \$6.6 Million

Capital Spending

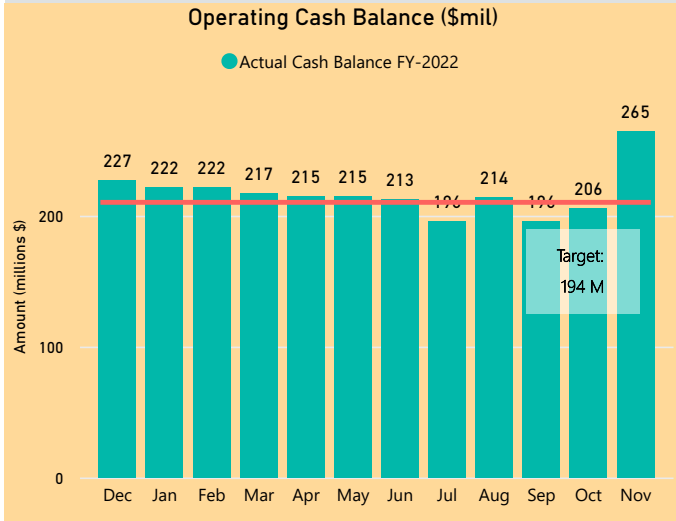
Capital Disbursement



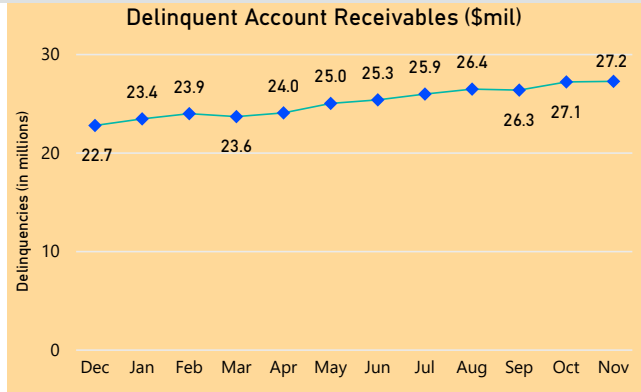
Disbursements to date for November was below budget by \$54.8 Million. YTD spending reflects comparison to the revised budget.

FINANCIAL HIGHLIGHTS

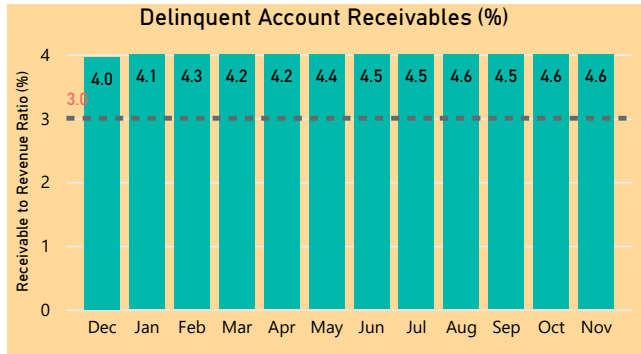
Operating Cash & Receivables



Cash Balance for November was above target by \$70.8 million

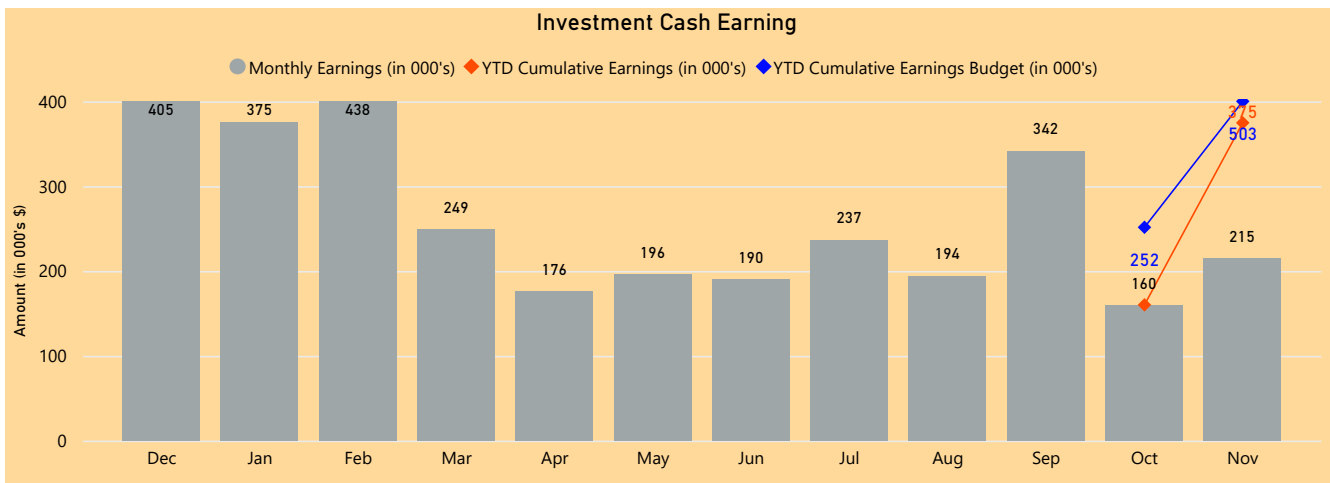


Starting March, the increase is primarily due to increased delinquencies and deferred payments resulting from the COVID-19 pandemic



November Receivables to Revenue Ratio is 4.55, Delinquency is \$27.20 milli...

Investment Earnings

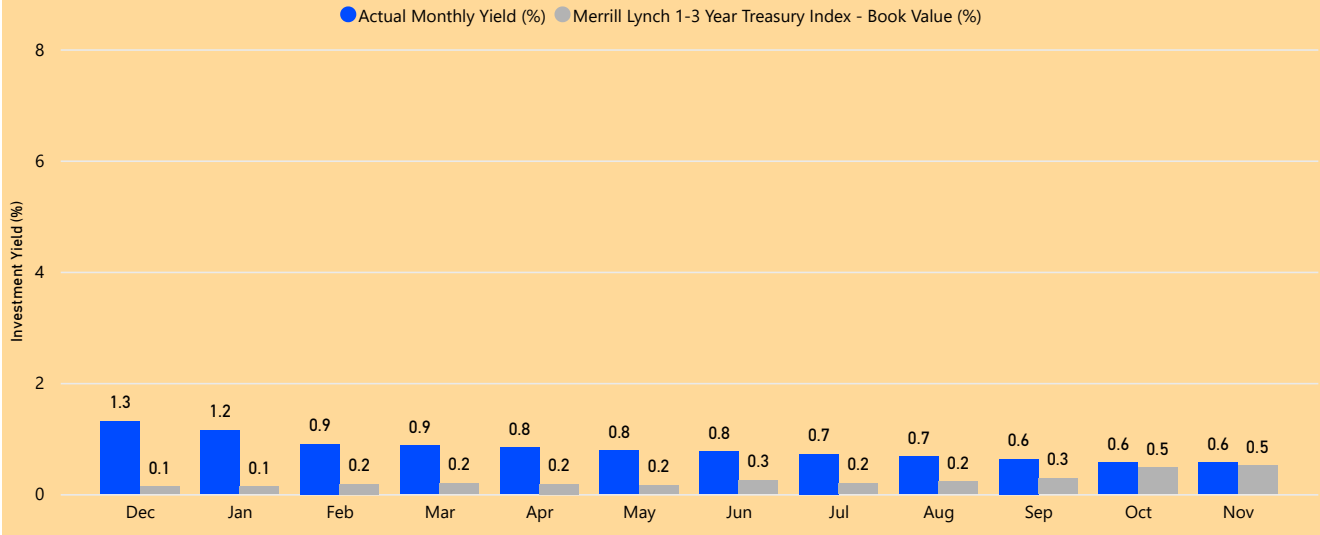


Earnings to date for November were below Projected Budget by \$128,425.

FINANCIAL HIGHLIGHTS

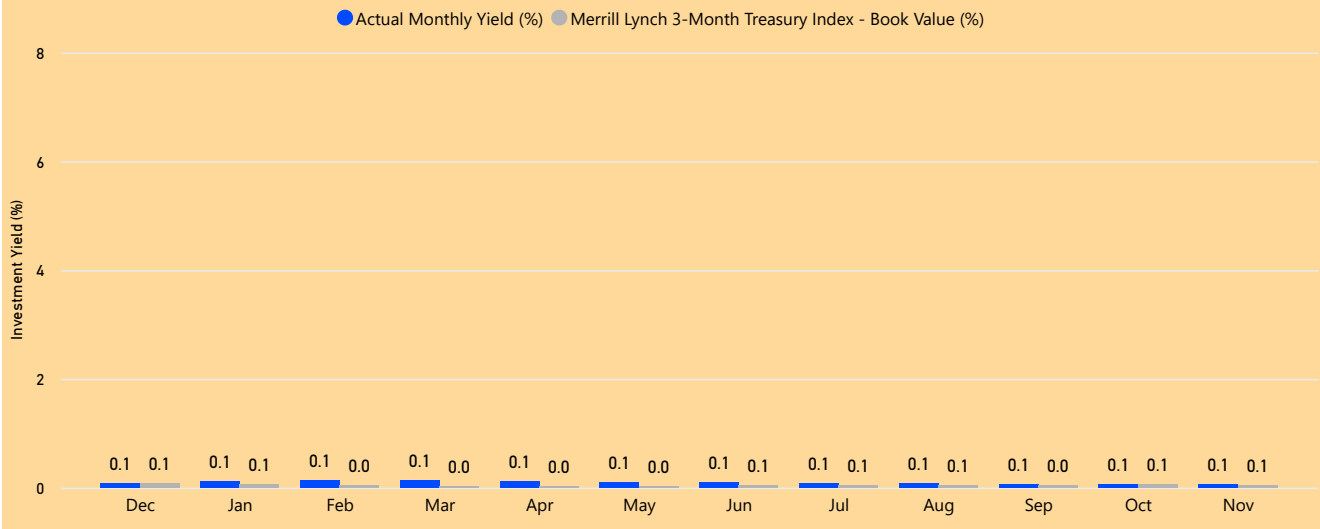
Investment Yields

Core Investment Yield



Yield for November was more than the treasury index by 0.05%

Short Term Investment Yield

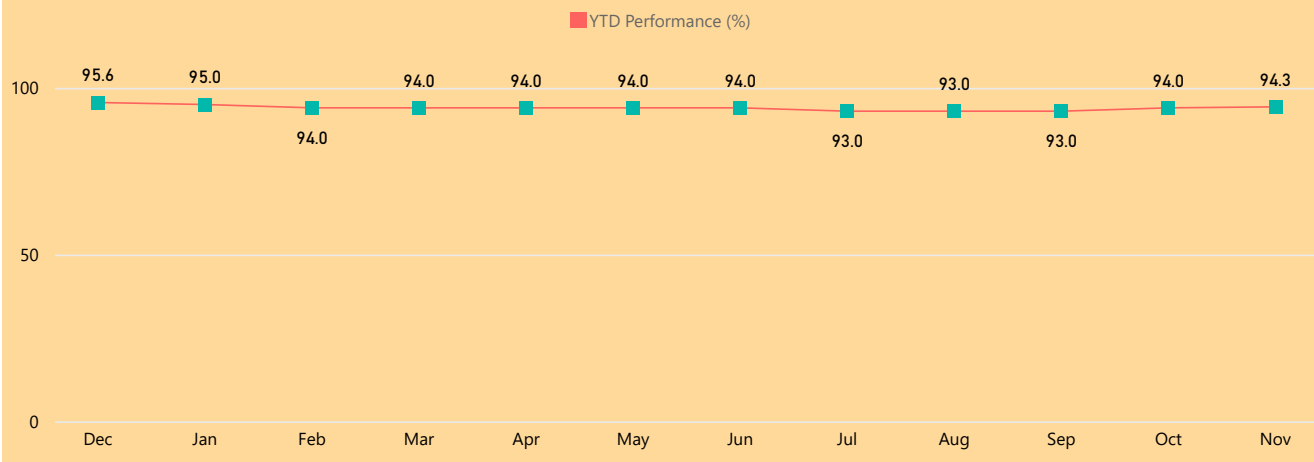


Short Term Yield for November was more than the Merrill Lynch yield by 0.01%

FINANCIAL HIGHLIGHTS

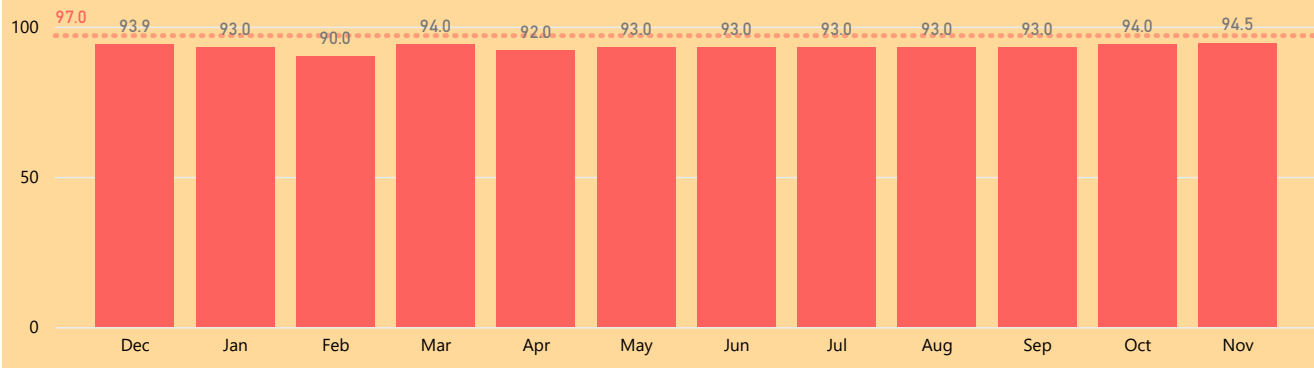
Vendor Payments

YTD Performance



Monthly Performance (%)

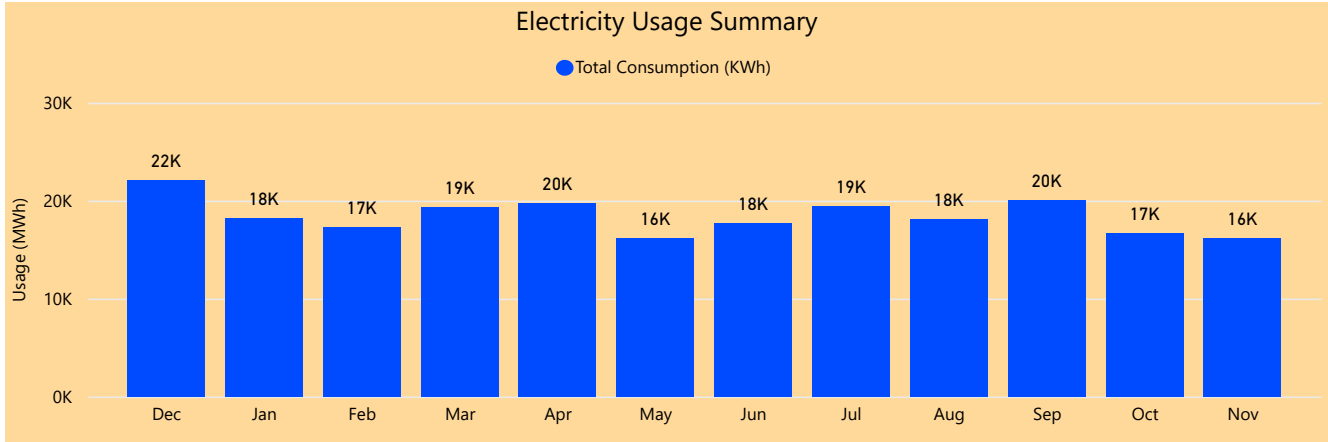
Target: 97%



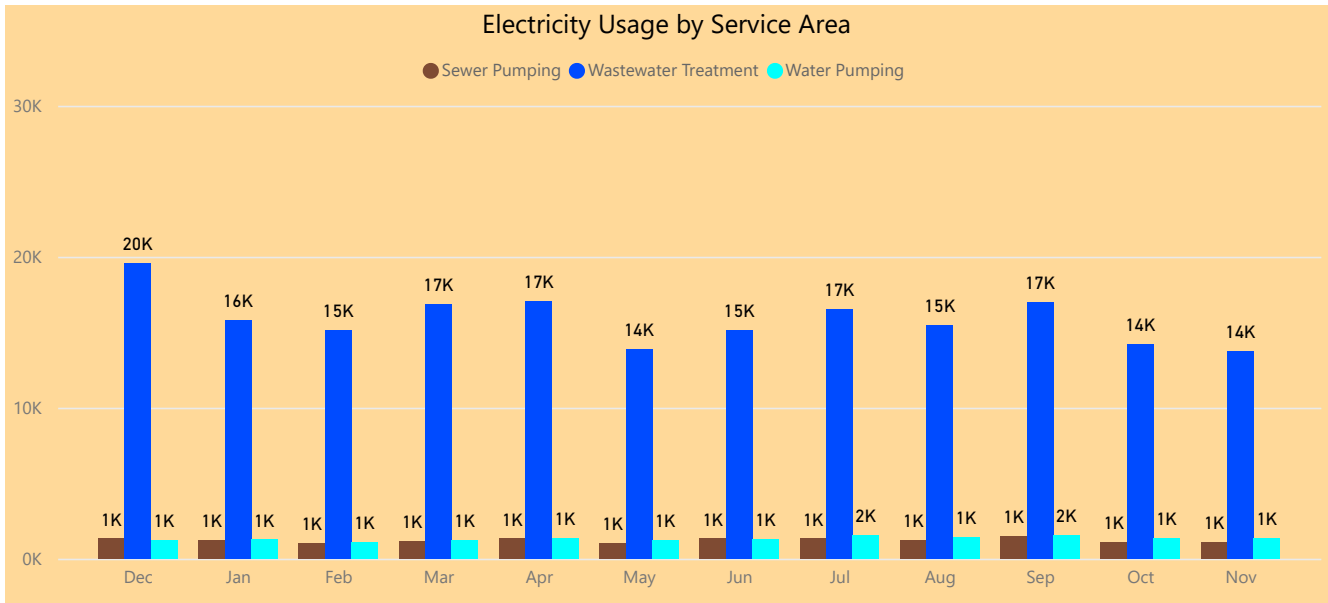
Performance for November was 2.5% below the monthly target of 97.0%

OPERATIONS AND ENGINEERING

Energy Consumption



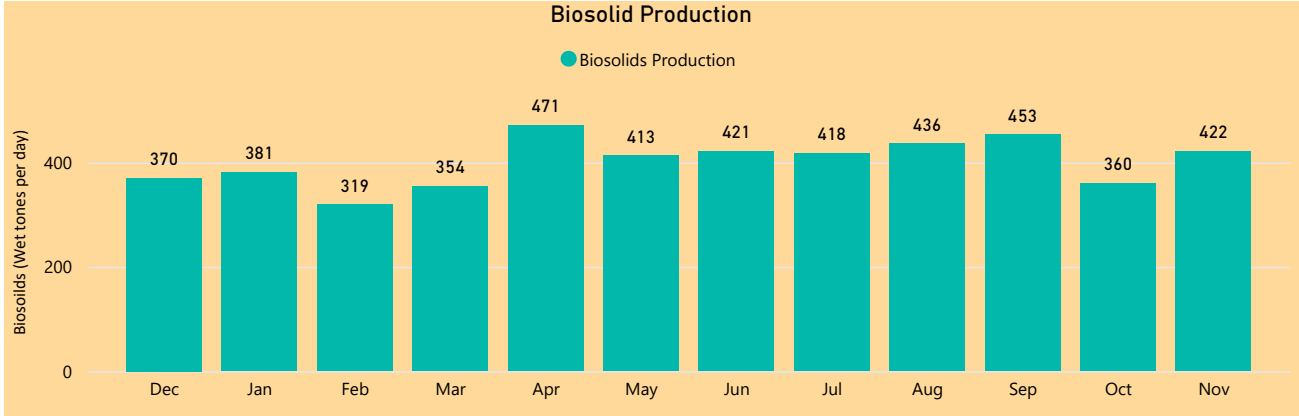
Electricity consumption in Nov 2021 was 16183 KWh.



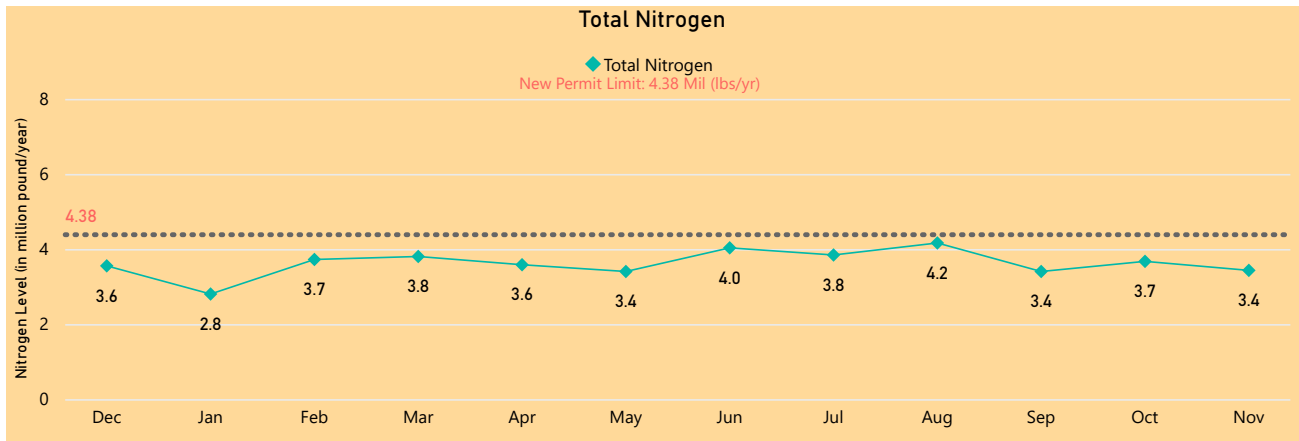
Wastewater treatment has the highest electricity consumption in Nov 2021 at 13771 KWh.

OPERATIONS AND ENGINEERING

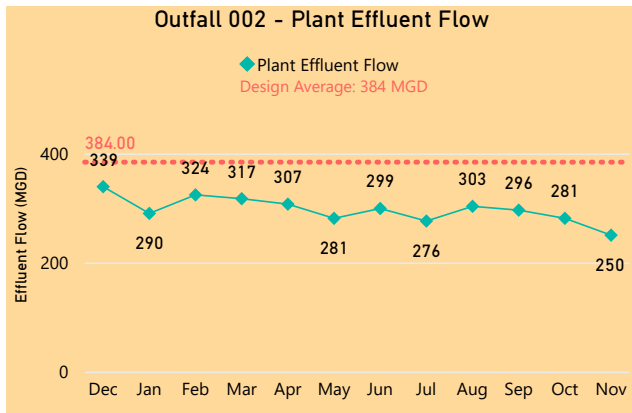
Wastewater Treatment



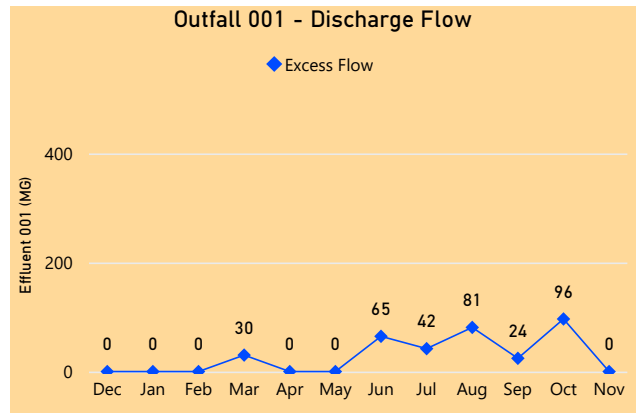
Biosolids daily production for Nov 2021 was 421.52 wet ton per day.



Nitrogen level for Nov 2021 was below permit by 0.95 million lbs/yr.



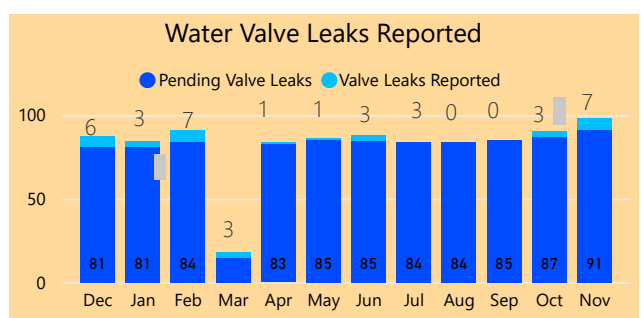
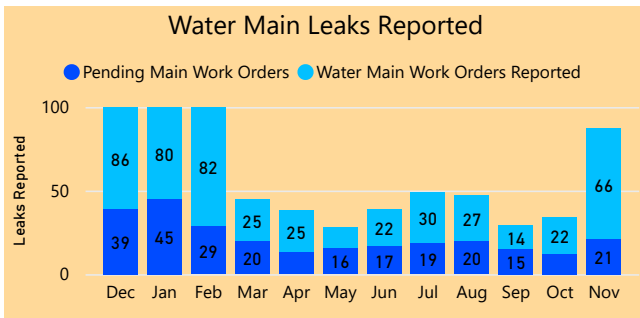
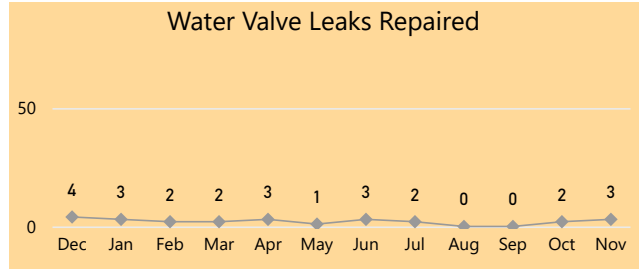
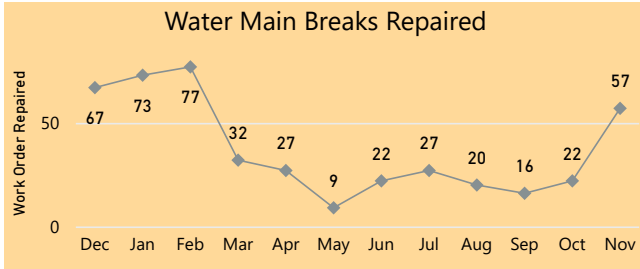
In Nov 2021 effluent flow was below permit by 133.9 MGD.



Excess flow events were recorded at 0 MG in Nov 2021.

OPERATIONS AND ENGINEERING

Water Distribution Operations

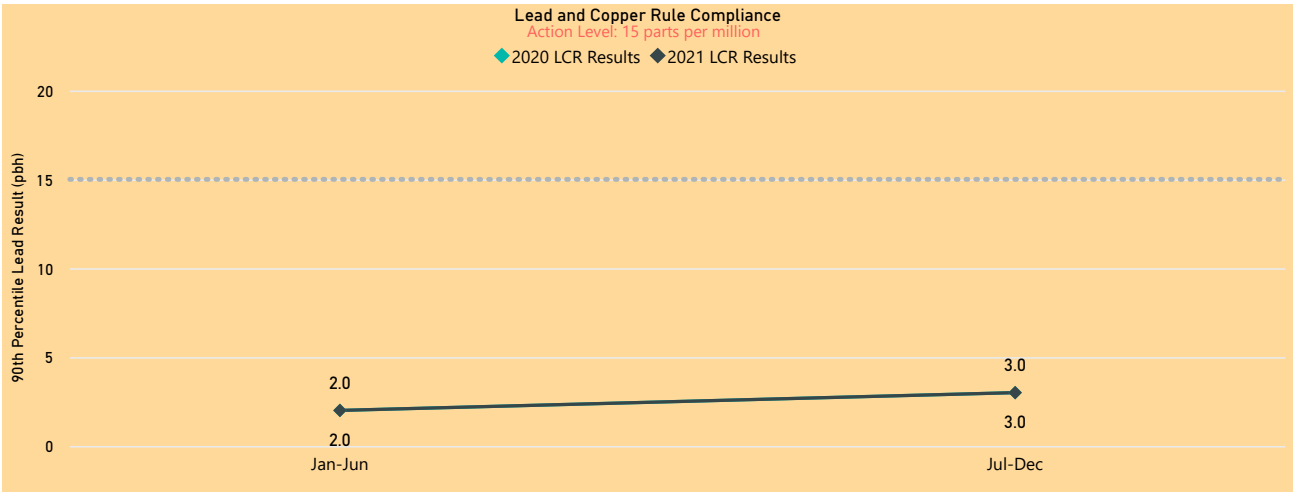


There were 66 Water Main Work Orders reported in November.

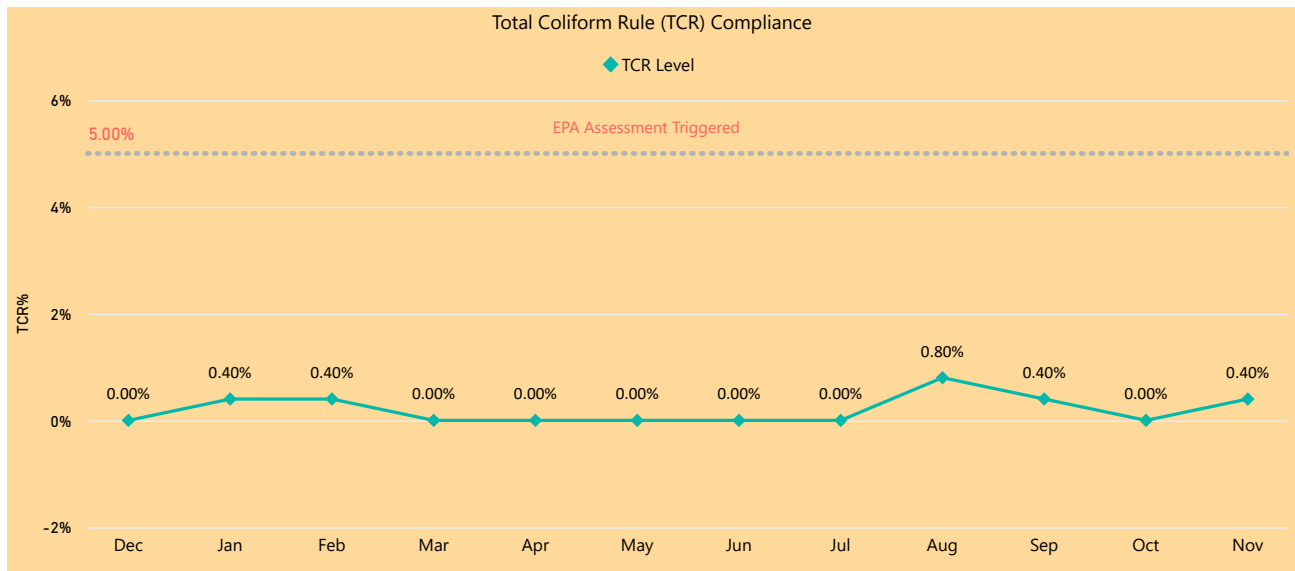
7 leaks were reported in November.

OPERATIONS AND ENGINEERING

Drinking Water Quality



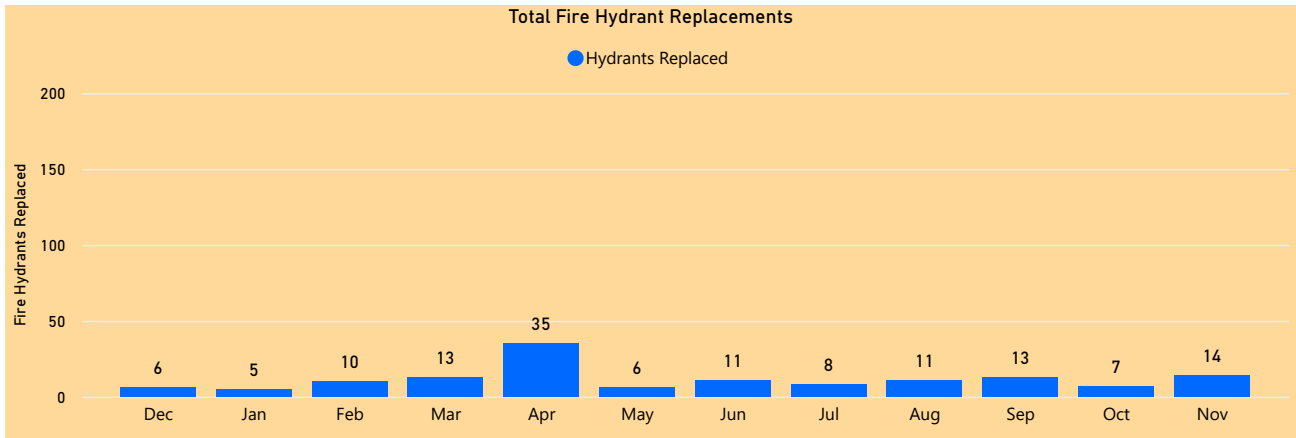
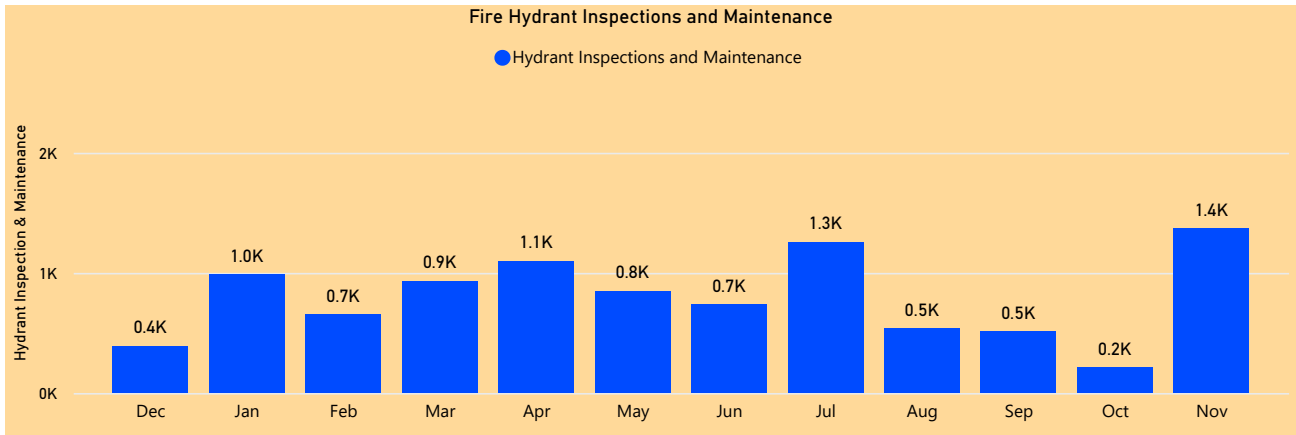
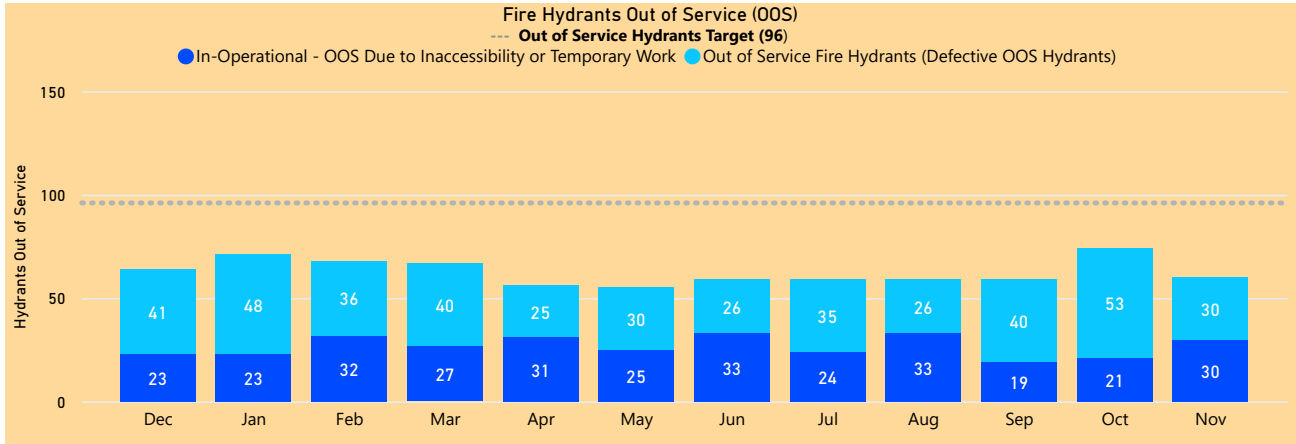
90th percentile of lead results for 2nd semester 2021 is 2.6 ppb



Coliform Positive was recorded at 0.004% for Nov 2021

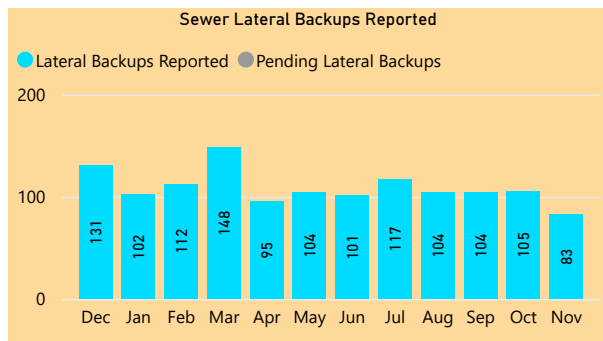
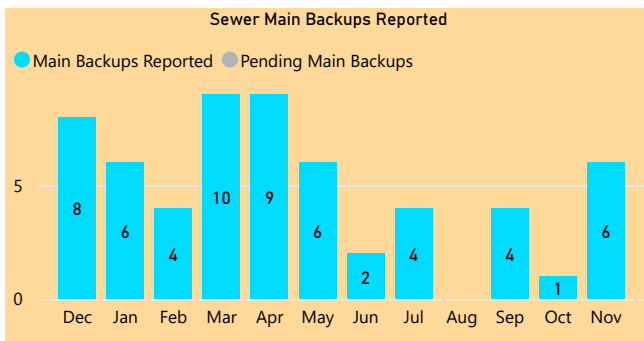
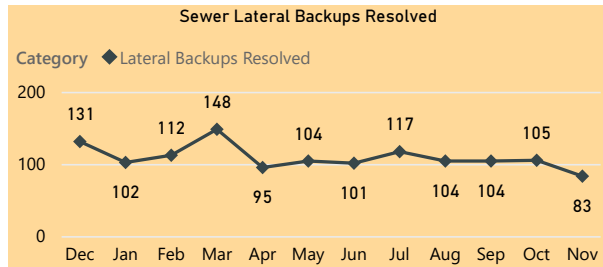
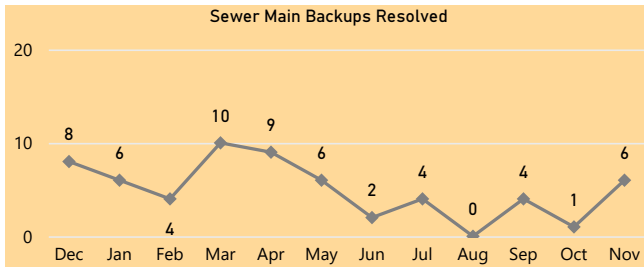
OPERATIONS AND ENGINEERING

Fire Hydrants



OPERATIONS AND ENGINEERING

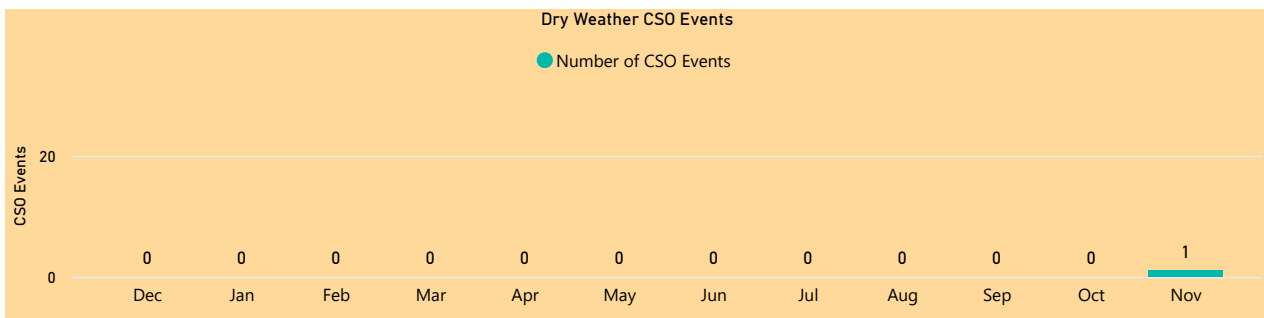
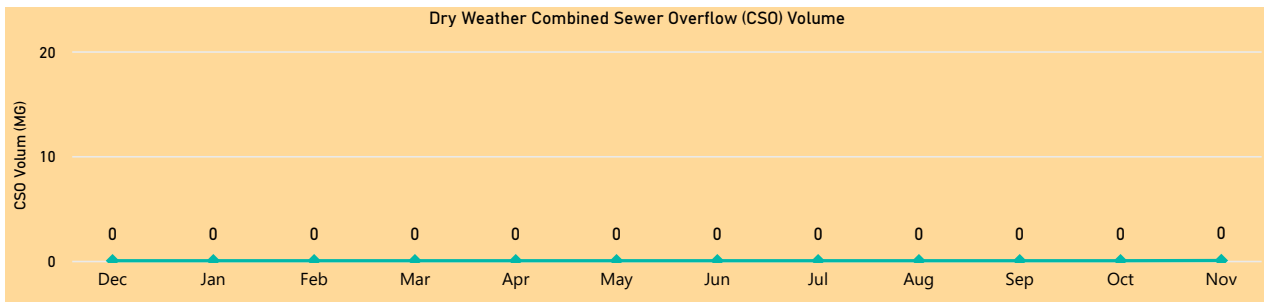
Sewer System Operations



0 pending main backup(s) reported

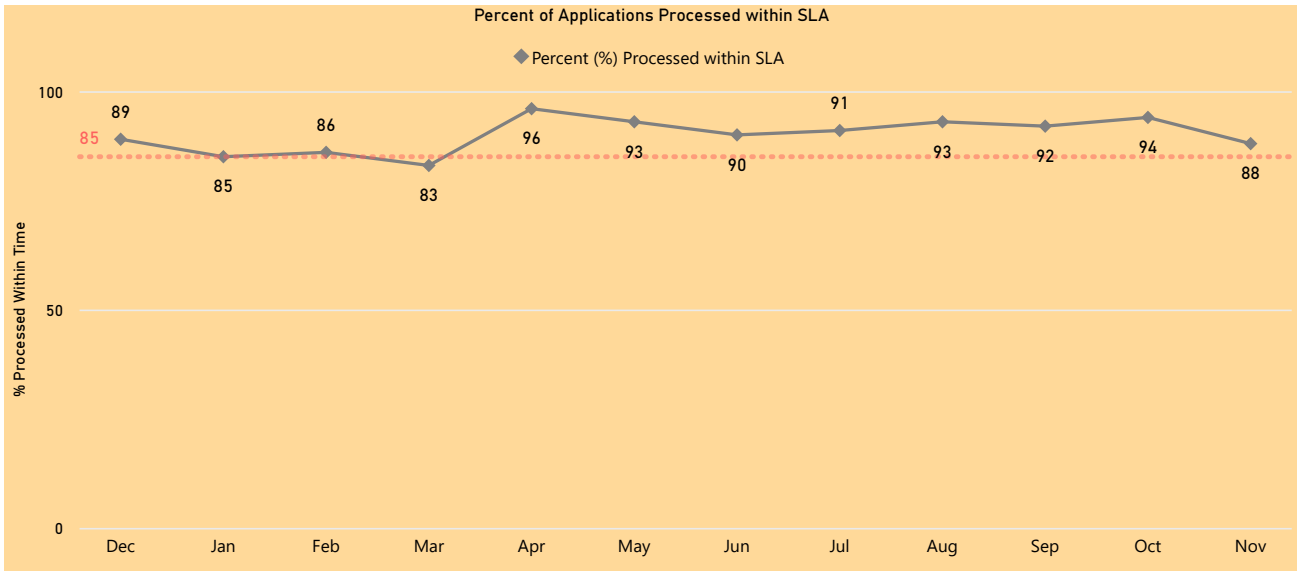
0 pending lateral backup(s) reported

Combined Sewer System

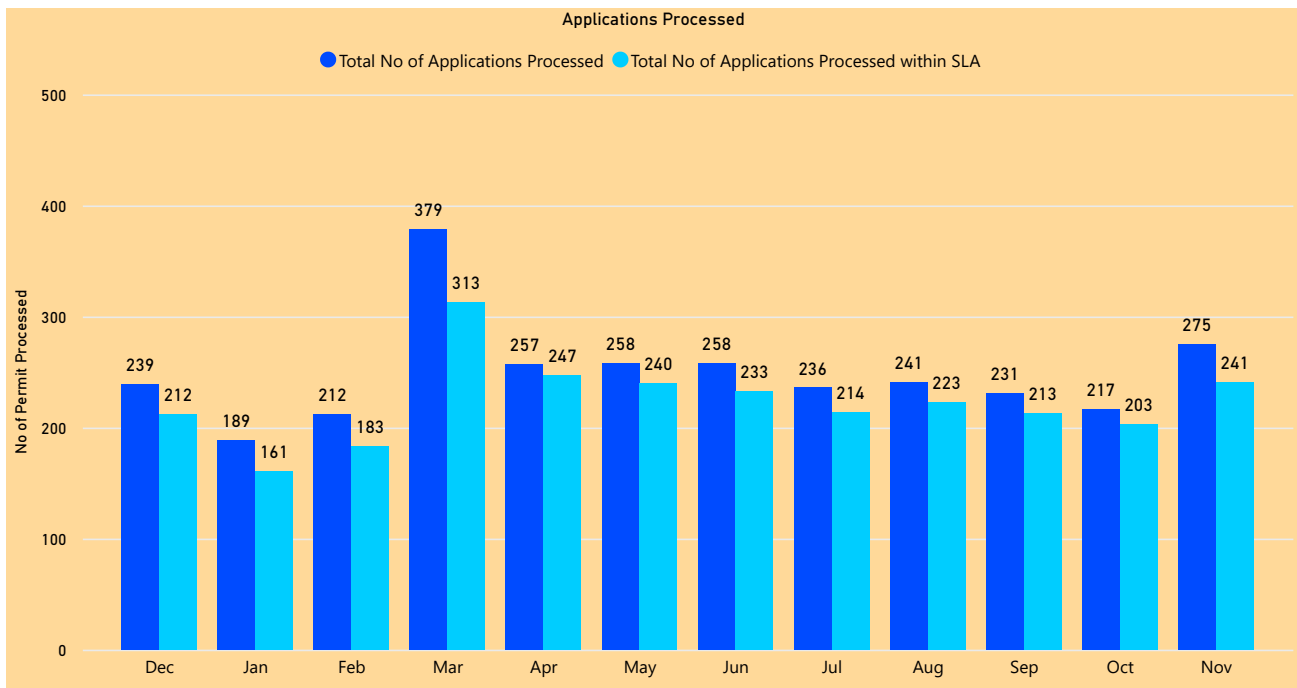


OPERATIONS AND ENGINEERING

Permit Processing

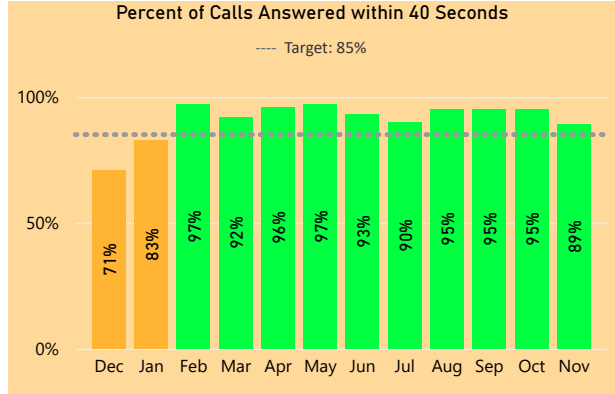
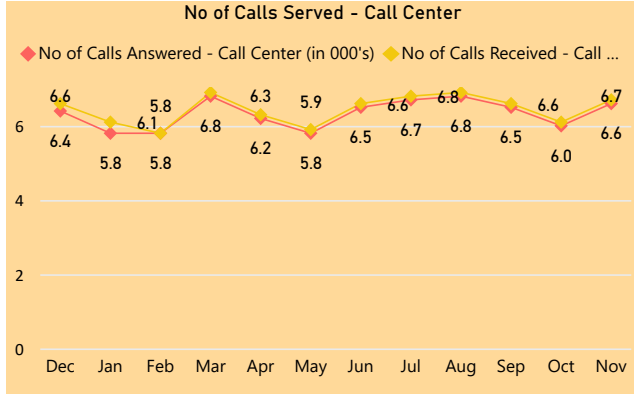


Permits processed in Nov 2021 were 3% above the SLA target 85%



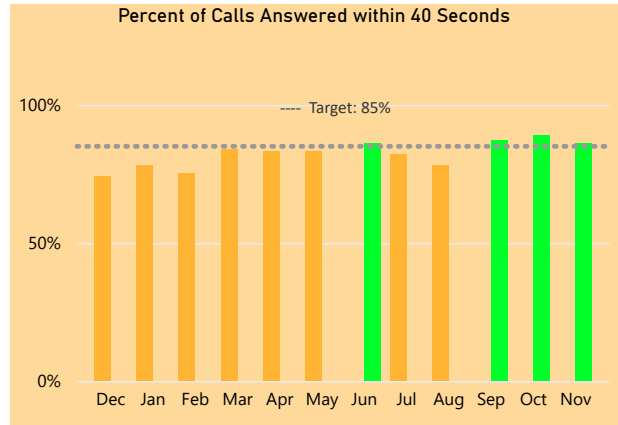
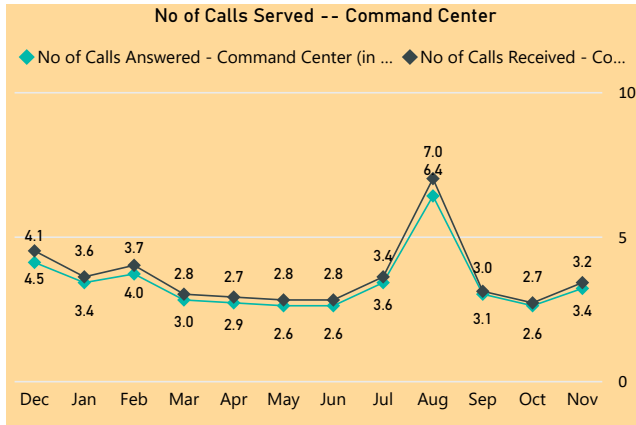
CUSTOMER EXPERIENCE

Customer Care - Call Center Performance



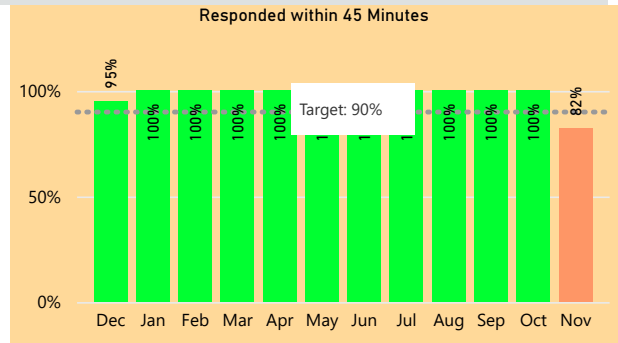
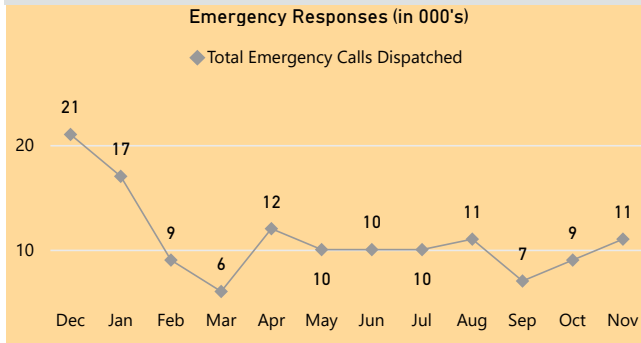
Call Center was above target by 4%.

Customer Care - Command Center Performance



Command Center was above target by 1%.

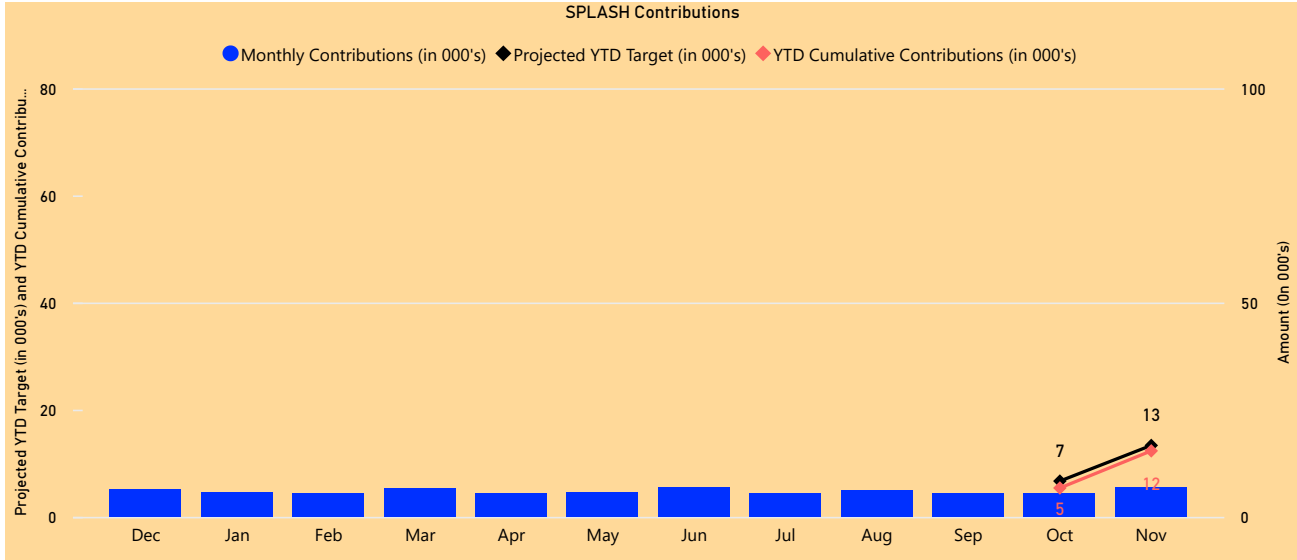
Customer Care - Emergency Response Time



Performance for Nov 2021 was under target by 8%.

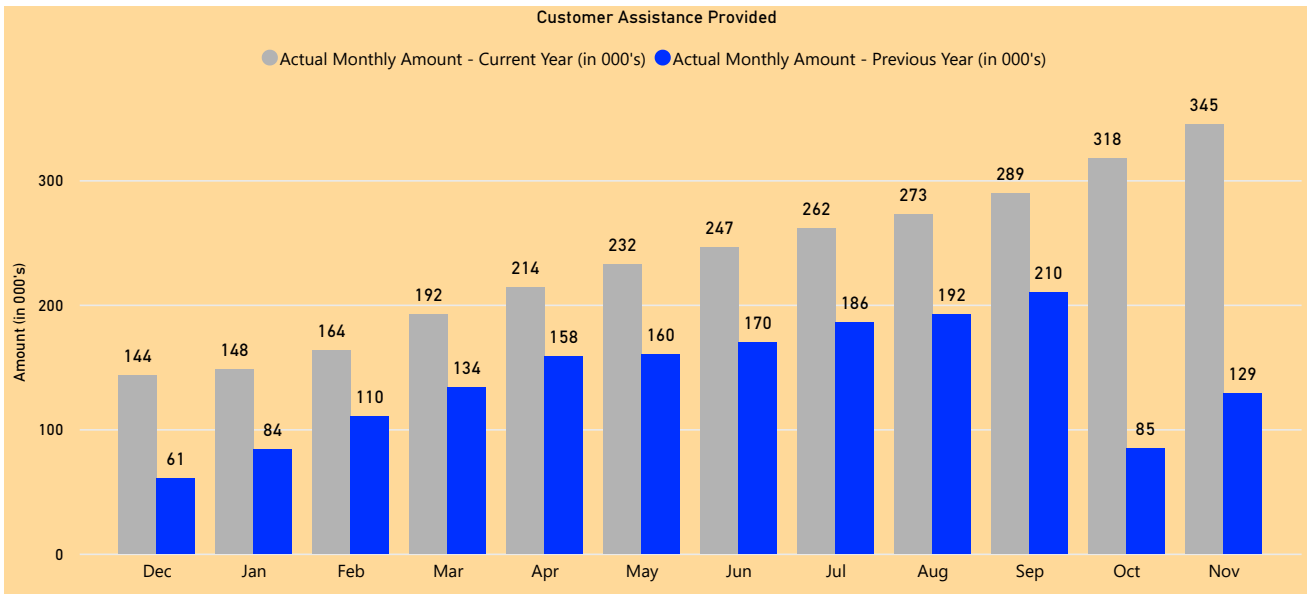
LOW INCOME ASSISTANCE PROGRAM

SPLASH Program



Total SPLASH contributions to date were below target by \$1.02k due to lower employee and customer contributions compared to last year.

Customer Assistance Program (CAP)

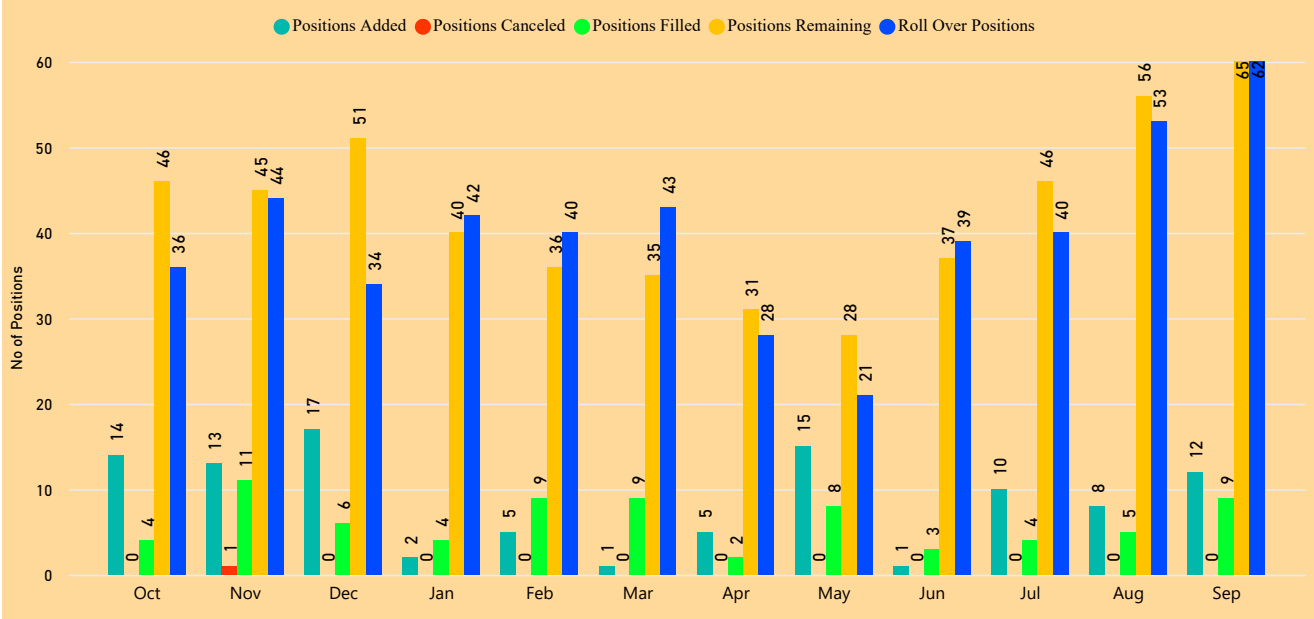


Total CAP account credits were \$215.767k higher than last year due to inclusion of STAY DC customers that were added to the CAP program.

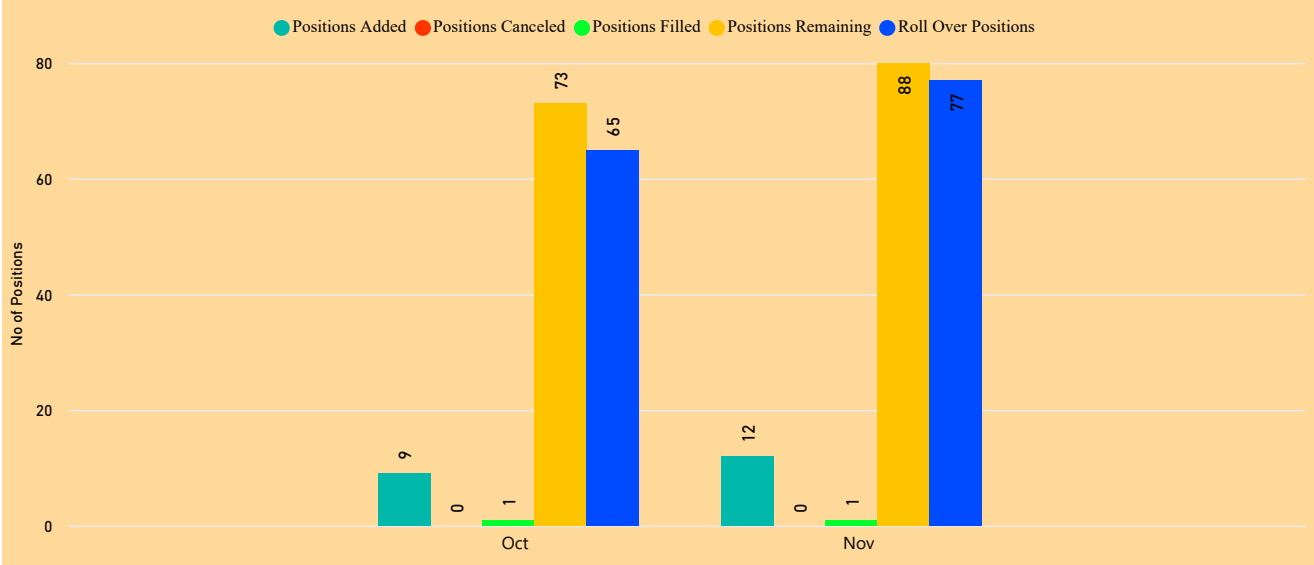
PEOPLE AND TALENT

Human Resources

Recruitment Activity - Previous Fiscal Year



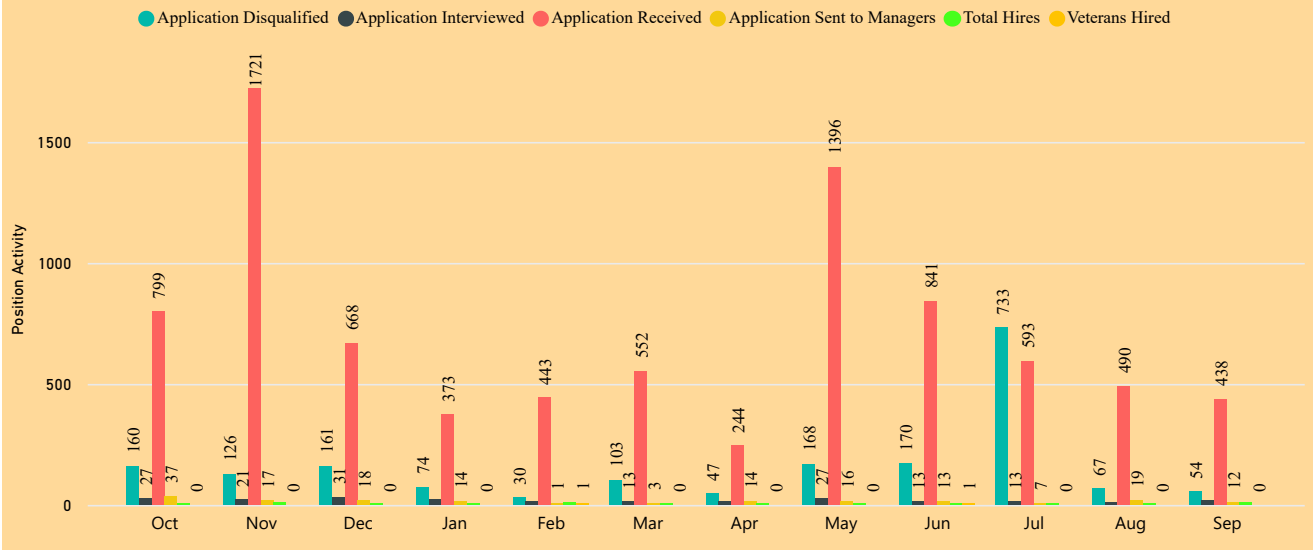
Recruitment Activity - Current Fiscal Year



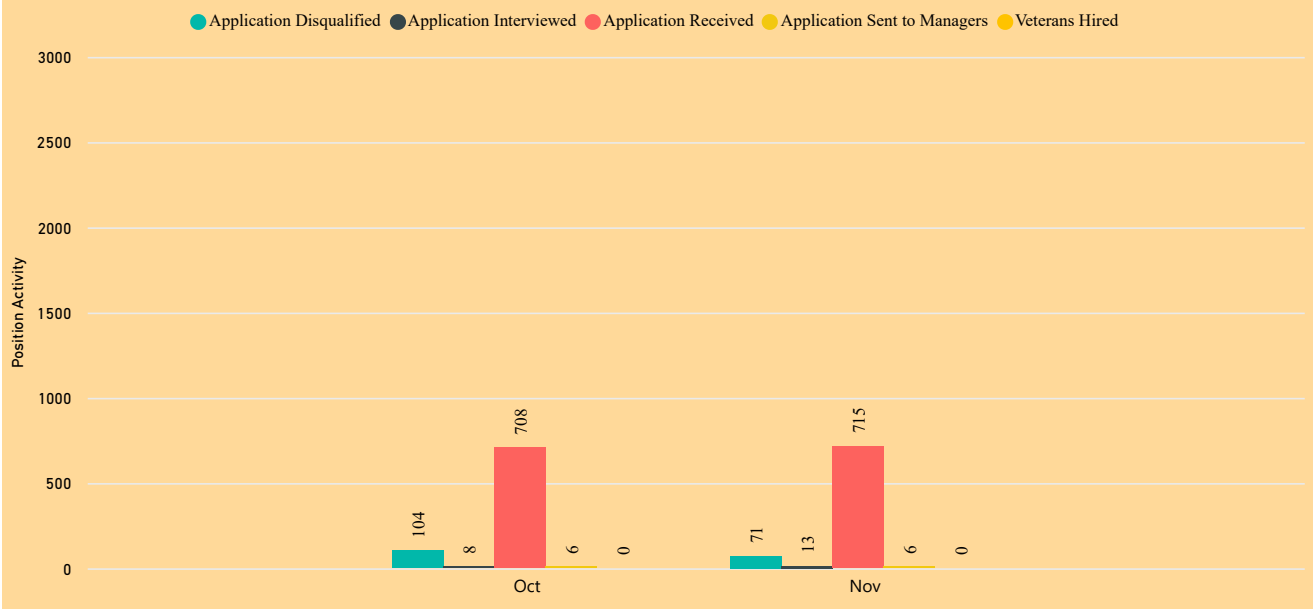
PEOPLE AND TALENT

Human Resources

Recruitment Performance Metric - Previous Fiscal Year

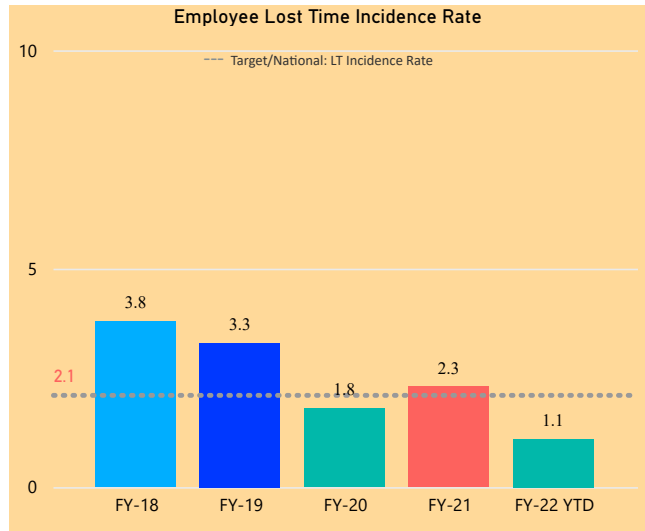
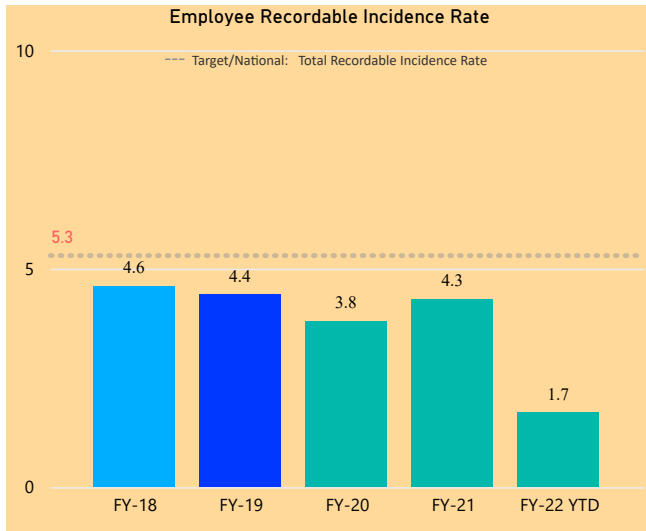


Recruitment Performance Metric - Current Fiscal Year



ADMINISTRATION

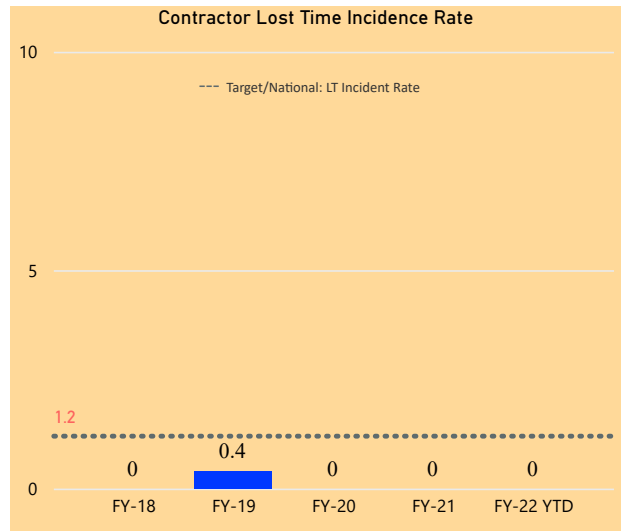
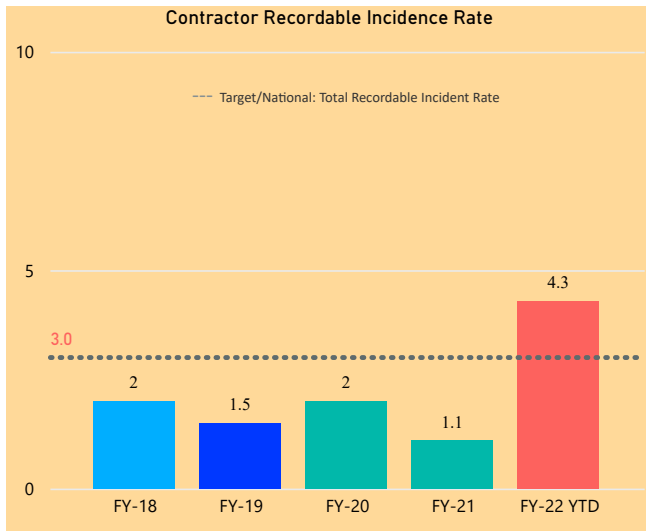
Safety



There have been 2 lost time incidents in FY 2022 YTD

ADMINISTRATION

Safety



There have been 0 lost time incidents in FY 2022 YTD.

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

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 %.

OPERATIONS & ENGINEERING

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

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

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

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****

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

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, □)

- 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

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 Per Month

- 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***

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

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

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

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

CUSTOMER EXPERIENCE

CUSTOMER CARE

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

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***

PEOPLE AND TALENT

HUMAN RESOURCES

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.

Dynamic Color Coding Legend

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

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

ADMINISTRATION

SAFETY

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, □)



Summary of Contracts on Consent Agenda

282nd Meeting of the DC Water Board of Directors

Thursday, January 6, 2022

Non-Joint Use Contracts

Resolution No. 22-02, execute Change Order No. 001 of Contract No. 190020, Anchor Construction Corporation. The purpose of the change order is to increase the contract by 43% from FY20 to FY 21 due to an increase in sewer lateral replacements performed by the Sanitary Sewer Lateral Replacement Contractor due to the pandemic and not able to enter individual homes. The change order amount is \$5,000,000.

Resolution No. 22-03, execute Contract No. 180030, Spinello Companies. The purpose of the contract is to replace small diameter water mains that have experienced failures, or have a history of low water pressure, or water quality issues across various locations within the District of Columbia. The contract amount is \$14,673,300.

Resolution No. 22-04, execute Contract No. 10140, RedZone Robotics, Inc. The purpose of the contract is to perform video inspection and assessment of all small, local sewers within DC Water's Service Area. The contract amount is \$5,858,000.

Resolution No. 22-05, execute the Approval to Participate in the District Department of Transportation's (DDOT) Project to Reconstruct Martin Luther King Jr., Ave., SE Phase II from South Capitol Street, SE to 4th Street, SE Under the MOU between DDOT and DC Water under the 2002 Memorandum of Understanding. The purpose of participating is to replace small diameter water mains that have experienced failures, or have a history of low water pressure, or water quality issues within the District of Columbia in conjunction with DDOT's project. The amount is \$2,753,000.

Presented and Adopted: January 6, 2022

Subject: Approving the Final Form of Certain Documents,
Authorizing Exchange/Tender Offer and the Sale and Setting Terms and
Details of the Series 2022B, Series 2022C, and Series 2022D Bonds

#22-00
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 January 6, 2022, 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 Computershare Trust Company, N.A., as trustee (the “Trustee”) (its predecessors in that capacity having been Norwest Bank Minnesota, N.A., Wells Fargo Bank Minnesota, N.A. and Wells Fargo Bank, 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-nine (29) 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 Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) (the “Series 2022B Bonds”) to: (a) finance a portion of the costs of the Authority’s DC Clean Rivers Project (as defined in the preliminary Official Statement for the Series 2022B/C/D Bonds (as defined below)); (b) fund a Series 2022B Debt Service Reserve Requirement, (as defined herein), if determined necessary; and (c) pay certain costs of issuance; (ii) to issue Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C (the “Series 2022C Bonds” and, collectively with the Series 2022B Bonds, the “Series 2022B/C 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) finance the purchase or provide for the exchange pursuant to an offer to exchange or tender for purchase ("Exchange/Tender Offer") of all or a portion of the Authority's outstanding Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2014C (the "Series 2014C Bonds"), Public Utility Subordinate Lien Revenue Bonds, Series 2015A (Green Bonds) (the "Series 2015A Bonds") and Public Utility Subordinate Lien Revenue Bonds, Series 2015B (the "Series 2015B Bonds" and, collectively with the Series 2014C Bonds and the Series 2015A Bonds, the "Target Bonds") that are tendered for purchase (the "Tendered Bonds") or exchanged (the "Exchanged Bonds") by the holders thereof in response to the Authority's Exchange/Tender Offer; (d) fund a Series 2022C Debt Service Reserve Requirement, (as defined herein), if determined necessary; and (e) pay certain costs of issuance; (iii) to issue Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable) (the "Series 2022D Bonds" and, collectively with the Series 2022B/C Bonds, the "Series 2022B/C/D Bonds") to: (a) finance a portion of the Authority's share of the Washington Aqueduct's capital improvements and certain Costs of the System, (b) refund some or all of the Authority's outstanding Series 2014C Bonds, Series 2015A Bonds and Series 2015B Bonds; (c) fund a Series 2022D Debt Service Reserve Requirement, (as defined herein), if determined necessary; and (d) pay certain costs of issuance; (iv) to designate the Series 2022B/C/D Bonds as Subordinate Debt for purposes of the Indenture; and (iv) to secure the Series 2022B/C/D Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, the CEO and General Manager, the Chief Financial Officer and Executive Vice President, Finance and Procurement, the Chief Engineer and the Chief Legal Officer and Executive Vice President, Legal Affairs and 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 December 14, 2021, to review the issuance of the Series 2022B/C/D 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 Thirtieth Supplemental Indenture and the Thirty-First 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, the Chief Financial Officer and Executive Vice President, Finance and Procurement, 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 for the Series 2022B/C/D Bonds between the Authority and the 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 2022B/C/D Bonds to the Original Purchasers and the holders of the Exchanged Bonds, specifying terms of the Series 2022B/C/D Bonds, as provided for in Section 4 of this Resolution and identifying the Tendered Bonds, the Exchanged Bonds and the Refunded Bonds, if any.

“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 2022B/C/D Bonds, as originally executed and as it may be amended from time to time in accordance with its terms.

“Dealer Manager” means Goldman Sachs & Co. LLC.

“Dealer Manager Agreement” means the Dealer Manager Agreement between the Authority and the Dealer Manager and the materials attached thereto relating to the Exchange/Tender Offer.

“Escrow Agent” means the Trustee as Escrow Agent.

“Escrow Agreement” means the Escrow Agreement, dated the same date as the Series 2022D Bonds, between the Authority and the Escrow Agent, providing for the Refunded Bonds to be deemed paid and no longer Outstanding under the Indenture.

“Financial Advisor” means, collectively, PFM Financial Advisors LLC and Sustainable Capital Advisors.

“Interest Payment Dates” means for the Series 2022B/C/D 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 2022B/C/D Bonds are Outstanding.

“Invitation” means the Invitation to Exchange or Tender Bonds and other ancillary documents relating to the Authority’s offer to exchange or purchase the Target Bonds.

“Original Purchasers” for the Series 2022B/C/D Bonds means, other than the Subseries 2022C-2 Bonds that are exchanged for the Exchanged Bonds, the purchasers identified as such in the Bond Purchase Agreement.

"Refunded Bonds" means any Outstanding Series 2014C Bonds, Series 2015A Bonds and Series 2015B Bonds to be caused to be deemed paid and no longer Outstanding under the Indenture as the result of the deposit of proceeds of the Series 2022D Bonds and any other funds in escrow under the Escrow Agreement and identified as the Refunded Bonds in the Certificate of Award.

“Savings Threshold” means that, as the result of the tender of the Tendered Bonds, the exchange of the Exchanged Bonds and the advanced refunding of the Refunded Bonds, the Authority will achieve an aggregate reduction in bond debt service that has a present value at the time of sale of the Series 2022B/C/D Bonds equal to at least ten percent (10%) and will fulfill any other standards that any Authorized Official executing the Certificate of Award deems appropriate.

“Series 2022B Debt Service Reserve Requirement” means, if determined in the Certificate of Award to be necessary, a required fund balance in the Series 2022B Debt Service Reserve Account or Accounts established under the Thirtieth 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 2022B Debt Service Reserve Account in the amount of the specified required fund balance will not cause the interest on any Series 2022B Bonds intended to be excluded from gross income for federal income tax purposes not to be so excluded.

“Series 2022C Debt Service Reserve Requirement” means, if determined in the Certificate of Award to be necessary, a required fund balance in the Series 2022C Debt Service Reserve Account or Accounts established under the Thirtieth 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 2022C Debt Service Reserve Account in the amount of the specified required fund balance will not cause the interest on any Series 2022C Bonds intended to be excluded from gross income for federal income tax purposes not to be so excluded.

“Series 2022D Debt Service Reserve Requirement” means, if determined in the Certificate of Award to be necessary, a required fund balance in the Series 2022D Debt

Service Reserve Account or Accounts established under the Thirty-First Supplemental Indenture, the amount of which shall be specified in the Certificate of Award.

“Thirtieth Supplemental Indenture” means the Thirtieth Supplemental Indenture of Trust by and between the Authority and the Trustee, dated as of the same date as and relating to the Series 2022B/C Bonds.

“Thirty-First Supplemental Indenture” means the Thirty-First Supplemental Indenture of Trust by and between the Authority and the Trustee, dated as of the same date as and relating to the Series 2022D 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 2022B/C/D Bonds.

(a) *Series 2022B 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) One Hundred Million Dollars (\$100,000,000) aggregate principal amount of Series 2022B Bonds. The Series 2022B Bonds shall be designated “Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds)” and shall constitute Subordinate 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 2022B Debt Service Reserve Requirement, if determined necessary in the Certificate of Award; and (c) paying issuance costs of the Series 2022B Bonds (including the fees and costs of any independent sustainability consultant engaged pursuant to Section 6). For those purposes the proceeds from the sale of the Series 2022B Bonds shall be allocated and deposited, as provided in the Thirtieth Supplemental Indenture. If and to the extent that any Series 2022B Bonds are issued for the purpose of funding a Series 2022B Debt Service Reserve Requirement, then the aggregate principal amount of Series 2022B Bonds hereby authorized may exceed \$100,000,000 by the aggregate principal amount of the Series 2022B Bonds to be issued for that purpose. Any designation of bonds authorized above may be revised or clarified in the Certificate of Award.

(b) *Series 2022C Bonds.* The Authority is authorized to issue, sell and deliver, as provided in this Resolution and the Certificate of Award, the Series 2022C Bonds which shall be designated “Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C” and shall constitute Subordinate Debt for purposes of the Indenture. The Series 2022C Bonds shall consist of two subseries, Subseries 2022C-1 (the “Subseries 2022C-1 Bonds”) and Subseries 2022C-2 (the “Subseries 2022C-2 Bonds”) as follows

(i) Subseries 2022C-1 Bonds. The aggregate principal amount of the Subseries 2022C-1 Bonds the Authority is authorized to issue, sell and deliver shall not

exceed (except as provided below) One Hundred Twenty Million Dollars (\$120,000,000) 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) financing the purchase pursuant to the Exchange/Tender Offer of the Tendered Bonds and causing the Tendered Bonds to be deemed paid and no longer Outstanding for purposes of the Indenture; (D) funding a portion of the Series 2022C Debt Service Reserve Requirement, if determined necessary in the Certificate of Award; and (E) paying a portion of the issuance costs of the Series 2022C Bonds (including fees and costs associated with the Exchange/Tender Offer including those of an information agent and a tender/exchange agent). For those purposes the proceeds from the sale of the Subseries 2022C-1 Bonds shall be allocated and deposited, as provided in the Thirtieth Supplemental Indenture. If and to the extent that any Subseries 2022C-1 Bonds are issued for the purpose of (A) financing the purchase pursuant to the Exchange/Tender Offer of the Tendered Bonds or (B) funding a portion of the Series 2022C Debt Service Reserve Requirement, then the aggregate principal amount of Subseries 2022C-1 Bonds hereby authorized may exceed \$120,000,000 by the aggregate principal amount of the Subseries 2022C-1 Bonds to be issued for these purposes.

(ii) Subseries 2022C-2 Bonds. The Subseries 2022C-2 Bonds shall be issued for the purpose of: (A) exchanging the Subseries 2022C-2 Bonds in place of the Exchanged Bonds and causing the Exchanged Bonds to be no longer Outstanding for purposes of the Indenture; (B) funding a portion of the Series 2022C Debt Service Reserve Requirement, if determined necessary in the Certificate of Award; and (C) paying a portion of the issuance costs of the Series 2022C Bonds (including fees and costs associated with the Exchange/Tender Offer including those of an information agent and a tender/exchange agent). For those purposes the proceeds from the sale of the Subseries 2022C-2 Bonds shall be allocated and deposited, as provided in the Thirtieth Supplemental Indenture.

Any designation of bonds authorized above may be revised or clarified in the Certificate of Award.

(c) Series 2022D Bonds. The Authority is authorized to issue, sell and deliver, as provided in this Resolution and the Certificate of Award, the Series 2022D Bonds which shall be designated "Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable)" and shall constitute Subordinate Debt for purposes of the Indenture. The Series 2022D Bonds shall consist of two subseries, Subseries 2022D-1 (the "Subseries 2022D-1 Bonds") and Subseries 2022D-2 (the "Subseries 2022D-2 Bonds") as follows

(i) Subseries 2022D-1 Bonds. The aggregate principal amount of the Subseries 2022D-1 Bonds the Authority is authorized to issue, sell and deliver shall not exceed (except as provided below) Eighty Million Dollars (\$80,000,000) for the purpose of: (A) financing a portion of the Authority's share of the Washington Aqueduct's capital improvements and certain Costs of the System; (B) funding a portion of the Series 2022D Debt Service Reserve Requirement, if determined necessary in the Certificate of Award; and (C) paying a portion of the issuance costs of the Series 2022D Bonds. If and to the

extent that any Subseries 2022D-1 Bonds are issued for the purpose of funding a portion of the Series 2022D Debt Service Reserve Requirement, then the aggregate principal amount of Subseries 2022D-1 Bonds hereby authorized may exceed \$80,000,000 by the aggregate principal amount of the Subseries 2022D-1 Bonds to be issued for that purpose.

(ii) Subseries 2022D-2 Bonds. The Subseries 2022D-2 Bonds shall be issued for the purpose of: (A) advance refunding the Refunded Bonds and causing the Refunded Bonds to be deemed paid and no longer Outstanding for purposes of the Indenture; (B) funding a portion of the Series 2022D Debt Service Reserve Requirement, if determined necessary in the Certificate of Award; and (C) paying a portion of the issuance costs of the Series 2022D Bonds (including the fees and costs of any escrow bidding agent or verification agent engaged pursuant to Section 6); provided, however, that before an Authorized Official executes the Certificate of Award, the Authority's Financial Advisor shall have given the Authority a written certification that identifies the Tendered Bonds, the Exchanged Bonds and the Refunded Bonds (consistent with this Resolution) and determines that the Authority's issuance and sale of the Subseries 2022C-1 Bonds issued to purchase the Tendered Bonds, the Subseries 2022C-2 Bonds and the Subseries 2022D-2 Bonds on the terms set forth in the Certificate of Award and the application of the proceeds of the Subseries 2022C-1 Bonds, Subseries 2022C-2 Bonds and Subseries 2022D-2 Bonds and any other legally available funds to finance the purchase of the Tendered Bonds and to advance refund the Refunded Bonds identified in the Financial Advisor's certificate as well as the exchange of any Exchanged Bonds for Subseries 2022C-2 Bonds, will meet the Savings Threshold.

The proceeds from the sale of the Series 2022D Bonds shall be allocated and deposited for those purposes and as provided in the Thirty-First Supplemental Indenture. 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 2022B/C/D Bonds.

(a) Form, Transfer and Exchange. The Series 2022B/C/D Bonds: (i) shall initially be issued only in fully registered form and substantially in the forms attached as Exhibits to the Thirtieth Supplemental Indenture and the Thirty-First Supplemental Indenture, as applicable; (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 Thirtieth Supplemental Indenture or the Thirty-First Supplemental Indenture, as applicable.

(b) Denominations and Dates. The Series 2022B/C/D Bonds shall be dated as of the date of issuance and delivery, but in no event later than September 30, 2022, and there shall be a single Series 2022B/C/D Bond representing each interest rate for each maturity of the Series 2022B/C/D Bonds bearing the same series or subseries designation as provided in the Thirtieth Supplemental Indenture or the Thirty-First Supplemental Indenture, as applicable.

(c) Principal Maturities. The principal of the Series 2022B/C/D 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 Certificates of Award, provided that the final principal retirement date shall be no later than December 31, 2062 and, with respect to the Subseries 2022C-1 Bonds issued to purchase the Tendered Bonds, Subseries 2022C-2 Bonds and Subseries 2022D-2 Bonds, the principal retirement schedule shall be consistent with the achievement on an aggregate basis of the Savings Threshold.

(d) Interest Rates and Interest Rate Periods for the Series 2022B/C/D Bonds.

(i) *Series 2022B, Subseries 2022C-1 Bonds and Subseries 2022D-1 Bonds*. The Series 2022B Bonds, Subseries 2022C-1 Bonds and Subseries 2022D-1 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 2022B Bonds, Subseries 2022C-1 Bonds and Subseries 2022D-1 Bonds shall not exceed five and one half percent (5.50%) per annum (excluding any Subseries 2022C-1 Bonds issued to purchase the Tendered Bonds).

(ii) *Subseries 2022C-2 Bonds, Series 2022D-2 Bonds and Certain Subseries 2022C-1 Bonds*. The Subseries 2022C-1 Bonds issued to purchase the Tendered Bonds, the Subseries 2022C-2 Bonds and the Series 2022D-2 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 Subseries 2022C-1 Bonds issued to purchase the Tendered Bonds, the Subseries 2022C-2 Bonds and the Subseries 2022D-2 Bonds shall not exceed a rate that would cause the Savings Threshold not to be achieved. The principal of the Subseries 2022C-1 Bonds issued to purchase the Tendered Bonds, the Subseries 2022C-2 Bonds and the Subseries 2022D-2 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 principal retirement schedule shall be consistent with the achievement of the Savings Threshold.

(e) Optional and Mandatory Redemption.

(i) *Optional Redemption of Series 2022B/C Bonds* - The Series 2022B/C Bonds maturing on or before any date specified in the Certificate of Award as

the Earliest Optional Redemption Date for the applicable Series 2022B/C Bonds or subseries thereof (which shall be no later than the outside date permitted by law) are not subject to prior optional redemption. Any Series 2022B/C Bond maturing after the applicable Earliest Optional Redemption Date for such Series 2022B/C Bonds or subseries thereof shall be subject to redemption at the option of the Authority, prior to their stated maturities on or after such 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 applicable Series 2022B/C Bonds to be redeemed.

(ii) *Optional Redemption of Series 2022D Bonds* – Prior to such date or dates specified in the Certificate of Award for the various maturities of the Series 2022D Bonds, the applicable Series 2022D Bonds shall be subject to make whole redemption prior to their stated maturities, at the option of the Authority, from any source of available funds, as a whole or in part, as specified in Section 301(a)(i) of the Thirty-First Supplemental Indenture. From and after the date or dates specified in the Certificate of Award, the applicable Series 2022D Bonds shall be subject to redemption prior to their stated maturities, at the option of the Authority, from any source of available funds, as a whole or in part, as specified in Section 301(a)(ii) of the Thirty-First Supplemental Indenture.

(iii) *Mandatory Sinking Fund Redemption* - Any Series 2022B/C/D 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.

(f) Redemption Provisions. Redemption of Series 2022B/C/D Bonds shall be effected in accordance with Article IV of the Master Indenture; provided, however, that notices of redemption of the Series 2022B/C/D 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.

(g) Places and Manner of Payment. The principal of and the interest and any redemption premium on the Series 2022B/C/D Bonds shall be payable at the places and in the manner specified in the Thirtieth Supplemental Indenture or the Thirty-First Supplemental Indenture, as applicable.

(h) Execution. The Authorized Officials are, and each of them is, authorized and directed to execute the Series 2022B/C/D Bonds, and the Secretary of the Board is authorized and directed to affix the seal of the Authority to the Series 2022B/C/D Bonds and to deliver them to the Trustee for authentication in accordance with the Indenture.

Section 4. Sale of Series 2022B/C/D Bonds.

(a) General. The Series 2022B/C/D Bonds, other than the Subseries 2022C-2 Bonds that are exchanged for the Exchanged Bonds, shall be awarded and sold to the 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 2022B/C/D Bonds times the percentage of such principal amount at which such Series 2022B/C/D 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 2022B/C/D 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 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 2022B/C/D Bonds and the sale thereof and the exchange of the Subseries 2022C-2 Bonds for the Exchanged Bonds, all as provided in this Resolution, the Bond Purchase Agreement, the Invitation, the Dealer Manager Agreement, the Certificate of Award, the Thirtieth Supplemental Indenture and the Thirty-First 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 2022B/C/D Bonds approved in the Certificate of Award shall be incorporated into the Thirtieth Supplemental Indenture or the Thirty-First Supplemental Indenture, as applicable. The Certificate of Award, subject to the restrictions set forth herein, shall: (i) with respect to each series or subseries of the Series 2022B/C/D 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 any of the Series 2022B/C/D Bonds and, if so, from whom and on what terms; (iii) specify the amount, if any, of the Series 2022B Debt Service Reserve Requirement, the Series 2022C Debt Service Reserve Requirement and the Series 2022D 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. The Certificate of Award shall identify the Tendered Bonds, the Exchanged Bonds and the Refunded Bonds, if any.

(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 any of the Series 2022B/C/D 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 2022B 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 2022B Bonds. There is hereby authorized to be paid from the moneys deposited in the Series 2022C 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 2022C Bonds. There is hereby authorized to be paid from the moneys deposited in the Series 2022D 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 2022D 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 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 Original Purchasers to establish the date, location, procedure and conditions for the delivery of the Series 2022B/C/D Bonds (other than the Subseries 2022C-2 Bonds) to the 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 2022B/C/D Bonds, and the execution, authentication and delivery of the applicable Series 2022B/C/D Bonds to DTC for the accounts of the 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. The Authorized Officials are, and each of them is, authorized and directed to make the necessary arrangements with the holders of the Exchanged Bonds to establish the date, location, procedure and conditions for the

delivery of the Subseries 2022C-2 Bonds exchanged in place of the Exchanged Bonds in accordance with the Exchange/Tender Offer.

Section 5. Allocation of Proceeds of the Series 2022B/C/D Bonds; Tax Covenants.

(a) Allocation of Proceeds of the Series 2022B/C Bonds. The proceeds from the sale of the Series 2022B/C Bonds shall be allocated, deposited and credited for the purposes approved in this Resolution and as specified in the Thirtieth Supplemental Indenture.

(b) Allocation of Proceeds of the Series 2022D Bonds. The proceeds from the sale of the Series 2022D Bonds shall be allocated, deposited and credited for the purposes approved in this Resolution and as specified in the Thirty-First Supplemental Indenture.

(c) 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 2022B/C Bonds.

Section 6. Thirtieth Supplemental Indenture, Thirty-First Supplemental Indenture, Dealer Manager Agreement, Invitation to Exchange or Tender Bonds, Escrow Agreement and Other Documents. The Authorized Officials are, and each of them is, authorized in connection with the issuance of the Series 2022B/C/D Bonds, to execute, acknowledge and deliver in the name of and on behalf of the Authority, the Thirtieth Supplemental Indenture and the Thirty-First Supplemental Indenture, each 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 are, and each of them is, authorized in connection with the issuance of the Series 2022B Bonds, to engage Vigeo Eiris USA LLC as an independent sustainability consultant to prepare an opinion regarding the Authority's DC Clean Rivers Project.

The Authorized Officials are, and each of them is, authorized in connection with the issuance of the Series 2022C Bonds, to execute, acknowledge and deliver in the name of and on behalf of the Authority, the Dealer Manager Agreement together with the materials attached thereto relating to the Exchange/Tender Offer, including the proposed form of the Invitation, 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 are, and each of them is, authorized and directed, in their official capacities, to execute and

deliver the certificates required by the Dealer Manager Agreement to be executed on behalf of the Authority.

The Dealer Manager is authorized to conduct the Exchange/Tender Offer described in the Dealer Manager Agreement on behalf of the Authority, including the distribution of the Invitation, provided that nothing contained herein or in the Invitation shall be deemed to preclude the Dealer Manager from seeking exchanges of the Target Bonds from individual owners thereof on terms different from those set forth in the Invitation.

The Authorized Officials are, and each of them is, authorized in connection with the issuance of the Subseries 2022D-2 Bonds, to execute, acknowledge and deliver in the name of and on behalf of the Authority, the Escrow Agreement, 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. If in the Certificate of Award, an Authorized Official determines that it is in the Authority's best interest to authorize the purchase of open-market securities to effect the advance refunding of the Refunded Bonds, the Authorized Official is authorized to engage an agent for the purchase of such securities. With respect to the Escrow Agreement and to the extent any escrow securities are to be purchased thereunder, the Certificate of Award shall designate an independent firm experienced in the preparation of verification reports to verify or certify such escrow securities to be of such maturities and interest payment dates, and to bear such interest, as will, without further investment or reinvestment of either the principal amount thereof or the interest earnings therefrom, be sufficient together with any cash deposited with and to be retained in that form by the Escrow Agent, to pay the principal of and interest and any premium on the Refunded Bonds, on their respective maturity or redemption date or dates, as provided in the Escrow Agreement.

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 2022B/C/D 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 Thirtieth Supplemental Indenture, the Thirty-First Supplemental Indenture, the Bond Purchase Agreement, the Escrow Agreement, the Dealer Manager Agreement, the Invitation 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 2022B/C/D 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 2022B/C/D 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 Original Purchasers for distribution to prospective purchasers of the Series 2022B/C/D 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 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 (i) the holders of the Exchanged Bonds and (ii) the Original Purchasers to sell book entry interests in the Series 2022B/C/D 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 Original Purchasers as may be reasonably requested to qualify the Series 2022B/C/D 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 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 Original Purchasers and to specify the final principal amount, interest rates and redemption provisions of the Series 2022B/C/D Bonds, the price of the Series 2022B/C/D Bonds to the general public, any credit enhancement provisions with respect to the Series 2022B/C/D Bonds and any change in ratings of the Series 2022B/C/D 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 2022B/C/D 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 2022B/C/D Bonds may, and the Trustee may (and, at the request of the Holders of at least 25% in aggregate principal amount of Outstanding Series 2022B/C/D 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 Original Purchasers of the Series 2022B/C/D Bonds a true and certified transcript of all proceedings relating to the authorization and issuance of the Series 2022B/C/D Bonds along with other information as is necessary or proper with respect to the Series 2022B/C/D Bonds.

Section 9. Multiple Series. Notwithstanding anything herein to the contrary, if the Chief Financial Officer and Executive Vice President, Finance and Procurement, determines it to be advantageous to the Authority, each of the Series 2022B Bonds, the Series 2022C Bonds and the Series 2022D Bonds may be issued in one or more separate series or subseries, each bearing a distinctive designation, provided that the Series 2022B/C/D 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 2022B/C/D Bonds may be issued at the same or different times and so may have different dates of issuance. The Series 2022B/C/D 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 Thirtieth Supplemental Indenture or the Thirty-First Supplemental Indenture, as applicable, shall refer to each and all such Supplemental Trust Indentures, but any Supplemental Trust Indenture subsequent to the

Thirtieth 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.

This Resolution is effective immediately.

Secretary to the Board of Directors

THIRTIETH SUPPLEMENTAL INDENTURE OF TRUST

between

**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

and

**COMPUTERSHARE TRUST COMPANY, N.A.
AS TRUSTEE**

Dated [_____, 2022]

THIS THIRTIETH SUPPLEMENTAL INDENTURE OF TRUST dated the ___ day of [_____], 2022 (as defined in more detail below, the “**Thirtieth Supplemental Indenture**”), by and between the District of Columbia Water and Sewer Authority (the “**Authority**”), an independent authority of the District of Columbia (the “**District**”), and Computershare Trust Company, N.A., a national banking association, having a corporate trust office in Minneapolis, Minnesota, as trustee (in such capacity, together with any successor in such capacity, herein called the “**Trustee**”), provides:

WHEREAS, the Authority and the Trustee (its predecessor in that capacity having been Norwest Bank, N.A.) entered into the Master Indenture of Trust, dated as of April 1, 1998 (the “**Master Indenture**” and, as previously supplemented and amended by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture and the Twenty-Ninth Supplemental Indenture, all as hereinafter defined, and as it may further be supplemented and amended in accordance with its terms, 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 defined in the Master Indenture); and

WHEREAS, pursuant to the First Supplemental Indenture of Trust, dated as of April 1, 1998 (the “**First Supplemental Indenture**”), between the Authority and the Trustee, the Authority issued its Public Utility Revenue Bonds, Series 1998 (the “**Series 1998 Senior Lien Bonds**”) in the aggregate principal amount of \$266,120,000, to finance Costs of the System (as defined in the Master Indenture) and to refund then outstanding debt of the Authority; and

WHEREAS, the Master Indenture permits the Authority, for certain purposes and subject to certain conditions, to issue Other System Indebtedness (as defined therein) secured on a parity with the Series 1998 Senior Lien Bonds and referred to collectively with the Series 1998 Senior Lien Bonds as “Senior Debt,” and also permits the Authority to issue Subordinate Debt (as defined therein), to which it has pledged to its payment Net Revenues, as a subordinate lien pledge after the pledge of Net Revenues to Senior Debt; and

WHEREAS, pursuant to the Second Supplemental Indenture of Trust, dated as of November 1, 2001 (the “**Second Supplemental Indenture**”), between the Authority and the Trustee, the Authority amended and supplemented the Master Indenture in accordance with its terms to clarify provisions thereof related to certain forms of Indebtedness (as defined in the Master

Indenture, i.e., Senior Debt and Subordinate Debt) and thereby facilitate the issuance of such forms of Indebtedness; and

WHEREAS, pursuant to the Third Supplemental Indenture of Trust, dated as of November 1, 2001 (the “**Third Supplemental Indenture**”), between the Authority and the Trustee, the Authority (i) issued its Commercial Paper Notes defined therein as the Series A-B Notes, (ii) designated the Series A-B Notes as Subordinate Debt for purposes of the Indenture, and (iii) made provision for the securing of the Series A-B Notes and of the Reimbursement Obligations to the Bank that provided the Letters of Credit (all as defined therein) that secure the Series A-B Notes; and

WHEREAS, pursuant to the Fourth Supplemental Indenture of Trust, dated August 12, 2003 (the “**Fourth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinated Lien Revenue Bonds, Series 2003, dated August 12, 2003 (the “**Series 2003 Subordinated Bonds**”), in the aggregate principal amount of \$176,220,000 to finance certain Costs of the System and retire the Series 2001 Notes, (ii) designated the Series 2003 Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2003 Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Fifth Supplemental Indenture of Trust, dated August 3, 2004 (the “**Fifth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinated Lien Revenue Bonds, Series 2004, as Subseries 2004A-1, Subseries 2004A-2, Subseries 2004B-1 and Subseries B-2 (collectively, the “**Series 2004 Subordinated Bonds**”) in the aggregate principal amount of \$295,000,000 to finance certain Costs of the System, (ii) designated the Series 2004 Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2004 Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Sixth Supplemental Indenture of Trust, dated June 6, 2007 (the “**Sixth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinated Lien Revenue Bonds, Series 2007A (the “**Series 2007A Subordinated Bonds**”), in the aggregate principal amount of \$218,715,000 to finance certain Costs of the System and retire the Series 2001 Notes, (ii) designated the Series 2007A Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2007A Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Seventh Supplemental Indenture of Trust, dated June 6, 2007 (the “**Seventh Supplemental Indenture**”), between the Authority and the Trustee, the Authority:

(i) issued its Public Utility Subordinated Lien Taxable Revenue Bonds, Series 2007B (the “**Series 2007B Subordinated Bonds**”), in the aggregate principal amount of \$59,000,000 to finance certain Costs of the System, (ii) designated the Series 2007B Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2007B Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Eighth Supplemental Indenture of Trust, dated April 24, 2008 (the “**Eighth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinated Lien Revenue Refunding Bonds, Series 2008 (the “**Series 2008 Subordinated Bonds**”), in the aggregate principal amount of \$290,375,000 to (a) currently refund all of the outstanding Series 2004 Subordinated Bonds and a portion of the Series 2007B Subordinated Bonds, and (b) pay issuance costs of the Series 2008 Subordinated Bonds, (ii) designated the Series 2008 Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2008 Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Ninth Supplemental Indenture of Trust, dated December 19, 2008 (the “**Ninth Supplemental Indenture**”), between the Authority and the Trustee, the Authority agreed to confer on the Holders of the Series 2003 Subordinated Bonds additional rights related to the Reserve Credit Facility (as defined therein) and to cure any ambiguity or omission in the Indenture regarding the obligations of the Authority as a consequence of a downgrade of the Reserve Policy related to the Series 2003 Subordinated Bonds, or in the event that the Reserve Policy were to cease to be in effect; and

WHEREAS, pursuant to the Tenth Supplemental Indenture of Trust, dated February 12, 2009 (the “**Tenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Senior Lien Revenue Bonds, Series 2009A (the “**Series 2009A Senior Lien Bonds**”), in the aggregate principal amount of \$300,000,000 to finance certain Costs of the System and retire Series 2001 Notes, (ii) designated the Series 2009A Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (iii) secured the Series 2009A Senior Lien 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, pursuant to the Eleventh Supplemental Indenture of Trust, dated June 2, 2010, as supplemented and amended by the First Amendment to Eleventh Supplemental Indenture of Trust, dated April 5, 2013, and by the Second Amendment to Eleventh Supplemental Indenture of Trust, dated May 18, 2015 (together, the “**Eleventh Supplemental Indenture**”), each between the Authority and the Trustee, the Authority: (i) authorized the issuance of its (a) Commercial Paper Notes, Series A (the “**2010 Series A Notes**”) in the aggregate principal amount of \$0 to finance certain Costs of the System, (b) Commercial Paper Notes, Series B (the “**2010 Series B**

Notes") in the aggregate principal amount of \$100,000,000 to finance certain Costs of the System, and (c) Commercial Paper Notes, Series C (the "**2010 Series C Notes**" and, together with the 2010 Series A Notes and the 2010 Series B Note, the "**Series 2010 Notes**") in the aggregate principal amount of \$50,000,000 to finance certain Costs of the System, (ii) designated the Series 2010 Notes as Subordinate Debt for purposes of the Indenture, and (iii) made provision for the securing of the Series 2010 Notes and of the Authority's reimbursement obligations to the Bank (as defined in the Eleventh Supplemental Indenture) that provided the Substitute Letters of Credit (as defined in the Eleventh Supplemental Indenture) that secure the Series 2010 Notes; and

WHEREAS, pursuant to the Twelfth Supplemental Indenture of Trust, dated October 27, 2010 (the "**Twelfth Supplemental Indenture**"), between the Authority and the Trustee, the Authority (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2010A (Federally Taxable – Issuer Subsidy – Build America Bonds) (the "**Series 2010A Subordinated Bonds**") in the aggregate principal amount of \$300,000,000 to finance certain Costs of the System and fund capitalized interest on a portion of the Series 2010A Subordinate Bonds, subject to specified limitations, (ii) designated the Series 2010A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, (iii) secured the Series 2010A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, and (iv) included provisions in the Indenture related to potential Direct Payments (as defined therein) received or expected to be received by the Authority, including certain provisions requiring the consent of the holders of a majority of Outstanding Bonds; and

WHEREAS, pursuant to the Thirteenth Supplemental Indenture of Trust, dated March 22, 2012 (the "**Thirteenth Supplemental Indenture**"), between the Authority and the Trustee, the Authority: (i)(a) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2012A (the "**Series 2012A Subordinate Bonds**") in the aggregate principal of \$177,430,000 to finance certain Costs of the System and pay certain costs of issuance, (b) designated the Series 2012A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (c) secured the Series 2012A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, (ii)(a) issued its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2012B (the "**Series 2012B Subordinate Bonds**") in the aggregate principal amount of \$100,000,000 to finance certain Costs of the System, fund capitalized interest on a portion of the Series 2012B Subordinate Bonds subject to specified limitations, and pay certain costs of issuance, (b) designated the Series 2012B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (c) secured the Series 2012B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, and (iii)(a) issued its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2012C (the "**Series 2012C Subordinate Bonds**") in the aggregate principal amount of \$163,215,000, and applied the proceeds thereof, together with any other funds of the Authority, to advance refund the Series 2003 Subordinated Bonds and caused them to be deemed paid and no longer Outstanding

for purposes of the Indenture, and paid certain costs of issuance, (b) designated the Series 2012C Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (c) secured the Series 2012C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Fourteenth Supplemental Indenture of Trust, dated as of August 1, 2013 (the “**Fourteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2013A in the aggregate principal amount of \$300,000,000 (the “**Series 2013A Subordinate Bonds**”) to finance certain Costs of the System and pay certain costs of issuance, (ii) designated the Series 2013A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2013A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Fifteenth Supplemental Indenture of Trust, dated July 23, 2014 (the “**Fifteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Senior Lien Revenue Bonds, Series 2014A (Federally Taxable) (Green Bonds) in the aggregate principal amount of \$350,000,000 (the “**Series 2014A Senior Lien Bonds**”) to finance certain Costs of the System and pay certain costs of issuance, (ii) designated the Series 2014A Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (iii) secured the Series 2014A Senior Lien 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, pursuant to the Sixteenth Supplemental Indenture of Trust, dated July 23, 2014 (the “**Sixteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2014B, in the aggregate principal amount of \$100,000,000 (the “**Series 2014B Subordinate Bonds**”) to finance certain Costs of the System and pay certain costs of issuance, (ii) designated the Series 2014B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2014B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Seventeenth Supplemental Indenture of Trust, dated November 20, 2014 (the “**Seventeenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2014C, in the aggregate principal amount of \$377,700,000 (the “**Series 2014C Subordinate Bonds**”) to (a) advance refund all or a portion of the Authority’s outstanding Series 2007A Subordinated Bonds, the Series 2008A Subordinated Bonds, and the Series 2009A Senior Lien Bonds, and current refund all of the Authority’s outstanding Subseries 2012B-1 of the Series

2012 Subordinate Bonds, and (b) pay issuance costs of the Series 2014C Subordinate Bonds, (ii) designated the Series 2014C Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2014C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Eighteenth Supplemental Indenture of Trust, dated October 15, 2015 (the “**Eighteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2015A in the aggregate principal amount of \$100,000,000 (the “**Series 2015A Subordinate Bonds**”) to (a) finance certain Costs of the System, and (b) pay issuance costs of the Series 2015A Subordinate Bonds, (ii) designated the Series 2015A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, (iii) secured the Series 2015A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, (iv) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2015B in an aggregate principal amount of \$250,000,000 (the “**Series 2015B Subordinate Bonds**” and, together with the Series 2015A Subordinate Bonds, the “**Series 2015A/B Subordinate Bonds**”) to (a) finance certain Costs of the System, and (b) pay issuance costs of the Series 2015B Subordinate Bonds, (v) designated the Series 2015B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (vi) secured the Series 2015B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Nineteenth Supplemental Indenture of Trust, dated December 1, 2015 (the “**Nineteenth Supplemental Indenture**”) between the Trustee and the Authority, the Authority authorized (i) the issuance of its Extendable Municipal Commercial Paper Notes, Series A (the “**Series A EMCP Notes**”) in the aggregate principal amount of not to exceed \$100,000,000 outstanding at any time to finance certain Costs of the System, (ii) designated the Series A EMCP Notes as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series A EMCP Notes by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twentieth Supplemental Indenture of Trust, dated February 24, 2016 (the “**Twentieth Supplemental Indenture**”) between the Trustee and the Authority, the Authority (i) issued its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2016A in the aggregate principal amount of \$389,110,000 (the “**Series 2016A Subordinate Bonds**”) to (a) refund all or a portion of the Authority’s outstanding Series 2007A Subordinated Bonds, Series 2008A Subordinated Bonds, and Series 2009A Senior Lien Bonds, and (b) pay issuance costs of the Series 2016A Subordinate Bonds, (ii) designated the Series 2016A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series

2016A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-First Supplemental Indenture of Trust, dated September 29, 2016 (the “**Twenty-First Supplemental Indenture**”) between the Trustee and the Authority, the Authority (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2016B (Environmental Impact Bonds) in the aggregate principal amount of \$25,000,000 (the “**Series 2016B Subordinate Bonds**”) to (a) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project); and (b) pay certain costs of issuance, (ii) designated the Series 2016B Subordinate Bonds as Subordinate Debt, as Variable Rate Indebtedness and as Tender Indebtedness for purposes of the Indenture, and (iii) secured the Series 2016B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Second Supplemental Indenture of Trust, dated February 23, 2017 (the “**Twenty-Second Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Senior Lien Revenue Bonds, Series 2017A in the aggregate principal amount of \$100,000,000 (the “**Series 2017A Senior Lien Bonds**”) to (a) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (b) pay issuance costs of the Series 2017A Senior Lien Bonds, (ii) designated the Series 2017A Senior Lien Bonds as Senior Debt for purposes of the Indenture, (iii) secured the Series 2017A Senior Lien 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, (iv) issued its Public Utility Senior Lien Revenue Bonds, Series 2017B in an aggregate principal amount of \$200,000,000 (the “**Series 2017B Senior Lien Bonds**” and, together with the Series 2017A Senior Lien Bonds, the “**Series 2017A/B Senior Lien Bonds**”) to (a) finance certain Costs of the System, and (b) pay issuance costs of the Series 2017B Senior Lien Bonds, (v) designated the Series 2017B Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (vi) secured the Series 2017B Senior Lien 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, pursuant to the Twenty-Third Supplemental Indenture of Trust, dated April 30, 2018 (the “**Twenty-Third Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2018A in the aggregate principal amount of \$100,000,000 (the “**Series 2018A Senior Lien Bonds**”) to (a) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (b) pay issuance costs of the Series 2018A Senior Lien Bonds, (ii) designated the Series 2018A Senior Lien Bonds as Senior Debt for purposes of the Indenture, (iii) secured the Series 2018A Senior Lien 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, (iv) issued its Public Utility Senior Lien Revenue Bonds, Series 2018B in an aggregate principal amount of \$200,000,000 (the “**Series 2018B Senior Lien Bonds**” and, together with the Series 2018A Senior Lien Bonds, the “**Series 2018A/B Senior Lien Bonds**”) to (a) finance certain Costs of the System, (b) pay issuance costs of the Series 2018B Senior Lien Bonds and (c) refund all of the Authority’s then outstanding Commercial paper Notes, Series B, (v) designated the Series 2018B Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (vi) secured the Series 2018B Senior Lien 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, pursuant to the Twenty-Fourth Supplemental Indenture of Trust, dated November 6, 2019 (the “Twenty-Fourth Supplemental Indenture”), between the Authority and the Trustee, the Authority: (i)(a) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2019A (Green Bonds) (the “**Series 2019A Subordinate Bonds**”) in the aggregate principal amount of \$104,010,000 to (1) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (2) pay issuance costs of the Series 2019A Subordinate Bonds, (b) designated the Series 2019A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2019A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, and (ii)(a) issued its Public Utility Subordinate Revenue Bonds, Series 2019B (the “**Series 2019B Subordinate Bonds**” and, together with the Series 2019A Subordinate Bonds, the “**Series 2019A/B Subordinate Bonds**”) in an aggregate principal amount of \$58,320,000 to (1) finance certain Costs of the System, and (2) pay issuance costs of the Series 2019B Subordinate Bonds, (b) designated the Series 2019B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2019B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Fifth Supplemental Indenture of Trust, dated November 6, 2019 (the “Twenty-Fifth Supplemental Indenture”), between the Authority and the Trustee, the Authority: (a) issued its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2019C (the “**Series 2019C Subordinate Bonds**”) in the aggregate principal amount of \$99,505,000 to (1) finance certain Costs of the System, and (2) pay issuance costs of the Series 2019C Subordinate Bonds, (b) designated the Series 2019C Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2019C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Sixth Supplemental Indenture of Trust, dated November 6, 2019 (the “Twenty-Sixth Supplemental Indenture”), between the Authority and the

Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2019D (Federally Taxable) (the “**Series 2019D Subordinate Bonds**”) in the aggregate principal amount of \$343,160,000 to (a) refund the Authority’s outstanding Series 2013A Subordinated Bonds, and (b) pay issuance costs of the Series 2019D Subordinate Bonds, (ii) designated the Series 2019D Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2019D Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Seventh Supplemental Indenture of Trust, dated April 8, 2020 (the “**Twenty-Seventh Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) entered into the 2020 Term Loan Agreement in connection with the Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022A (the “**Series 2022A Subordinate Lien Refunding Bonds**”), (ii) pursuant to the 2020 Term Loan Agreement intends to issue its Series 2022A Subordinate Lien Refunding Bonds in the aggregate principal amount of \$294,305,000 in July 2022 to (a)(I) refund all of its outstanding Series 2012A Subordinate Bonds and Series 2012C Subordinate Bonds; and (II) pay certain costs of issuance, (iii) designated the Series 2022A Subordinate Lien Refunding Bonds as Subordinate Debt for purposes of the Indenture, and (iv) secured the Series 2022A Subordinate Lien Refunding Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future;

WHEREAS, pursuant to the Twenty-Eighth Supplemental Indenture of Trust, dated as of March 5, 2021 (the “**Twenty-Eighth Supplemental Indenture**”) between the Authority and the Trustee, the Authority entered into a revised Master Letter of Credit Agreement with TD Bank, N.A. to provide letters of credit for the benefit of the Authority’s Rolling Owner Controlled Insurance Program, in an aggregate maximum amount at any one time outstanding of \$25,000,000 and secured the Reimbursement Obligations (as defined in the Twenty-Eighth Supplemental Indenture) by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Ninth Supplemental Indenture of Trust, dated as of March 12, 2021 between the Authority and the Trustee, as amended by the First Amendment to the Twenty-Ninth Supplemental Indenture of Trust dated September 17, 2021 between the Authority and the Trustee (together, the “**Twenty-Ninth Supplemental Indenture**”), the Authority (i) entered into a 2021 WIFIA Loan Agreement in connection with the Series 2021 Senior Lien Bonds; (ii) issued its Public Utility Senior Lien Revenue Bonds, Series 2021 Senior Lien Bonds (the “**Series 2021 Senior Lien Bonds**”) in the aggregate principal amount of \$156,367,104 to (1) finance certain Costs of the System (specifically, the costs of the 2021 WIFIA Project as defined therein), and (2) pay issuance costs of the Series 2021 Senior Lien Bond, (iii) designate the Series 2021 Senior Lien Bond as Senior Debt for purposes of the Indenture, and (iv) secure the Series 2021 Senior Lien Bond 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 Authority now intends to: (i)(a) issue Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) in the aggregate principal amount of \$ _____ (the “**Series 2022B Subordinate Bonds**”) to (1) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (2) pay issuance costs of the Series 2022B Subordinate Bonds, (b) designate the Series 2022B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (c) secure the Series 2022B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, (ii)(a) issue the Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1 in an aggregate principal amount of \$ _____ (the “**Series 2022C-1 Subordinate Bonds**”) to (1) finance certain Costs of the System, (2) refund a portion of the outstanding subordinate commercial paper notes, (3) purchase the Purchased Refunded Bonds and (4) pay issuance costs of the Series 2022C Subordinate Bonds and (b) designate the Series 2022C-1 Subordinate Bonds as Subordinate Debt for purposes of the Indenture, (iii)(a) issue the Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 in an aggregate principal amount of \$ _____ (the “**Series 2022C-2 Subordinate Bonds**”, together with the Series 2022C-1 Subordinate Bonds, the “**Series 2022C Subordinate Bonds**” and together with the Series 2022C-1 Subordinate Bonds and the Series 2022B Subordinate Bonds, the “**Series 2022B/C Subordinate Bonds**”) to replace the Exchanged Refunded Bonds and (b) designate the Series 2022C-2 Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iv) secure the Series 2022C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

NOW THEREFORE, in consideration of the premises and the mutual covenants and agreements hereinafter contained, the parties hereto agree, as follows:

ARTICLE I
THIRTIETH SUPPLEMENTAL INDENTURE

Section 101. Authorization of Thirtieth Supplemental Indenture.

This Thirtieth Supplemental Indenture is authorized and executed by the Authority and delivered to the Trustee pursuant to and in accordance with Articles III and X of the Master Indenture. All terms, covenants, conditions and agreements of the Indenture shall apply with full force and effect to the Series 2022B/C Subordinate Bonds as Subordinate Debt and to the Holders thereof as Holders of Subordinate Debt, except as otherwise provided in this Thirtieth Supplemental Indenture.

Section 102. Definitions.

Except as otherwise defined in this Thirtieth Supplemental Indenture, capitalized words and terms defined in the Master Indenture as amended by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture and the Twenty-Ninth Supplemental Indenture, are used in this Thirtieth Supplemental Indenture with the meanings assigned to them therein. In addition, the following words as used in this Thirtieth Supplemental Indenture have the following meanings unless the context or use clearly indicates another or different intent or meaning:

“Book-entry form” or “book-entry system” means a form or system under which the physical Series 2022B/C Subordinate Bond certificates in fully registered form are issued only to a Depository or its nominee as Holder, with the certificated Series 2022B/C Subordinate Bonds held by and “immobilized” in the custody of the Depository, and the book-entry system, maintained by and the responsibility of the Depository and not maintained by or the responsibility of the Authority or the Trustee, is the record that identifies, and records the transfer of the interests of, the owners of beneficial, book-entry interests in the Series 2022B/C Subordinate Bonds.

“Depository” means any securities depository that is a clearing agency under federal law operating and maintaining, with its participants or otherwise, a book-entry system to record ownership of book-entry interests in Series 2022B/C Subordinate Bonds, and to effect transfers of book-entry interests in Series 2022B/C Subordinate Bonds, and includes and means initially The Depository Trust Company (a limited purpose trust company) (“DTC”), New York, New York.

“Exchanged Refunded Bonds” means that portion of the Refunded Bonds that are being exchanged for Subordinate Series 2022C-2 Bonds pursuant to the Exchange Offer Materials.

“Interest Payment Dates” for the Series 2022B/C Subordinate Bonds means each April 1 and October 1 commencing October 1, 2022, and thereafter during the time the Series 2022B/C Subordinate Bonds are outstanding.

“Purchased Refunded Bonds” means that portion of the Refunded Bonds tendered by the holders for purchase thereof pursuant to the Exchange Offer Materials.

“Refunded Bonds” means that portion of the Authority’s [_____ (_____) Series _____ Subordinate Bonds] set forth on Exhibit B hereto.

“Refunded Bonds Trustee” means Computershare Trust Company, N.A., a national banking association.

“Series 2022B Construction Account” means the Series 2022B Construction Account established by this Thirtieth Supplemental Indenture in the Construction Fund.

“Series 2022B Costs of Issuance Subaccount” means the Series 2022B Costs of Issuance Subaccount established by this Thirtieth Supplemental Indenture in the Series 2022B Construction Account of the Construction Fund.

“Series 2022C-1 Construction Account” means the Series 2022C-1 Construction Account established by this Thirtieth Supplemental Indenture in the Construction Fund.

“Series 2022C Costs of Issuance Subaccount” means the Series 2022C Costs of Issuance Subaccount established by this Thirtieth Supplemental Indenture in the Series 2022C-1 Construction Account of the Construction Fund.

[“Series 2022C-1 Tender Purchase Account” means the Series 2022C Tender Purchase Account established by this Thirtieth Supplemental Indenture in the Construction Fund.]

“Series 2022B/C Rebate Fund” means the Series 2022B/C Rebate Fund established by this Thirtieth Supplemental Indenture.

“Series 2022B/C Resolution” means Resolution No. _____, adopted by the Authority’s Board of Directors on _____, authorizing the Series 2022B/C Subordinate Bonds.

“Series 2022B/C Subordinate Bond Event of Default” means any of the events defined as such in Section 703 of this Thirtieth Supplemental Indenture.

“Series 2022B/C Subordinate Bondholder” or “holder of Series 2022B/C Subordinate Bonds” means the registered owner of a Series 2022B/C Subordinate Bond.

“Series 2022B/C Subordinate Bonds Interest Subaccount” means the Series 2022B/C Subordinate Bonds Interest Subaccount established by this Thirtieth Supplemental Indenture in the Interest Account in the Bond Fund.

“Series 2022B/C Subordinate Bonds Principal Subaccount” means the Series 2022B/C Subordinate Bonds Principal Subaccount established by this Thirtieth Supplemental Indenture in the Principal Account in the Bond Fund.

“Series 2022B/C Subordinate Debt Service Reserve Requirement” means zero.

“Tender/Exchange Offer” means the Tender/Exchange Offer by the Authority to the holders of the Refunded Bonds under which such holders may (1) exchange their Refunded Bonds for Series 2022C-2 Subordinate Bonds as set forth in the Tender/Exchange Offer Materials; and/or (2) tender for purchase their Refunded Bonds as set forth in the Exchange/Tender Offer Materials.

“Tender/Exchange Offer Materials” means the [Invitation to Tender or Exchange Bonds, Notice of Acceptance, Notice of Expiration – Results]

“Tender/Exchange Agent” means [_____], serving as the tender agent for the Purchased Refunded Bonds and the exchange agent for the Exchanged Refunded Bonds.”

“Thirtieth Supplemental Indenture” means this Thirtieth Supplemental Indenture of Trust, dated [_____ __, 2022], between the Authority and the Trustee, which supplements and amends the Master Indenture, as previously supplemented and amended by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture and the Twenty-Ninth Supplemental Indenture.

Section 103. Reference to Articles and Sections.

Unless otherwise indicated, all references herein to particular articles or sections are references to articles or sections of this Thirtieth Supplemental Indenture.

**ARTICLE II
AUTHORIZATION, DETAILS AND FORM
OF SERIES 2022B/C SUBORDINATE BONDS**

Section 201. Authorization of Series 2022B/C Subordinate Bonds.

Pursuant to Article III of the Master Indenture and, specifically, Section 305 thereof, and the Series 2022B/C Resolution, the Authority is authorized to issue:

(i) Series 2022B Subordinate Bonds in the aggregate principal amount of \$_____, for the purpose of (a) financing Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (b) paying issuance costs of the Series 2022B Subordinate Bonds. The Series 2022B Subordinate Bonds shall be issued as Subordinate Debt pursuant to the Indenture;

(ii) Series 2022C-1 Subordinate Bonds in the aggregate principal amount of \$_____, for the purpose of (a) financing Costs of the System, (b) refunding a portion of the outstanding subordinate commercial paper notes, (c) purchasing the Purchased Refunded Bonds and (d) paying issuance costs of the Series 2022C Subordinate Bonds. The Series 2022C-1 Subordinate Bonds shall be issued as Subordinate Debt pursuant to the Indenture; and

(iii) Series 2022C-2 Subordinate Bonds in the aggregate principal amount of \$_____, to replace the Exchanged Refunded Bonds. The Series 2022C-2 Subordinate Bonds shall be issued as Subordinate Debt pursuant to the Indenture.

Section 202. Details of Series 2022B/C Subordinate Bonds.

The Series 2022B Subordinate Bonds shall be designated “Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds)”, shall be dated [_____, 2022], shall be issuable only as fully registered bonds in denominations of \$5,000 and multiples thereof, shall be numbered RB-1 upward and shall bear interest at rates, payable semiannually on the Interest Payment Dates, until their final payment or maturity, and shall mature on October 1 in years and amounts, as follows:

Due (Oct. 1)	Principal Amount	Interest Rate
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The Series 2022C-1 Subordinate Bonds shall be designated “Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1”, shall be dated [_____, 2022], shall be issuable only as fully registered bonds in denominations of \$5,000 and multiples thereof, shall be numbered RC1-1 upward and shall bear interest at rates, payable semiannually on the Interest Payment Dates, until their final payment or maturity, and shall mature on October 1 in years and amounts, as follows:

Due (Oct. 1)	Principal Amount	Interest Rate
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The Series 2022C-2 Subordinate Bonds shall be designated “Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2”, shall be dated [_____, 2022], shall be issuable only as fully registered bonds in denominations of \$[1,000] and multiples thereof, shall be numbered RC2-1 upward and shall bear interest at rates, payable semiannually on the Interest Payment Dates, until their final payment or maturity, and shall mature on October 1 in years and amounts, as follows:

Due (Oct. 1)	Principal Amount	Interest Rate
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Each Series 2022B/C Subordinate Bond shall bear interest: (a) from its date, if such Series 2022B/C Subordinate Bond is authenticated prior to the first Interest Payment Date, or (b) otherwise from the Interest Payment Date that is, or immediately precedes, the date on which such Series 2022B/C Subordinate Bond is authenticated; provided, however, that if at the time of authentication of any Series 2022B/C Subordinate Bond payment of interest is in default, such Series 2022B/C Subordinate Bond shall bear interest from the date to which interest has been paid. The interest payable on the Series 2022B/C Subordinate Bonds will be computed on the basis of a 360-day year of twelve 30-day months.

Principal of and premium, if any, on the Series 2022B/C Subordinate Bonds shall be payable to the registered owners thereof upon the surrender of the applicable Series 2022B/C Subordinate Bonds at the designated office of the Trustee. Interest on the Series 2022B/C Subordinate Bonds shall be payable by check or draft mailed to the registered owners at their addresses as they appear on the fifteenth day of the month preceding the Interest Payment Date on the registration books kept by the Trustee; provided, however, if the Series 2022B/C Subordinate Bonds are registered in the name of a Depository or its nominee as registered owner or at the option of a registered owner of at least \$1,000,000 of Series 2022B/C Subordinate Bonds, payment shall be made by wire transfer to an account within the United States pursuant to the wire instructions received by the Trustee with respect to each such payment from such registered owner. Principal, premium, if any, and interest shall be payable in lawful money of the United States of America.

Section 203. Form of Bonds.

The Series 2022B/C Subordinate Bonds shall be in substantially the forms set forth in **Exhibits A-1, A-2 and A-3**, with such appropriate variations, omissions and insertions as are permitted or required by the Indenture.

Section 204. Depository Provisions.

The Series 2022B/C Subordinate Bonds shall initially be issued to a Depository for holding in a book-entry system. Those Series 2022B/C Subordinate Bonds shall be registered in the name of the Depository or its nominee, as registered owner, and immobilized in the custody of the Depository or the Trustee on behalf of the Depository; and shall not be transferable or exchangeable, except for transfer to another Depository or to another nominee of a Depository, without further action by the Authority.

If any Depository determines not to continue to act as a Depository for the Series 2022B/C Subordinate Bonds for holding in a book-entry system or the Authority determines to remove the Series 2022B/C Subordinate Bonds from a Depository, the Authority may attempt to have established a securities depository/book-entry system relationship with another qualified Depository. If the Authority does not or is unable to do so, the Authority, after making provision for notification of the owners of book-entry interests by appropriate notice to the then Depository and any other arrangements it deems necessary, shall permit withdrawal of the Series 2022B/C Subordinate Bonds from the Depository, and shall execute and direct the Trustee to authenticate and deliver Series 2022B/C Subordinate Bond certificates, in fully registered form, to the assigns of the Depository or its nominee (if such Series 2022B/C Subordinate Bonds were held by a nominee), all at the cost and expense (including costs of printing or otherwise preparing and delivering replacement Series 2022B/C Subordinate Bonds), if the event is not the result of Authority action or inaction, of those persons requesting that authentication and delivery. Series 2022B/C Subordinate Bond certificates authenticated and delivered pursuant to this paragraph shall be in authorized denominations. In the event that Series 2022B/C Subordinate Bonds shall cease to be in book-entry form, then the Authority or the Depository shall provide to the Trustee the name, address of record and taxpayer identification number of each registered holder thereof. The Trustee may rely on such information without any investigation.

If the Series 2022B/C Subordinate Bonds are withdrawn from a Depository and printed bond certificates in fully registered form are or are to be authenticated and delivered pursuant to this Section, and if, in the opinion of Bond Counsel addressed to the Trustee, the delivery of coupon bonds payable to bearer would not result in the interest on any of the Series 2022B/C Subordinate Bonds then outstanding becoming includable in gross income for federal income tax purposes, the Authority, without the consent of or notice to any of the holders of the Series 2022B/C Subordinate Bonds, may authorize the exchange of Series 2022B/C Subordinate Bond certificates in fully registered form or Series 2022B/C Subordinate Bonds under a book-entry system for coupon bonds payable to bearer, in an aggregate principal amount not exceeding the then unmatured and unredeemed principal amount of the Series 2022B/C Subordinate Bonds, bearing interest at the same rate and maturing on the same date, with coupons attached representing all unpaid interest due or to become due thereon. Such certificated Series 2022B/C Subordinate Bonds will be registrable, transferable and exchangeable as set forth in Section 204 and Section 205 of the Master Indenture.

So long as a Depository holds the Series 2022B/C Subordinate Bonds in a book-entry system (i) it or its nominee shall be the registered owner of the Series 2022B/C Subordinate Bonds, (ii) notwithstanding anything to the contrary in this Thirtieth Supplemental Indenture, determinations of persons entitled to payment of principal, premium, if any, and interest, transfers

of ownership and exchanges and receipt of notices shall be the responsibility of the Depository and shall be effected pursuant to rules and procedures established by such Depository, (iii) the Authority and the Trustee shall not be responsible or liable for maintaining, supervising or reviewing the records maintained by the Depository, its participants or persons acting through such participants, and (iv) references in this Thirtieth Supplemental Indenture to registered owners of the Series 2022B/C Subordinate Bonds shall mean such Depository or its nominee and shall not mean the beneficial owners of the Series 2022B/C Subordinate Bonds.

Section 205. Delivery of Series 2022B/C Subordinate Bonds.

The Trustee shall authenticate and deliver the Series 2022B/C Subordinate Bonds when there have been filed with or delivered to it the following items:

- (i) An original executed counterpart of this Thirtieth Supplemental Indenture;
- (ii) A certified copy of applicable resolution(s) of the Board of Directors of the Authority and related Certificate of Award: (a) authorizing the execution and delivery of the Thirtieth Supplemental Indenture, and (b) authorizing the issuance, sale, award, execution and delivery of the Series 2022B/C Subordinate Bonds.
- (iii) A certificate signed by an Authorized Representative of the Authority and dated the date of such issuance, to the effect that:
 - (a) Either: (1) upon and immediately following such issuance, no Event of Default has occurred which has not been cured or waived, and no event or condition exists which, with the giving of notice or lapse of time or both, would become an Event of Default, or (2) if any such event or condition is happening or existing, specifying such event or condition, stating that the Authority will act with due diligence to correct such event or condition after the issuance of the Series 2022B/C Subordinate Bonds, and describing in reasonable detail the actions to be taken by the Authority toward such correction; and
 - (b) All required approvals, limitations, conditions and provisions precedent to the issuance of the Series 2022B/C Subordinate Bonds have been obtained, observed, met and satisfied.
- (iv) An Opinion or Opinions of Counsel, subject to customary exceptions and qualifications, substantially to the effect that this Thirtieth Supplemental Indenture has been duly authorized, executed and delivered to the Trustee, is a valid, binding and enforceable obligation of the Authority, and complies in all respects with the requirements of the Indenture.
- (v) An opinion or opinions of Bond Counsel, subject to customary exceptions and qualifications, substantially to the effect that the issuance of the Series 2022B/C Subordinate Bonds has been duly authorized, that the Series 2022B/C Subordinate Bonds are valid and binding limited obligations of the Authority, and that the interest on the Series 2022B/C Subordinate Bonds is excludable from gross income for purposes of Federal income taxation and for purposes of District of Columbia income taxation.

(vi) A certificate of an Authorized Representative of the Authority, stating that rates, fees and charges are in effect or scheduled to go into effect to meet the Rate Covenant immediately after the issuance of the Series 2022B/C Subordinate Bonds.

(vii) With respect only to the Series 2022C Subordinate Bonds, the Tender/Exchange Offer Materials.

(viii) A request and authorization of the Authority, signed by an Authorized Representative of the Authority, to the Trustee to authenticate and deliver such Bonds to the purchaser upon payment to the Trustee in immediately available funds for the account of the Authority of a specified sum plus accrued interest to the date of delivery.

The Series 2022C-2 Subordinate Bonds shall be authenticated and delivered by the Trustee to or upon the direction of the Tender/Exchange Agent contemporaneously with the Series 2022B Subordinate Bonds and Series 2022C-1 Subordinate Bonds.

ARTICLE III REDEMPTION OF SERIES 2022B/C SUBORDINATE BONDS

Section 301. Redemption Dates and Prices.

The Series 2022B/C Subordinate Bonds may not be called for redemption by the Authority except as provided below:

(i) Optional Redemption. (a) The Series 2022B Subordinate Bonds maturing on or after _____ 1, 20__, are subject to redemption prior to maturity at the option of the Authority 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.

(b) The Series 2022C-1 Subordinate Bonds maturing on or after _____ 1, 20__, are subject to redemption prior to maturity at the option of the Authority on and 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

(c) The Series 2022C-2 Subordinate Bonds maturing on or after _____ 1, 20__, are subject to redemption prior to maturity at the option of the Authority on and 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

(ii) Mandatory Redemption. (a) The Series 2022B Subordinate Bonds bearing interest at a rate of _____%, and maturing on _____ 1, 20__ (the “_____ Term Series 2022B Subordinate Bonds”), are required to be redeemed prior to maturity on October 1 in years and amounts upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date, as follows:

Year	Amount
------	--------

† Final Maturity

(b) The Series 2022C-1 Subordinate Bonds each bearing interest at a rate of ____% and maturing on _____ 1, 20__ (the “____ Term Series 2022C-1 Subordinate Bonds”) and _____ 1, 20__ (the “____ Term Series 2022C-1 Subordinate Bonds”), respectively, are required to be redeemed prior to maturity on October 1 in years and amounts upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date, as follows:

The ____ Term Series 2022C-1 Subordinate Bonds are subject to mandatory sinking fund redemption on each October 1 as set forth below:

Year	Amount
------	--------

† Final Maturity

The ____ Term Series 2022C-1 Subordinate Bonds are subject to mandatory sinking fund redemption on each October 1 as set forth below:

Year	Amount
------	--------

† Final Maturity

(b) The Series 2022C-2 Subordinate Bonds each bearing interest at a rate of ____% and maturing on _____ 1, 20__ (the “____ Term Series 2022C-2 Subordinate Bonds”) and _____ 1, 20__ (the “____ Term Series 2022C-2 Subordinate Bonds”), respectively, are required to be redeemed prior to maturity on October 1 in years and amounts upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date, as follows:

The ____ Term Series 2022C-2 Subordinate Bonds are subject to mandatory sinking fund redemption on each October 1 as set forth below:

Year	Amount
------	--------

† Final Maturity

The Trustee shall provide for a mandatory redemption of the Term Series 2022B/C Subordinate Bonds in accordance with the schedules set forth above; provided, however, that on or before the 70th day next preceding any such mandatory redemption date, the Authority may:

(i) deliver to the Trustee for cancellation Term Series 2022B/C Subordinate Bonds of the maturity required to be redeemed on such mandatory redemption date in any aggregate principal amount desired; or

(ii) instruct the Trustee in writing to apply a credit against the Authority’s next mandatory redemption obligation for any such Term Series 2022B/C Subordinate Bonds that previously have been redeemed (other than through mandatory redemption) and canceled but not theretofore applied as a credit against any mandatory redemption obligation.

Upon the occurrence of any of the events described in clauses (i) or (ii) of the preceding sentence, the Trustee shall credit against the Authority’s mandatory redemption obligation on the next mandatory redemption date the amount of such Term Series 2022B/C Subordinate Bonds so delivered or previously redeemed. Any principal amount of such Term Series 2022B/C Subordinate Bonds in excess of the principal amount required to be redeemed on such mandatory redemption date shall be similarly credited in an amount equal to the principal of such Term Series 2022B/C Subordinate Bonds so purchased towards the sinking fund installments for the Term Series 2022B/C Subordinate Bonds of such maturity on a pro rata basis in accordance with a certificate of an Authorized Representative of the Authority, which will direct the reduction of a ratable portion of each annual mandatory sinking fund installment requirement in accordance with the procedures set forth below. Within seven days of receipt of such Term Series 2022B/C Subordinate Bonds or instructions to apply as a credit, any amounts remaining in the Sinking Fund Account in excess of the amount required to fulfill the remaining required mandatory redemption obligation

on the next mandatory redemption date shall be used in such manner as determined at the written direction of the Authority.

The particular maturities of the Series 2022B/C Subordinate Bonds to be redeemed at the option of the Authority will be determined by the Authority in its sole discretion.

If fewer than all of the Series 2022B/C Subordinate Bonds are called for redemption, they shall be called in such order of maturity as the Authority may determine and direct the Trustee in writing. If less than all of the Series 2022B/C Subordinate Bonds of any maturity date is called for redemption, the Series 2022B/C Subordinate Bonds to be redeemed shall be selected by the Depository pursuant to its rules and procedures or, if the book-entry system is discontinued, shall be selected by the Trustee by lot in such manner as the Trustee in its discretion may determine. The portion of any Series 2022B/C Subordinate Bond to be redeemed shall be in the principal amount of \$5,000 or some integral multiple thereof. In selecting Series 2022B/C Subordinate Bonds for redemption, each Series 2022B/C Subordinate Bond shall be considered as representing that number of Bonds which is obtained by dividing the principal amount of such Series 2022B/C Subordinate Bond by \$5,000. If a portion of a Series 2022B/C Subordinate Bond shall be called for redemption, a new Series 2022B/C Subordinate Bond in principal amount equal to the unredeemed portion thereof shall be issued to the registered owner upon the surrender thereof.

Section 302. Notice of Redemption.

Notice of redemption of Series 2022B/C Subordinate Bonds shall be given in the manner set forth in Section 402 of the Master Indenture; provided, however, that notices of redemption of Series 2022B/C Subordinate Bonds sent pursuant to Section 402 of the Master Indenture shall either (i) explicitly state that the proposed redemption is conditioned on 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 2022B/C Subordinate Bonds to be redeemed, or (ii) be sent only if sufficient money to pay the full redemption price of the Series 2022B/C Subordinate Bonds to be redeemed is on deposit in the applicable fund or account. Notwithstanding the foregoing and the otherwise applicable requirement of Section 402 of the Master Indenture that the Trustee send notice of a call for redemption not fewer than 30 days prior to the redemption date, the Trustee may send any notice of redemption of Series 2022B/C Subordinate Bonds not fewer than 20 days prior to the redemption date or such shorter period of time as may be acceptable to the Depository while the Series 2022B/C Subordinate Bonds are in book-entry form and registered with a Depository, initially DTC.

ARTICLE IV

APPLICATION OF PROCEEDS OF SERIES 2022B/C SUBORDINATE BONDS

Section 401. Application of Proceeds of Series 2022B/C Subordinate Bonds; Application of Related Amounts.

The net proceeds of the Series 2022B/C Subordinate Bonds in the amount of \$_____, which represents the par amount of the Series 2022B/C Subordinate Bonds (\$_____), minus the underwriters' discount (\$_____), and plus original

issue premium (\$_____) by the Original Purchasers, at the request and direction of the Authority shall be applied as follows:

(i) \$_____ from the net proceeds of the Series 2022B Subordinate Bonds shall be deposited in the Series 2022B Construction Account.

(ii) \$_____ from the net proceeds of the Series 2022C-1 Subordinate Bonds shall be deposited in the Series 2022C-1 Construction Account to pay certain Costs of the System.

(iii) \$_____ from the net proceeds of the Series 2022C-1 Subordinate Bonds shall be deposited in [the applicable interest and principal accounts created and existing pursuant to the Eleventh Supplemental Indenture to refund certain subordinate commercial paper notes].

(iv) \$_____ from the net proceeds of the Series 2022C-1 Subordinate Bonds shall be deposited in the Series 2022C-1 [Tender Purchase] Account [together with \$_____ from the [Series 2014C Subordinate Bonds] Interest Subaccount in the Subordinate Bond Fund].

(v) \$_____ from the net proceeds of the Series 2022B Subordinate Bonds shall be deposited in the Series 2022B Costs of Issuance Subaccount of the Series 2022B Construction Account of the Construction Fund and used to pay costs of issuance of the Series 2022B Subordinate Bonds.

(vi) \$_____ from the net proceeds of the Series 2022C-1 Subordinate Bonds shall be deposited in the Series 2022C Costs of Issuance Subaccount of the Series 2022C-1 Construction Account of the Construction Fund and used to pay costs of issuance of the Series 2022C Subordinate Bonds.

ARTICLE V FUNDS AND ACCOUNTS

Section 501. Series 2022B Construction Account and Series 2022C-1 Construction Account.

(i) In the Construction Fund, there shall be established a Series 2022B Construction Account and, within that Account, a Series 2022B Costs of Issuance Subaccount. The portion of the proceeds of the Series 2022B Subordinate Bonds specified in Section 401(v) shall be deposited in the Series 2022B Costs of Issuance Subaccount and used to pay costs of issuance related to the Series 2022B Subordinate Bonds. When all costs of issuance have been paid or moneys have been reserved to pay all remaining unpaid costs of issuance, the balance of any Series 2022B Subordinate Bond proceeds remaining in excess of the amount to be reserved for payment of unpaid costs of issuance shall, as directed by the Authority, either (i) be deposited in the Series 2022B Construction Account of the Construction Fund and used to pay Costs of the System, or (ii) be deposited in the Bond Fund to be used solely to pay principal of and interest on the Series 2022B Subordinate Bonds, in either case to the extent approved by Bond Counsel.

(ii) In the Construction Fund, there shall be established a Series 2022C-1 Construction Account and, within that Account, a Series 2022C Costs of Issuance Subaccount. The portion of the proceeds of the Series 2022C-1 Subordinate Bonds specified in Section 401(vi) shall be deposited in the Series 2022C Costs of Issuance Subaccount and used to pay costs of issuance related to the Series 2022C Subordinate Bonds. When all costs of issuance have been paid or moneys have been reserved to pay all remaining unpaid costs of issuance, the balance of any Series 2022C Subordinate Bond proceeds remaining in excess of the amount to be reserved for payment of unpaid costs of issuance shall, as directed by the Authority, either (i) be deposited in the Series 2022C-1 Construction Account of the Construction Fund and used to pay Costs of the System, or (ii) be deposited in the Bond Fund to be used solely to pay principal of and interest on the Series 2022C Subordinate Bonds, in either case to the extent approved by Bond Counsel.

Section 502. Series 2022B/C Subordinate Bonds Subaccounts in the Interest Account and Principal Account.

(i) Within the Interest Account there shall be established a “Series 2022B/C Subordinate Bonds Interest Subaccount.” Within the Principal Account there shall be established a “Series 2022B/C Subordinate Bonds Principal Subaccount.”

(ii) In accordance with Section 604(e) of the Master Indenture, Net Revenues shall be deposited in the Series 2022B/C Subordinate Bond Interest Subaccount on or prior to the last Business Day of each of the six months prior to any month in which an Interest Payment Date occurs, in an amount equal to one-sixth (1/6) of the interest due and payable on the Series 2022B/C Subordinate Bonds on such Interest Payment Date.

(iii) In accordance with Section 604(e) of the Master Indenture, Net Revenues shall be deposited in the Series 2022B/C Subordinate Bonds Principal Subaccount on or prior to the last Business Day of each of the twelve months prior to any month in which principal of Series 2022B/C Subordinate Bonds is payable on their stated maturity date or pursuant to mandatory redemption requirements, in an amount equal to one-twelfth (1/12) of the principal amount scheduled to be due and payable on the Series 2022B/C Subordinate Bonds in such month.

Section 503. Series 2022B/C Rebate Fund. There is hereby established the Series 2022B/C Rebate Fund which shall be used in accordance with (i) Article VIII hereof, and (ii) the Authority’s covenants in the Tax Compliance Certificate of the Issuer, executed by the Authority, dated as of [_____, 2022].

**ARTICLE VI
SECURITY FOR SERIES 2022B/C SUBORDINATE BONDS**

Section 601. Security for Series 2022B/C Subordinate Bonds.

The Series 2022B/C Subordinate Bonds shall be secured as Subordinate Debt under the Indenture, including, without limitation, by a pledge of: (i) Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures Subordinate Debt, including, without limitation, any other Subordinate Debt that the Authority may issue in the future, without preference, priority or distinction of any Series 2022B/C Subordinate Bond over any other Series 2022B/C Subordinate Bond or of any Subordinate Debt

over any other Subordinate Debt, as provided in the Indenture; and (ii) the moneys and Permitted Investments in the Subordinate Bond Fund on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, any other Subordinate Debt that the Authority may issue in the future, without preference, priority or distinction of any Series 2022B/C Subordinate Bond over any other Series 2022B/C Subordinate Bond or of any Subordinate Debt over any other Subordinate Debt, as provided in the Indenture.

Pursuant to the WASA Act (as defined in the Master Indenture), the Authority hereby includes in this Thirtieth Supplemental Indenture the pledge of the District to the Authority and any holders of its bonds that, except as provided in the WASA 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 the 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.

ARTICLE VII DEFAULTS AND REMEDIES

Section 701. Application of Article IX and Other Remedies Provisions of the Master Indenture.

The Series 2022B/C Subordinate Bonds do not constitute “Bonds” under the Master Indenture. Accordingly, the provisions of Article IX of the Master Indenture that confer certain rights upon the Holders of Bonds or a specified percentage thereof do not apply to the Series 2022B/C Subordinate Bonds or to the Series 2022B/C Subordinate Bondholders. Pursuant to Section 305 of the Master Indenture, the Series 2022B/C Subordinate Bonds, as Subordinate Debt, may not be accelerated if any Senior Debt is outstanding.

Section 702. Rights of Series 2022B/C Subordinate Bondholders Upon Occurrence of Events of Default.

In addition to and in furtherance and implementation of the rights that Series 2022B/C Subordinate Bondholders have under the penultimate paragraph of Section 906 of the Master Indenture, Sections 703 through 711, inclusive, of this Thirtieth Supplemental Indenture shall apply to the Series 2022B/C Subordinate Bonds.

Section 703. Events of Default.

Each of the following events shall be a Series 2022B/C Subordinate Bond Event of Default:

- (i) Default in the due and punctual payment of the principal of or premium, if any, on any Series 2022B/C Subordinate Bond (whether at maturity or call for redemption);
- (ii) Default in the due and punctual payment of the interest on any Series 2022B/C Subordinate Bond;

(iii) Failure of the Authority to make the deposits required by subsection (e) or subsection (f) of Section 604 of the Master Indenture at the time and in the amount required from Net Revenues available for such deposit under the Indenture; or

(iv) Failure of the Trustee to apply moneys in accordance with the penultimate paragraph of Section 906 of the Master Indenture.

Section 704. Remedies of Series 2022B/C Subordinate Bondholders.

Upon the occurrence and continuation of a Series 2022B/C Subordinate Bond Event of Default, the Trustee may, and if requested by the holders of not less than 25% in aggregate principal amount of outstanding Series 2022B/C Subordinate Bonds and if indemnified to its reasonable satisfaction, shall proceed to protect and enforce their rights by mandamus or other suit, action or proceeding at law or in equity, including an action for specific performance.

No remedy conferred by this Indenture upon or reserved to the Trustee and Series 2022B/C Subordinate Bondholders is intended to be exclusive of any other remedy, but each such remedy shall be cumulative and shall be in addition to any other remedy given to the Trustee and Series 2022B/C Subordinate Bondholders hereunder or now or hereafter existing at law, in equity or by statute.

No delay or omission to exercise any right or power accruing upon any default or Series 2022B/C Subordinate Bond Event of Default shall impair any such right or power or shall be construed to be a waiver of any such default or Series 2022B/C Subordinate Bond Event of Default or acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient.

No waiver of any default or Series 2022B/C Subordinate Bond Event of Default hereunder by the Trustee or Series 2022B/C Subordinate Bondholders shall extend to or shall affect any subsequent Series 2022B/C Subordinate Bond Event of Default or shall impair any rights or remedies consequent thereon.

Section 705. Right of Series 2022B/C Subordinate Bondholders to Direct Proceedings.

The holders of a majority in aggregate principal amount of Series 2022B/C Subordinate Bonds then outstanding shall have the right, at any time, by an instrument or instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all proceedings to be taken in connection with the enforcement of the terms and conditions of this Thirtieth Supplemental Indenture or any other proceedings hereunder; provided, however, that such direction shall not be otherwise than in accordance with the provisions of law and of the Indenture.

Section 706. Application of Moneys.

All moneys received by the Trustee pursuant to any right given or action taken under the provisions of this Article shall, after payment of the cost and expenses of the proceedings resulting in the collection of such moneys, the expenses, liabilities and advances incurred or reasonably

anticipated to be made by the Trustee, and its fees and the expenses of the Authority in carrying out this Thirtieth Supplemental Indenture, be deposited in the Series 2022B/C Subordinate Bonds Interest Subaccount or the Series 2022B/C Subordinate Bonds Principal Subaccount, as the case may be, and applied as follows and for no other purpose:

- (i) All such moneys shall be applied:

First - To the payment to the persons entitled thereto of all installments of interest then due on the Series 2022B/C Subordinate Bonds, in the order of the maturity of the installments of such interest and, if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Series 2022B/C Subordinate Bonds; and

Second - To the payment to the persons entitled thereto of the unpaid principal of and premium, if any, on any of the Series 2022B/C Subordinate Bonds which shall have become due (other than Series 2022B/C Subordinate Bonds called for redemption for the payment of which moneys are held pursuant to the provisions of the Indenture), in the order of their due dates, and, if the amount available shall not be sufficient to pay in full Series 2022B/C Subordinate Bonds due on any particular date, then to the payment of such principal and premium, if any, ratably, according to the amount of such principal due on such date, to the persons entitled thereto, without any discrimination or preference.

(ii) Whenever moneys are to be applied pursuant to the provisions of this Section, such moneys shall be applied at such times and from time to time as the Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Trustee shall apply such moneys, it shall fix the date (which shall be an Interest Payment Date unless it shall deem another date more suitable) on which such application is to be made and on such date interest shall cease to accrue on the amounts of principal to be paid. The Trustee shall give such notice as it may deem appropriate of the deposit with it of any such moneys and of the fixing of any such date.

Section 707. Remedies Vested in Trustee.

All rights of action (including the right to file proof of claims) under this Thirtieth Supplemental Indenture or under any of the Series 2022B/C Subordinate Bonds may be enforced by the Trustee without the possession of any of the Series 2022B/C Subordinate Bonds or the production thereof in any trial or other proceeding relating thereto and any such suit or proceeding instituted by the Trustee may be brought in its name as Trustee without the necessity of joining as plaintiffs or defendants any Series 2022B/C Subordinate Bondholders, and any recovery of judgment shall be for the equal benefit of the Series 2022B/C Subordinate Bondholders.

Section 708. Limitation on Suits.

Except to enforce the rights given under Sections 704 and 705 of this Thirtieth Supplemental Indenture, no Series 2022B/C Subordinate Bondholder shall have any right to

institute any action, suit or proceeding at law or in equity for the enforcement of the Indenture or for the execution of any trust thereof or any other remedy hereunder, unless: (i) a Series 2022B/C Subordinate Bond Event of Default has occurred and is continuing and the Holders of 25% in aggregate principal amount of Series 2022B/C Subordinate Bonds then outstanding have made written request to the Trustee and offered it reasonable opportunity either to proceed to exercise the powers hereinbefore granted or to institute such action, suit or proceeding in its own name, (ii) such requesting Series 2022B/C Subordinate Bondholders have offered to the Trustee indemnity as provided in Section 1101(l) of the Master Indenture, (iii) the Trustee has thereafter failed or refused to exercise the powers hereinbefore granted, or to institute such action, suit or proceeding in its own name, (iv) no direction inconsistent with such written request has been given to the Trustee by the holders of a majority in aggregate principal amount of Series 2022B/C Subordinate Bonds then outstanding, and (v) notice of such action, suit or proceeding is given to the Trustee; it being understood and intended that no one or more Series 2022B/C Subordinate Bondholders shall have any right in any manner whatsoever to affect, disturb or prejudice the Indenture by its or their action or to enforce any rights hereunder except in the manner herein provided, and that all proceedings at law or in equity shall be instituted and maintained in the manner herein provided and for the equal benefit of all Series 2022B/C Subordinate Bondholders then outstanding. The notification, request and offer of indemnity set forth above, at the option of the Trustee, shall be conditions precedent to the execution of the powers and trusts of this Thirtieth Supplemental Indenture and to any action or cause of action for the enforcement of this Thirtieth Supplemental Indenture or for any other remedy hereunder.

Section 709. Termination of Proceedings.

In case the Trustee shall have proceeded to enforce any right under this Thirtieth Supplemental Indenture and such proceedings shall have been discontinued or abandoned for any reason or shall have been determined adversely to the Trustee, then and in every such case the Authority and the Trustee shall be restored to their former positions and rights hereunder, and all rights, remedies and powers of the Trustee shall continue as if no such proceedings had been taken.

Section 710. Waivers of Events of Default.

Subject to the Indenture (including, without limitation, Section 1101 of the Master Indenture), the Trustee may in its discretion waive any Series 2022B/C Subordinate Bond Event of Default hereunder or any action taken pursuant to any Series 2022B/C Subordinate Bond Event of Default, and shall do so at the written request of the holders of: (i) a majority in aggregate principal amount of Series 2022B/C Subordinate Bonds then outstanding in respect of which default in the payment of principal and/or premium, if any, and/or interest exists, or (ii) a majority in aggregate principal amount of Series 2022B/C Subordinate Bonds then outstanding in the case of any other Series 2022B/C Subordinate Bond Event of Default; provided, however, that there shall not be waived without the written consent of all then Outstanding Series 2022B/C Subordinate Bondholders (a) any Series 2022B/C Subordinate Bond Event of Default in the payment of the principal of any Outstanding Series 2022B/C Subordinate Bonds (whether at maturity or by mandatory redemption), or (b) any default in the payment when due of the interest on any such Series 2022B/C Subordinate Bonds unless, prior to such waiver or rescission,

(1) there shall have been paid or provided for all arrears of interest with interest, to the extent permitted by law, at the rate borne by the Series 2022B/C Subordinate Bonds on overdue installments of interest, all arrears of principal and premium, if any, and all expenses of the Trustee in connection with such default, and

(2) in case of any such waiver or rescission or in the case of any discontinuance, abandonment or adverse determination of any proceeding taken by the Trustee on account of any such default, the Authority, the Trustee, and the Series 2022B/C Subordinate Bondholders shall be restored to their former positions and rights hereunder respectively.

No such waiver or rescission relating to the Series 2022B/C Subordinate Bonds shall extend to any subsequent or other default or impair any right consequent thereon.

Section 711. Non-Impairment of Authority's Obligation to Pay Principal, Premium and Interest.

Nothing in this Thirtieth Supplemental Indenture shall, however, affect or impair the obligation of the Authority to pay the principal of, premium, if any, and interest on each of the Series 2022B/C Subordinate Bonds to the respective Holders thereof at the time and place, from the source and in the manner specified in the Indenture.

**ARTICLE VIII
TAX COVENANTS**

Section 801. Tax Covenants – General.

(i) The Authority covenants that it will use, and will restrict the use and investment of, the proceeds of the Series 2022B/C Subordinate Bonds in such manner and to such extent as may be necessary so that (a) the Series 2022B/C Subordinate Bonds will not constitute private activity bonds, arbitrage bonds or hedge bonds under Sections 141, 148 or 149 of the Code, or be treated other than as bonds to which Section 103(a) of the Code applies, and (b) the interest on the Series 2022B/C Subordinate Bonds will not be treated as an item of tax preference under Section 57 of the Code.

(ii) The Authority further covenants that (a) it will take or cause to be taken such actions that may be required of it for the interest on the Series 2022B/C Subordinate Bonds to be and remain excluded from gross income for federal income tax purposes, (b) it will not take or authorize to be taken any actions that would adversely affect that exclusion, and (c) it, or persons acting for it, will, among other acts of compliance, (1) apply the proceeds of the Series 2022B/C Subordinate Bonds to the governmental purposes of the borrowing, (2) restrict the yield on investment property, (3) make timely and adequate payments to the federal government, including but not limited to the required payment of any Rebate Amounts under Section 148(f) of the Code, as further provided in Section 702 hereof, (4) maintain books and records and make calculations and reports, and (5) refrain from certain uses of those proceeds and, as applicable, of property financed with such proceeds, all in such manner and to the extent necessary to assure that exclusion of that interest under the Code.

(iii) The Authorized Representative of the Authority is hereby authorized (a) to make or effect any election, selection, designation, choice, consent, approval or waiver on behalf of the Authority with respect to the Series 2022B/C Subordinate Bonds as the Authority is permitted to make or give under the federal income tax laws, including, without limitation, any of the elections provided for or available under Section 148 of the Code, for the purpose of assuring, enhancing or protecting favorable tax treatment or status of the Series 2022B/C Subordinate Bonds or interest thereon or assisting compliance with requirements for that purpose, reducing the burden or expense of such compliance, reducing the rebate amount or payments of penalties, or making payments of special amounts in lieu of making computations to determine, or paying, excess earnings as rebate, or obviating those amounts or payments, as determined by the Authorized Representative of the Authority, which action shall be in writing and signed by the Authorized Representative of the Authority, (b) to take any and all other actions, make or obtain calculations, make payments, and make or give reports, covenants and certifications of and on behalf of the Authority, as may be appropriate to assure the exclusion of interest from gross income and the intended tax status of the Series 2022B/C Subordinate Bonds, and (c) to give one or more appropriate certificates, for inclusion in the transcript of proceedings for the Series 2022B/C Subordinate Bonds, setting forth the reasonable expectations of the Authority regarding the amount and use of all the proceeds of the Series 2022B/C Subordinate Bonds, the facts, circumstances and estimates on which they are based, and other facts and circumstances relevant to the tax treatment of the interest on and the tax status of the Series 2022B/C Subordinate Bonds.

Section 802. Calculation and Payment of Rebate.

(i) As used in this Section 802:

“Bond Year” means the annual period (or such shorter period from the date of issuance of the Series 2022B/C Subordinate Bonds) provided for the computation of the Rebate Amount for the Series 2022B/C Subordinate Bonds under Section 148(f) of the Code. The last day of a Bond Year shall be the close of business on the day preceding the anniversary of the issuance of the Series 2022B/C Subordinate Bonds unless the Authority selects another date on which to end a Bond Year in the manner permitted by the Code, and notifies the Trustee in writing of such selection.

“Computation Date” means:

(i) (a) the last day of each fifth Bond Year while the Series 2022B/C Subordinate Bonds are outstanding, and (b) the date on which the last Series 2022B/C Subordinate Bonds are retired, or

(ii) such other date or dates elected by the Authority as may be permitted under the Code for computation of the Rebate Amount.

“Rebate Amount” means, as of any Computation Date, the amount then payable (or payable within 60 days of such date) to the United States pursuant to Section 148(f) of the Code and the applicable Treasury Regulations (final or temporary) thereunder.

(ii) Promptly after each Computation Date, the Authority, or an independent public accounting firm or Bond Counsel engaged by or on behalf of the Authority, shall calculate the Rebate Amount, if any, as of that Computation Date.

(iii) Within 60 days after each Computation Date, and at any other time directed by the Authorized Representative of the Authority, the Authority shall pay to the United States in accordance with Section 148(f), from any lawfully available funds, an amount equal to 90% (or such greater percentage not in excess of 100% as the Authorized Representative of the Authority may determine to pay) of the Rebate Amount determined from the Delivery Date to the end of such fifth Bond Year (but less any portion of the Rebate Amount previously paid to the United States pursuant to this Section). Within 60 days after the payment in full of all outstanding Series 2022B/C Subordinate Bonds, the Authorized Representative of the Authority, on behalf of the Authority shall pay to the United States in accordance with Section 148(f), from any lawfully available funds, an amount equal to 100% of the Rebate Amount determined from the Delivery Date to the date of such payment in full of all outstanding Series 2022B/C Subordinate Bonds (but less any portion of the Rebate Amount previously paid to the United States pursuant to this Section 802(iii)).

(iv) The Authority shall keep or provide for the keeping of records of the computations made pursuant to this Section 802, payments made pursuant to this Section and all original source documents pertaining to the investment of gross proceeds and the expenditure of gross proceeds for at least six years after the maturity or retirement of the Series 2022B/C Subordinate Bonds.

(v) The Authority, in connection with investments of the proceeds of the Series 2022B/C Subordinate Bonds in nonpurpose investments, will not pay or agree to pay to a party other than the United States any portion of the Rebate Amount with respect to the Series 2022B/C Subordinate Bonds through a transaction or series of transactions that reduce the aggregate amount earned on all nonpurpose investments in which gross proceeds of the Series 2022B/C Subordinate Bonds are invested or that result in a smaller profit or a larger loss than would have resulted in an arm's length transaction in which yield on the Series 2022B/C Subordinate Bonds was not relevant to the Authority or the other party.

(vi) If the Authority and the Trustee receive a written opinion of Bond Counsel that such action would not adversely affect the exclusion from gross income for federal income tax purposes of interest on the Series 2022B/C Subordinate Bonds, the Authorized Representative of the Authority may, without the consent of or notice to any bondholders, adopt supplements to this Thirtieth Supplemental Indenture to the extent necessary or desirable to modify, supplement or replace this Section 802 consistent with the other covenants of the Authority in this Thirtieth Supplemental Indenture.

(vii) If at any time the Authority receives a written opinion of Bond Counsel that failure to comply with this Section 802 or any part of this Section 802 would not adversely affect the exclusion of interest on the Series 2022B/C Subordinate Bonds from gross income for federal

income tax purposes, the Authority may discontinue compliance with this Section 802 or part of this Section 802 to the extent set forth in that opinion.

ARTICLE IX MISCELLANEOUS

Section 901. Limitation of Rights.

With the exception of rights herein expressly conferred, nothing expressed or mentioned in or to be implied from this Thirtieth Supplemental Indenture or the Series 2022B/C Subordinate Bonds is intended or shall be construed to give to any person other than the parties hereto and the Series 2022B/C Subordinate Bondholders any legal or equitable right, remedy or claim under or in respect to this Thirtieth Supplemental Indenture or any covenants, conditions and agreements herein contained since this Thirtieth Supplemental Indenture and all of the covenants, conditions and agreements hereof are intended to be and are for the sole and exclusive benefit of the parties hereto and the Series 2022B/C Subordinate Bondholders as herein provided.

Section 902. Severability.

If any provision of this Thirtieth Supplemental Indenture shall be held invalid by any court of competent jurisdiction, such holding shall not invalidate any other provision hereof, and this Thirtieth Supplemental Indenture shall be construed and enforced as if such illegal provision had not been contained herein.

Section 903. Successors and Assigns.

This Thirtieth Supplemental Indenture shall be binding upon, inure to the benefit of and be enforceable by the parties and their respective successors and assigns.

Section 904. Limitations on Liability.

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 of Directors of the Authority or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board of Directors of the Authority nor any officer of the Authority executing the Series 2022B/C Subordinate Bonds shall be liable personally on the Series 2022B/C Subordinate Bonds or be subject to any personal liability or accountability by reason of the issuance thereof. No member of the Board of Directors of the Authority or officer, employee, agent or advisor of the Authority shall incur any personal liability with respect to any other action taken by him or her pursuant to this Thirtieth Supplemental Indenture or the Indenture or any other document authorized by the Indenture, provided such member, officer, employee, agent or advisor acts in good faith.

Section 905. Applicable Law.

This Thirtieth Supplemental Indenture shall be governed by the applicable laws of the District of Columbia.

Section 906. Counterparts.

This Thirtieth Supplemental Indenture may be executed in several counterparts, each of which shall be deemed an original and all of which together shall constitute but one and the same instrument.

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IN WITNESS WHEREOF, the Authority and the Trustee have caused this Thirtieth Supplemental Indenture to be executed in their respective corporate names as of the date first above written.

**DISTRICT OF COLUMBIA WATER
AND SEWER AUTHORITY**

By _____
Mathew T. Brown
Chief Financial Officer and Executive Vice
President, Finance and Procurement

**COMPUTERSHARE TRUST COMPANY, N.A.,
AS TRUSTEE**

By _____
Its _____

EXHIBIT A-1

SERIES 2022B SUBORDINATE BOND FORM

Unless this certificate is presented by an authorized representative of The Depository Trust Company, a New York corporation (“DTC”), to the Authority or its agent for registration of transfer, exchange, or payment, and any certificate is registered in the name of Cede & Co., or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), **ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL** inasmuch as the registered owner hereof, Cede & Co., has an interest herein.

REGISTERED NO.
RB-1

REGISTERED
\$ _____

UNITED STATES OF AMERICA

DISTRICT OF COLUMBIA

WATER AND SEWER AUTHORITY

**PUBLIC UTILITY SUBORDINATE LIEN REVENUE BOND
SERIES 2022B
(Green Bonds)**

INTEREST RATE	MATURITY DATE	DATED DATE	CUSIP
_____%	October 1, [____]	[_____, 2022]	254845[____]

REGISTERED OWNER: CEDE & CO.

PRINCIPAL AMOUNT: _____ DOLLARS

The District of Columbia Water and Sewer Authority (the “Authority”), for value received, hereby promises to pay upon surrender hereof at the designated corporate trust office of Computershare Trust Company, N.A., as trustee, or its successor in trust (the “Trustee”), under the Indenture, as hereinafter defined, solely from the sources and as hereinafter provided, to the registered owner hereof, or registered assigns or legal representative, the principal sum stated above on the maturity date stated above, subject to prior redemption as hereinafter provided, and to pay, solely from such sources, interest hereon semiannually on each April 1 and October 1, beginning _____, at the annual rate stated above, calculated on the basis of a 360-day year of twelve 30-day months. Interest is payable from the date of this Series 2022B Subordinate Bond (unless payment of interest hereon is in default, in which case this Series 2022B Subordinate Bond shall bear interest from the date to which interest has been paid). Interest is payable by check or draft mailed to the registered owner hereof at its address as it appears on the fifteenth day of the

month preceding each interest payment date on registration books kept by the Trustee; provided, however, that if the Series 2022B Subordinate Bonds, as hereinafter defined, are registered in the name of a securities depository or its nominee as registered owner or at the option of a registered owner of at least \$1,000,000 of Series 2022B Subordinate Bonds, payment will be made by wire transfer to an account within the United States pursuant to the most recent wire instructions received by the Trustee from such registered owner. Principal, premium, if any, and interest are payable in lawful money of the United States of America. Capitalized terms which are not defined herein shall have the meanings set forth in the Indenture.

Notwithstanding any other provision hereof, this Series 2022B Subordinate Bond is subject to book-entry form maintained by The Depository Trust Company (“DTC”), and the payment of principal, premium, if any, and interest, the providing of notices and other matters shall be made as described in the Authority’s Blanket Letter of Representations to DTC.

This Series 2022B Subordinate Bond is one of an issue of \$_____ Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) (the “Series 2022B Subordinate Bonds”), of like date and tenor, except as to number, denomination, rate of interest, privilege of redemption and maturity. The Series 2022B Subordinate Bonds are being issued on the same day as the Authority’s \$_____ Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1 and \$_____ Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 (the “Series 2022C Subordinate Bonds” and, together with the Series 2022B Subordinate Bonds, the “Series 2022B/C Subordinate Bonds”). The Series 2022B Subordinate Bonds are issued under a Master Indenture of Trust, dated as of April 1, 1998, between the Authority and the Trustee (f.k.a. Norwest Bank, N.A.) (the “Master Indenture”), as amended and supplemented by the Thirtieth Supplemental Indenture of Trust, dated as of [_____, 2022], between the Authority and the Trustee (the “Thirtieth Supplemental Indenture”), and as previously amended and supplemented by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture and the Twenty-Ninth Supplemental, all as defined in the Thirtieth Supplemental Indenture (the “Indenture”). The Series 2022B Subordinate Bonds are secured under the Indenture as Subordinate Debt by a pledge of Net Revenues subordinate to the pledge that secures Senior Debt and on a parity to the pledge that secures other Subordinate Debt. Reference is hereby made to the Indenture for a description of the provisions, among others, with respect to the nature and extent of the security, the rights, duties and obligations of the Authority and the Trustee, the rights of the holders of the Series 2022B Subordinate Bonds and the terms upon which the Series 2022B Subordinate Bonds are issued and secured.

The Series 2022B Subordinate Bonds and the premium, if any, and the interest thereon are limited obligations of the Authority payable from Net Revenues of the System, subject to the prior payment therefrom of the principal of and interest due and payable on all Senior Debt heretofore and hereafter issued or incurred by the Authority, and from certain other funds and accounts pledged thereto by, and on the terms set forth in, the Indenture. The Series 2022B Subordinate Bonds shall be without recourse to the District of Columbia (the “District”). The Series 2022B Subordinate Bonds shall not be general obligations of the District, 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, and shall not constitute lending of the public credit for private undertakings.

The Series 2022B Subordinate Bonds maturing on or after _____, are subject to redemption prior to maturity at the option of the Authority on or after _____, 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.

The Term Series 2022B Subordinate Bonds maturing on _____, and bearing interest at rates of ____% , are required to be redeemed prior to maturity on October 1 in years and amounts upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date, as follows:

Year	Amount
------	--------

† Final Maturity

If fewer than all of the Series 2022B Subordinate Bonds are called for redemption, they shall be called in such order of maturity as the Authority may determine and direct the Trustee in writing. If less than all of the Series 2022B Subordinate Bonds of any maturity date are called for redemption, the Series 2022B Subordinate Bonds to be redeemed shall be selected by DTC pursuant to its rules and procedures or, if the book-entry system is discontinued, shall be selected by the Trustee by lot in such manner as the Trustee in its discretion may determine. The portion of any Series 2022B Subordinate Bond to be redeemed shall be in the principal amount of \$5,000 or some integral multiple thereof. In selecting Series 2022B Subordinate Bonds for redemption, each Series 2022B Subordinate Bond shall be considered as representing that number of Bonds which is obtained by dividing the principal amount of such Series 2022B Subordinate Bond by \$5,000. If a portion of a Series 2022B Subordinate Bond shall be called for redemption, a new Series 2022B Subordinate Bond in principal amount equal to the unredeemed portion thereof shall be issued to the registered owner upon the surrender thereof.

If any of the Series 2022B Subordinate Bonds or portions thereof are called for redemption, the Trustee shall send notice of the call for redemption, identifying the Series 2022B Subordinate Bonds or portions thereof to be redeemed, not fewer than 30 nor more than 60 days prior to the redemption date, by facsimile, registered or certified mail or overnight express delivery, to the registered owner of each such Series 2022B Subordinate Bond. Provided funds for their

redemption are on deposit at the place of payment on the redemption date, all Series 2022B Subordinate Bonds or portions thereof so called for redemption shall cease to bear interest on such date, shall no longer be secured by the Indenture and shall not be deemed to be Outstanding under the provisions of the Indenture. If a portion of the Series 2022B Subordinate Bonds shall be called for redemption, a new Series 2022B Subordinate Bond in principal amount equal to the unredeemed portion hereof will be issued to DTC or its nominee upon the surrender hereof, or if the book-entry system is discontinued, to the registered owners of the Series 2022B Subordinate Bonds.

The registered owner of this Series 2022B Subordinate Bond shall have no right to enforce the provisions of the Indenture or to institute action to enforce the covenants therein or to take any action with respect to any Event of Default or Series 2022B/C Subordinate Bond Event of Default under the Indenture or to institute, appear in or defend any suit or other proceedings with respect thereto, except as provided in the Indenture. Specifically, and without limiting the generality of the foregoing, the Series 2022B Subordinate Bonds, as Subordinate Debt, may not be accelerated if any Senior Debt is outstanding. Modifications or alterations of the Indenture, or of any supplement thereto, may be made only to the extent and in the circumstances permitted by the Indenture.

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 of Directors of the Authority or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board of Directors of the Authority nor any officer of the Authority executing the Series 2022B Subordinate Bonds shall be liable personally on the Series 2022B Subordinate Bonds or be subject to any personal liability or accountability by reason of the issuance thereof. No member of the Board of Directors of the Authority or officer, employee, agent or advisor of the Authority shall incur any personal liability with respect to any other action taken by him or her pursuant to this Series 2022B Subordinate Bond, the Thirtieth Supplemental Indenture or the Indenture or any other document authorized by the Indenture, provided such member, officer, employee, agent or advisor acts in good faith.

The Series 2022B Subordinate Bonds are issuable as registered bonds in denominations of \$5,000 and integral multiples thereof. Upon surrender for transfer or exchange of this Series 2022B Subordinate Bond at the principal corporate trust office of the Trustee, together with an assignment duly executed by the registered owner or its duly authorized attorney or legal representative in such form as shall be satisfactory to the Trustee, the Authority shall execute, and the Trustee shall authenticate and deliver in exchange, a new Series 2022B Subordinate Bond or Series 2022B Subordinate Bonds in the manner and subject to the limitations and conditions provided in the Indenture, having an equal aggregate principal amount, in authorized denominations, of the same series, form and maturity, bearing interest at the same rate and registered in the name or names as requested by the then registered owner hereof or its duly authorized attorney or legal representative. Any such exchange shall be at the expense of the Authority, except that the Trustee may charge the person requesting such exchange the amount of any tax or other governmental charge required to be paid with respect thereto.

The Trustee shall treat the registered owner as the person exclusively entitled to payment of principal, premium, if any, and interest and the exercise of all other rights and powers of the

owner, except that interest payments shall be made to the person shown as owner on the fifteenth day of the month preceding each interest payment date.

All acts, conditions and things required to happen, exist or be performed precedent to and in the issuance of this Series 2022B Subordinate Bond have happened, exist and have been performed.

This Series 2022B Subordinate Bond shall not become obligatory for any purpose or be entitled to any security or benefit under the Indenture or be valid until the Trustee shall have executed the Certificate of Authentication appearing hereon and inserted the date of authentication hereon.

IN WITNESS WHEREOF, the DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY has caused this Series 2022B Subordinate Bond to be executed by the manual or facsimile signatures of the Chairman of the Board of Directors, its seal to be affixed hereto or a facsimile to be printed hereon and attested by the manual or facsimile signature of the Secretary to the Authority, and this Series 2022B Subordinate Bond to be dated [_____], 2022].

ATTEST:

Secretary to the Authority

Chairman

[SEAL]

CERTIFICATE OF AUTHENTICATION

Date Authenticated: _____

This Series 2022B Subordinate Bond is one of the Series 2022B Subordinate Bonds described in the within mentioned Indenture.

Computershare Trust Company, N.A.,
Trustee

By _____
Authorized Officer or Employee

ASSIGNMENT

FOR VALUE RECEIVED the undersigned hereby sell(s), assign(s) and transfer(s) unto

(please print or typewrite name and address, including zip code, of Transferee)

PLEASE INSERT SOCIAL SECURITY OR OTHER
IDENTIFYING NUMBER OF TRANSFEREE

: :
: :
: :
: :

the within Series 2022B Subordinate Bond and all rights thereunder, hereby irrevocably
constituting _____ and _____ appointing

_____, Attorney, to transfer said Series
2022B Subordinate Bond on the books kept for the registration thereof, with full power of
substitution in the premises.

Dated: _____

Signature Guaranteed

NOTICE: Signature(s) must be
guaranteed by an Eligible Guarantor
Institution such as a Commercial
Institution such as a Commercial Bank,
Trust Company, Securities Broker/Dealer,
Credit Union, or Savings Association who
is a member of a medallion program
approved by The Securities Transfer
Association, Inc.

NOTICE: The signature above must
correspond with the name of the registered
owner as it appears on the front of this Series
2022B Subordinate Bond in every
particular, without alteration or enlargement
or any change whatsoever.

EXHIBIT A-2**SERIES 2022C-1 SUBORDINATE BOND FORM**

Unless this certificate is presented by an authorized representative of The Depository Trust Company, a New York corporation (“DTC”), to the Authority or its agent for registration of transfer, exchange, or payment, and any certificate is registered in the name of Cede & Co., or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), **ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL** inasmuch as the registered owner hereof, Cede & Co., has an interest herein.

REGISTERED NO.
RC1-1

REGISTERED
\$ _____

UNITED STATES OF AMERICA

DISTRICT OF COLUMBIA

WATER AND SEWER AUTHORITY

**PUBLIC UTILITY SUBORDINATE LIEN REVENUE AND REVENUE REFUNDING
BOND
SERIES 2022C-1**

INTEREST RATE	MATURITY DATE	DATED DATE	CUSIP
_____%	October 1, [____]	[_____, 2022]	
254845[____]			

REGISTERED OWNER: CEDE & CO.

PRINCIPAL AMOUNT: _____ THOUSAND DOLLARS

The District of Columbia Water and Sewer Authority (the “Authority”), for value received, hereby promises to pay upon surrender hereof at the designated corporate trust office of Computershare Trust Company, N.A., as trustee, or its successor in trust (the “Trustee”), under the Indenture, as hereinafter defined, solely from the sources and as hereinafter provided, to the registered owner hereof, or registered assigns or legal representative, the principal sum stated above on the maturity date stated above, subject to prior redemption as hereinafter provided, and to pay, solely from such sources, interest hereon semiannually on each April 1 and October 1, beginning _____, at the annual rate stated above, calculated on the basis of a 360-day year of twelve 30-day months. Interest is payable from the date of this Series 2022C-1 Subordinate Bond (unless payment of interest hereon is in default, in which case this Series 2022C-1 Subordinate Bond shall bear interest from the date to which interest has been paid). Interest is

payable by check or draft mailed to the registered owner hereof at its address as it appears on the fifteenth day of the month preceding each interest payment date on registration books kept by the Trustee; provided, however, that if the Series 2022C-1 Subordinate Bonds, as hereinafter defined, are registered in the name of a securities depository or its nominee as registered owner or at the option of a registered owner of at least \$1,000,000 of Series 2022C-1 Subordinate Bonds, payment will be made by wire transfer to an account within the United States pursuant to the most recent wire instructions received by the Trustee from such registered owner. Principal, premium, if any, and interest are payable in lawful money of the United States of America. Capitalized terms which are not defined herein shall have the meanings set forth in the Indenture.

Notwithstanding any other provision hereof, this Series 2022C-1 Subordinate Bond is subject to book-entry form maintained by The Depository Trust Company (“DTC”), and the payment of principal, premium, if any, and interest, the providing of notices and other matters shall be made as described in the Authority’s Blanket Letter of Representations to DTC.

This Series 2022C-1 Subordinate Bond is one of an issue of \$_____ Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1 (the “Series 2022C-1 Subordinate Bonds”), of like date and tenor, except as to number, denomination, rate of interest, privilege of redemption and maturity. The Series 2022C-1 Subordinate Bonds are being issued on the same day as the Authority’s \$_____ Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) (the “Series 2022B Subordinate Bonds”) and \$_____ Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 (the “Series 2022C-2 Subordinate Bonds”, and together with the Series 2022C-1 Subordinate Bonds and the Series 2022B Subordinate Bonds, the “Series 2022B/C Subordinate Bonds”). The Series 2022C-1 Subordinate Bonds are issued under a Master Indenture of Trust, dated as of April 1, 1998, between the Authority and the Trustee (f.k.a. Norwest Bank, N.A.) (the “Master Indenture”), as amended and supplemented by the Thirtieth Supplemental Indenture of Trust, dated as of _____, between the Authority and the Trustee (the “Thirtieth Supplemental Indenture”), and as previously amended and supplemented by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture and the Twenty-Ninth Supplemental Indenture, all as defined in the Thirtieth Supplemental Indenture (the “Indenture”). The Series 2022C-1 Subordinate Bonds are secured under the Indenture as Subordinate Debt by a pledge of Net Revenues subordinate to the pledge that secures Senior Debt and on a parity to the pledge that secures other Subordinate Debt. Reference is hereby made to the Indenture for a description of the provisions, among others, with respect to the nature and extent of the security, the rights, duties and obligations of the Authority and the Trustee, the rights of the holders of the Series 2022C-1

Subordinate Bonds and the terms upon which the Series 2022C-1 Subordinate Bonds are issued and secured.

The Series 2022C-1 Subordinate Bonds and the premium, if any, and the interest thereon are limited obligations of the Authority payable from Net Revenues of the System, subject to the prior payment therefrom of the principal of and interest due and payable on all Senior Debt heretofore and hereafter issued or incurred by the Authority, and from certain other funds and accounts pledged thereto by, and on the terms set forth in, the Indenture. The Series 2022C-1 Subordinate Bonds shall be without recourse to the District of Columbia (the "District"). The Series 2022C-1 Subordinate Bonds shall not be general obligations of the District, 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, and shall not constitute lending of the public credit for private undertakings.

The Series 2022C-1 Subordinate Bonds maturing on or after _____, are subject to redemption prior to maturity at the option of the Authority on and after _____, 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.

The Term Series 2022C-1 Subordinate Bonds maturing on _____ and _____, and bearing interest at the rates of ____%, respectively, are required to be redeemed prior to maturity on October 1 in years and amounts upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date, as follows:

The Term Series 2022C-1 Subordinate Bonds maturing _____, and bearing interest at a rate of ____%, are subject to mandatory sinking fund redemption on each October 1 as set forth below:

Year	Amount
------	--------

[†] Final Maturity

The Term Series 2022C-1 Subordinate Bonds maturing _____, and bearing interest at a rate of ____%, are subject to mandatory sinking fund redemption on each October 1 as set forth below:

Year	Amount
------	--------

[†] Final Maturity

If fewer than all of the Series 2022C-1 Subordinate Bonds are called for redemption, they shall be called in such order of maturity as the Authority may determine and direct the Trustee in writing. If less than all of the Series 2022C-1 Subordinate Bonds of any maturity date are called for redemption, the Series 2022C-1 Subordinate Bonds to be redeemed shall be selected by DTC pursuant to its rules and procedures or, if the book-entry system is discontinued, shall be selected by the Trustee by lot in such manner as the Trustee in its discretion may determine. The portion of any Series 2022C-1 Subordinate Bond to be redeemed shall be in the principal amount of \$5,000 or some integral multiple thereof. In selecting Series 2022C-1 Subordinate Bonds for redemption, each Series 2022C-1 Subordinate Bond shall be considered as representing that number of Bonds which is obtained by dividing the principal amount of such Series 2022C-1 Subordinate Bond by \$5,000. If a portion of a Series 2022C-1 Subordinate Bond shall be called for redemption, a new Series 2022C-1 Subordinate Bond in principal amount equal to the unredeemed portion thereof shall be issued to the registered owner upon the surrender thereof.

If any of the Series 2022C-1 Subordinate Bonds or portions thereof are called for redemption, the Trustee shall send notice of the call for redemption, identifying the Series 2022C-1 Subordinate Bonds or portions thereof to be redeemed, not fewer than 30 nor more than 60 days prior to the redemption date, by facsimile, registered or certified mail or overnight express delivery, to the registered owner of each such Series 2022C-1 Subordinate Bond. Provided funds for their redemption are on deposit at the place of payment on the redemption date, all Series 2022C-1 Subordinate Bonds or portions thereof so called for redemption shall cease to bear interest on such date, shall no longer be secured by the Indenture and shall not be deemed to be Outstanding under the provisions of the Indenture. If a portion of the Series 2022C-1 Subordinate Bonds shall be called for redemption, a new Series 2022C-1 Subordinate Bond in principal amount equal to the unredeemed portion hereof will be issued to DTC or its nominee upon the surrender hereof, or if the book-entry system is discontinued, to the registered owners of the Series 2022C-1 Subordinate Bonds.

The registered owner of this Series 2022C-1 Subordinate Bond shall have no right to enforce the provisions of the Indenture or to institute action to enforce the covenants therein or to take any action with respect to any Event of Default or Series 2022B/C Subordinate Bond Event of Default under the Indenture or to institute, appear in or defend any suit or other proceedings with respect thereto, except as provided in the Indenture. Specifically, and without limiting the generality of the foregoing, the Series 2022C-1 Subordinate Bonds, as Subordinate Debt, may not be accelerated if any Senior Debt is outstanding. Modifications or alterations of the Indenture, or of any supplement thereto, may be made only to the extent and in the circumstances permitted by the Indenture.

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 of Directors of the Authority or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board of Directors of the Authority nor any officer of the Authority executing the Series 2022C-1 Subordinate Bonds shall be liable personally on the Series 2022C-1 Subordinate

Bonds or be subject to any personal liability or accountability by reason of the issuance thereof. No member of the Board of Directors of the Authority or officer, employee, agent or advisor of the Authority shall incur any personal liability with respect to any other action taken by him or her pursuant to this Series 2022C-1 Subordinate Bond, the Thirtieth Supplemental Indenture or the Indenture or any other document authorized by the Indenture, provided such member, officer, employee, agent or advisor acts in good faith.

The Series 2022C-1 Subordinate Bonds are issuable as registered bonds in denominations of \$5,000 and integral multiples thereof. Upon surrender for transfer or exchange of this Series 2022C-1 Subordinate Bond at the principal corporate trust office of the Trustee, together with an assignment duly executed by the registered owner or its duly authorized attorney or legal representative in such form as shall be satisfactory to the Trustee, the Authority shall execute, and the Trustee shall authenticate and deliver in exchange, a new Series 2022C-1 Subordinate Bond or Series 2022C-1 Subordinate Bonds in the manner and subject to the limitations and conditions provided in the Indenture, having an equal aggregate principal amount, in authorized denominations, of the same series, form and maturity, bearing interest at the same rate and registered in the name or names as requested by the then registered owner hereof or its duly authorized attorney or legal representative. Any such exchange shall be at the expense of the Authority, except that the Trustee may charge the person requesting such exchange the amount of any tax or other governmental charge required to be paid with respect thereto.

The Trustee shall treat the registered owner as the person exclusively entitled to payment of principal, premium, if any, and interest and the exercise of all other rights and powers of the owner, except that interest payments shall be made to the person shown as owner on the fifteenth day of the month preceding each interest payment date.

All acts, conditions and things required to happen, exist or be performed precedent to and in the issuance of this Series 2022C-1 Subordinate Bond have happened, exist and have been performed.

This Series 2022C-1 Subordinate Bond shall not become obligatory for any purpose or be entitled to any security or benefit under the Indenture or be valid until the Trustee shall have executed the Certificate of Authentication appearing hereon and inserted the date of authentication hereon.

IN WITNESS WHEREOF, the DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY has caused this Series 2022C-1 Subordinate Bond to be executed by the manual or facsimile signatures of the Chairman of the Board of Directors, its seal to be affixed hereto or a facsimile to be printed hereon and attested by the manual or facsimile signature of the Secretary to the Authority, and this Series 2022C-1 Subordinate Bond to be dated [_____ __, 2022].

ATTEST:

Secretary to the Authority

Chairman

[SEAL]

CERTIFICATE OF AUTHENTICATION

Date Authenticated: _____

This Series 2022C-1 Subordinate Bond is one of the Series 2022C-1 Subordinate Bonds described in the within mentioned Indenture.

Computershare Trust Company, N.A.,
Trustee

By _____
Authorized Officer or Employee

ASSIGNMENT

FOR VALUE RECEIVED the undersigned hereby sell(s), assign(s) and transfer(s) unto

(please print or typewrite name and address, including zip code, of Transferee)

PLEASE INSERT SOCIAL SECURITY OR OTHER
IDENTIFYING NUMBER OF TRANSFEREE

: :
: :
: :
: :

the within Series 2022C-1 Subordinate Bond and all rights thereunder, hereby irrevocably
constituting _____ and _____ appointing

_____, Attorney, to transfer said Series
2022C-1 Subordinate Bond on the books kept for the registration thereof, with full power of
substitution in the premises.

Dated: _____

Signature Guaranteed

NOTICE: Signature(s) must be
guaranteed by an Eligible Guarantor
Institution such as a Commercial
Institution such as a Commercial Bank,
Trust Company, Securities Broker/Dealer,
Credit Union, or Savings Association who
is a member of a medallion program
approved by The Securities Transfer
Association, Inc.

NOTICE: The signature above must
correspond with the name of the registered
owner as it appears on the front of this Series
2022C-1 Subordinate Bond in every
particular, without alteration or enlargement
or any change whatsoever.

EXHIBIT A-3

SERIES 2022C-2 SUBORDINATE BOND FORM

Unless this certificate is presented by an authorized representative of The Depository Trust Company, a New York corporation (“DTC”), to the Authority or its agent for registration of transfer, exchange, or payment, and any certificate is registered in the name of Cede & Co., or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, Cede & Co., has an interest herein.

REGISTERED NO.
RC-1

REGISTERED
\$ _____

UNITED STATES OF AMERICA

DISTRICT OF COLUMBIA

WATER AND SEWER AUTHORITY

**PUBLIC UTILITY SUBORDINATE LIEN REVENUE REFUNDING BOND
SERIES 2022C-2**

INTEREST RATE	MATURITY DATE	DATED DATE	CUSIP
_____ %	October 1, [____]	[_____, 2022]	
254845[____]			

REGISTERED OWNER: CEDE & CO.

PRINCIPAL AMOUNT: _____ THOUSAND DOLLARS

The District of Columbia Water and Sewer Authority (the “Authority”), for value received, hereby promises to pay upon surrender hereof at the designated corporate trust office of Computershare Trust Company, N.A., as trustee, or its successor in trust (the “Trustee”), under the Indenture, as hereinafter defined, solely from the sources and as hereinafter provided, to the registered owner hereof, or registered assigns or legal representative, the principal sum stated above on the maturity date stated above, subject to prior redemption as hereinafter provided, and to pay, solely from such sources, interest hereon semiannually on each April 1 and October 1, beginning _____, at the annual rate stated above, calculated on the basis of a 360-day year of twelve 30-day months. Interest is payable from the date of this Series 2022C-2 Subordinate Bond (unless payment of interest hereon is in default, in which case this Series 2022C-2 Subordinate Bond shall bear interest from the date to which interest has been paid). Interest is payable by check or draft mailed to the registered owner hereof at its address as it appears on the

fifteenth day of the month preceding each interest payment date on registration books kept by the Trustee; provided, however, that if the Series 2022C-2 Subordinate Bonds, as hereinafter defined, are registered in the name of a securities depository or its nominee as registered owner or at the option of a registered owner of at least \$1,000,000 of Series 2022C-2 Subordinate Bonds, payment will be made by wire transfer to an account within the United States pursuant to the most recent wire instructions received by the Trustee from such registered owner. Principal, premium, if any, and interest are payable in lawful money of the United States of America. Capitalized terms which are not defined herein shall have the meanings set forth in the Indenture.

Notwithstanding any other provision hereof, this Series 2022C-2 Subordinate Bond is subject to book-entry form maintained by The Depository Trust Company (“DTC”), and the payment of principal, premium, if any, and interest, the providing of notices and other matters shall be made as described in the Authority’s Blanket Letter of Representations to DTC.

This Series 2022C-2 Subordinate Bond is one of an issue of \$_____ Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 (the “Series 2022C-2 Subordinate Bonds”), of like date and tenor, except as to number, denomination, rate of interest, privilege of redemption and maturity. The Series 2022C-2 Subordinate Bonds are being issued on the same day as the Authority’s \$_____ Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) (the “Series 2022B Subordinate Bonds”) and \$_____ Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 (the “Series 2022C-2 Subordinate Bonds”, and together with the Series 2022C-1 Subordinate Bonds and the Series 2022B Subordinate Bonds, the “Series 2022B/C Subordinate Bonds”). The Series 2022C-2 Subordinate Bonds are issued under a Master Indenture of Trust, dated as of April 1, 1998, between the Authority and the Trustee (f.k.a. Norwest Bank, N.A.) (the “Master Indenture”), as amended and supplemented by the Thirtieth Supplemental Indenture of Trust, dated as of _____, between the Authority and the Trustee (the “Thirtieth Supplemental Indenture”), and as previously amended and supplemented by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture and the Twenty-Ninth Supplemental Indenture, all as defined in the Thirtieth Supplemental Indenture (the “Indenture”). The Series 2022C-2 Subordinate Bonds are secured under the Indenture as Subordinate Debt by a pledge of Net Revenues subordinate to the pledge that secures Senior Debt and on a parity to the pledge that secures other Subordinate Debt. Reference is hereby made to the Indenture for a description of the provisions, among others, with respect to the nature and extent of the security, the rights, duties and obligations of the Authority and the Trustee, the rights of the holders of the Series 2022C-2

Subordinate Bonds and the terms upon which the Series 2022C-2 Subordinate Bonds are issued and secured.

The Series 2022C-2 Subordinate Bonds and the premium, if any, and the interest thereon are limited obligations of the Authority payable from Net Revenues of the System, subject to the prior payment therefrom of the principal of and interest due and payable on all Senior Debt heretofore and hereafter issued or incurred by the Authority, and from certain other funds and accounts pledged thereto by, and on the terms set forth in, the Indenture. The Series 2022C-2 Subordinate Bonds shall be without recourse to the District of Columbia (the "District"). The Series 2022C-2 Subordinate Bonds shall not be general obligations of the District, 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, and shall not constitute lending of the public credit for private undertakings.

The Series 2022C-2 Subordinate Bonds maturing on or after _____, are subject to redemption prior to maturity at the option of the Authority on and after _____, 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.

The Term Series 2022C-2 Subordinate Bonds maturing on _____ and _____, and bearing interest at the rates of ____%, respectively, are required to be redeemed prior to maturity on October 1 in years and amounts upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date, as follows:

The Term Series 2022C-2 Subordinate Bonds maturing _____, and bearing interest at a rate of ____%, are subject to mandatory sinking fund redemption on each October 1 as set forth below:

_____ Year	_____ Amount
---------------	-----------------

† Final Maturity

The Term Series 2022C-2 Subordinate Bonds maturing _____, and bearing interest at a rate of ____%, are subject to mandatory sinking fund redemption on each October 1 as set forth below:

_____ Year	_____ Amount
---------------	-----------------

[†] Final Maturity

If fewer than all of the Series 2022C-2 Subordinate Bonds are called for redemption, they shall be called in such order of maturity as the Authority may determine and direct the Trustee in writing. If less than all of the Series 2022C-2 Subordinate Bonds of any maturity date are called for redemption, the Series 2022C-2 Subordinate Bonds to be redeemed shall be selected by DTC pursuant to its rules and procedures or, if the book-entry system is discontinued, shall be selected by the Trustee by lot in such manner as the Trustee in its discretion may determine. The portion of any Series 2022C-2 Subordinate Bond to be redeemed shall be in the principal amount of \$5,000 or some integral multiple thereof. In selecting Series 2022C-2 Subordinate Bonds for redemption, each Series 2022C-2 Subordinate Bond shall be considered as representing that number of Bonds which is obtained by dividing the principal amount of such Series 2022C-2 Subordinate Bond by \$5,000. If a portion of a Series 2022C-2 Subordinate Bond shall be called for redemption, a new Series 2022C-2 Subordinate Bond in principal amount equal to the unredeemed portion thereof shall be issued to the registered owner upon the surrender thereof.

If any of the Series 2022C-2 Subordinate Bonds or portions thereof are called for redemption, the Trustee shall send notice of the call for redemption, identifying the Series 2022C-2 Subordinate Bonds or portions thereof to be redeemed, not fewer than 30 nor more than 60 days prior to the redemption date, by facsimile, registered or certified mail or overnight express delivery, to the registered owner of each such Series 2022C-2 Subordinate Bond. Provided funds for their redemption are on deposit at the place of payment on the redemption date, all Series 2022C-2 Subordinate Bonds or portions thereof so called for redemption shall cease to bear interest on such date, shall no longer be secured by the Indenture and shall not be deemed to be Outstanding under the provisions of the Indenture. If a portion of the Series 2022C-2 Subordinate Bonds shall be called for redemption, a new Series 2022C-2 Subordinate Bond in principal amount equal to the unredeemed portion hereof will be issued to DTC or its nominee upon the surrender hereof, or if the book-entry system is discontinued, to the registered owners of the Series 2022C-2 Subordinate Bonds.

The registered owner of this Series 2022C-2 Subordinate Bond shall have no right to enforce the provisions of the Indenture or to institute action to enforce the covenants therein or to take any action with respect to any Event of Default or Series 2022B/C Subordinate Bond Event of Default under the Indenture or to institute, appear in or defend any suit or other proceedings with respect thereto, except as provided in the Indenture. Specifically, and without limiting the generality of the foregoing, the Series 2022C-2 Subordinate Bonds, as Subordinate Debt, may not be accelerated if any Senior Debt is outstanding. Modifications or alterations of the Indenture, or of any supplement thereto, may be made only to the extent and in the circumstances permitted by the Indenture.

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 of Directors of the Authority or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board of Directors of the Authority nor any officer of the Authority executing the Series 2022C-2 Subordinate Bonds shall be liable personally on the Series 2022C-2 Subordinate

Bonds or be subject to any personal liability or accountability by reason of the issuance thereof. No member of the Board of Directors of the Authority or officer, employee, agent or advisor of the Authority shall incur any personal liability with respect to any other action taken by him or her pursuant to this Series 2022C-2 Subordinate Bond, the Thirtieth Supplemental Indenture or the Indenture or any other document authorized by the Indenture, provided such member, officer, employee, agent or advisor acts in good faith.

The Series 2022C-2 Subordinate Bonds are issuable as registered bonds in denominations of [\$1,000] and integral multiples thereof. Upon surrender for transfer or exchange of this Series 2022C-2 Subordinate Bond at the principal corporate trust office of the Trustee, together with an assignment duly executed by the registered owner or its duly authorized attorney or legal representative in such form as shall be satisfactory to the Trustee, the Authority shall execute, and the Trustee shall authenticate and deliver in exchange, a new Series 2022C-2 Subordinate Bond or Series 2022C-2 Subordinate Bonds in the manner and subject to the limitations and conditions provided in the Indenture, having an equal aggregate principal amount, in authorized denominations, of the same series, form and maturity, bearing interest at the same rate and registered in the name or names as requested by the then registered owner hereof or its duly authorized attorney or legal representative. Any such exchange shall be at the expense of the Authority, except that the Trustee may charge the person requesting such exchange the amount of any tax or other governmental charge required to be paid with respect thereto.

The Trustee shall treat the registered owner as the person exclusively entitled to payment of principal, premium, if any, and interest and the exercise of all other rights and powers of the owner, except that interest payments shall be made to the person shown as owner on the fifteenth day of the month preceding each interest payment date.

All acts, conditions and things required to happen, exist or be performed precedent to and in the issuance of this Series 2022C-2 Subordinate Bond have happened, exist and have been performed.

This Series 2022C-2 Subordinate Bond shall not become obligatory for any purpose or be entitled to any security or benefit under the Indenture or be valid until the Trustee shall have executed the Certificate of Authentication appearing hereon and inserted the date of authentication hereon.

IN WITNESS WHEREOF, the DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY has caused this Series 2022C-2 Subordinate Bond to be executed by the manual or facsimile signatures of the Chairman of the Board of Directors, its seal to be affixed hereto or a facsimile to be printed hereon and attested by the manual or facsimile signature of the Secretary to the Authority, and this Series 2022C-2 Subordinate Bond to be dated [_____ __, 2022].

ATTEST:

Secretary to the Authority

Chairman

[SEAL]

CERTIFICATE OF AUTHENTICATION

Date Authenticated: _____

This Series 2022C-2 Subordinate Bond is one of the Series 2022C-2 Subordinate Bonds described in the within mentioned Indenture.

Computershare Trust Company, N.A.,
Trustee

By _____
Authorized Officer or Employee

ASSIGNMENT

FOR VALUE RECEIVED the undersigned hereby sell(s), assign(s) and transfer(s) unto

(please print or typewrite name and address, including zip code, of Transferee)

PLEASE INSERT SOCIAL SECURITY OR OTHER
IDENTIFYING NUMBER OF TRANSFEREE

: :
: :
: :
: :

the within Series 2022C-2 Subordinate Bond and all rights thereunder, hereby irrevocably
constituting _____ and _____ appointing

_____, Attorney, to transfer said Series
2022C-2 Subordinate Bond on the books kept for the registration thereof, with full power of
substitution in the premises.

Dated: _____

Signature Guaranteed

NOTICE: Signature(s) must be guaranteed by an Eligible Guarantor Institution such as a Commercial Institution such as a Commercial Bank, Trust Company, Securities Broker/Dealer, Credit Union, or Savings Association who is a member of a medallion program approved by The Securities Transfer Association, Inc.

NOTICE: The signature above must correspond with the name of the registered owner as it appears on the front of this Series 2022C-2 Subordinate Bond in every particular, without alteration or enlargement or any change whatsoever.

Exhibit B

Refunded Bonds

B-1

THIRTY-FIRST SUPPLEMENTAL INDENTURE OF TRUST

between

**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

and

**COMPUTERSHARE TRUST COMPANY, N.A.
AS TRUSTEE**

Dated: _____, 2022

THIS THIRTY-FIRST SUPPLEMENTAL INDENTURE OF TRUST dated the ___ day of _____, 2022 (as defined in more detail below, the “**Thirty-First Supplemental Indenture**”), by and between the District of Columbia Water and Sewer Authority (the “**Authority**”), an independent authority of the District of Columbia (the “**District**”), and Computershare Trust Company, N.A., a national banking association, having a corporate trust office in Philadelphia, Pennsylvania, as trustee (in such capacity, together with any successor in such capacity, herein called the “**Trustee**”), provides:

WHEREAS, the Authority and the Trustee (its predecessor in that capacity having been Norwest Bank, N.A.) entered into the Master Indenture of Trust, dated as of April 1, 1998 (the “**Master Indenture**” and, as previously supplemented and amended by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture, the Twenty-Ninth Supplemental Indenture, the Thirtieth Supplemental Indenture and the Thirty-First Supplemental Indenture, all as hereinafter defined, and as it may further be supplemented and amended in accordance with its terms, 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 defined in the Master Indenture); and

WHEREAS, pursuant to the First Supplemental Indenture of Trust, dated as of April 1, 1998 (the “**First Supplemental Indenture**”), between the Authority and the Trustee, the Authority issued its Public Utility Revenue Bonds, Series 1998 (the “**Series 1998 Senior Lien Bonds**”) in the aggregate principal amount of \$266,120,000 to finance Costs of the System (as defined in the Master Indenture) and to refund then outstanding debt of the Authority; and

WHEREAS, the Master Indenture permits the Authority, for certain purposes and subject to certain conditions, to issue Other System Indebtedness (as defined therein) secured on a parity with the Series 1998 Senior Lien Bonds and referred to collectively with the Series 1998 Senior Lien Bonds as “Senior Debt,” and also permits the Authority to issue Subordinate Debt (as defined therein), to which it has pledged to its payment Net Revenues as a subordinate lien pledge after the pledge of Net Revenues to Senior Debt; and

WHEREAS, pursuant to the Second Supplemental Indenture of Trust, dated as of November 1, 2001 (the “**Second Supplemental Indenture**”), between the Authority and the Trustee, the Authority amended and supplemented the Master Indenture in accordance with its terms to clarify provisions thereof related to certain forms of Indebtedness (as defined in the Master

Indenture, i.e., Senior Debt and Subordinate Debt) and thereby facilitate the issuance of such forms of Indebtedness; and

WHEREAS, pursuant to the Third Supplemental Indenture of Trust, dated as of November 1, 2001 (the “**Third Supplemental Indenture**”), between the Authority and the Trustee, the Authority (i) issued its Commercial Paper Notes defined therein as the Series A-B Notes, (ii) designated the Series A-B Notes as Subordinate Debt for purposes of the Indenture, and (iii) made provision for the securing of the Series A-B Notes and of the Reimbursement Obligations to the Bank that provided the Letters of Credit (all as defined therein) that secure the Series A-B Notes; and

WHEREAS, pursuant to the Fourth Supplemental Indenture of Trust, dated August 12, 2003: (the “**Fourth Supplemental Indenture**”), between the Authority and the Trustee, the Authority (i) issued its Public Utility Subordinated Lien Revenue Bonds, Series 2003, dated August 12, 2003 (the “**Series 2003 Subordinated Bonds**”), in the aggregate principal amount of \$176,220,000 to finance certain Costs of the System and retire Series A-B Notes, (ii) designated the Series 2003 Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2003 Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Fifth Supplemental Indenture of Trust, dated August 3, 2004 (the “**Fifth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinated Lien Revenue Bonds, Series 2004, as Subseries 2004A-1, Subseries 2004A-2, Subseries 2004B-1 and Subseries B-2 (collectively, the “**Series 2004 Subordinated Bonds**”) in the aggregate principal amount of \$295,000,000 to finance certain Costs of the System, (ii) designated the Series 2004 Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2004 Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Sixth Supplemental Indenture of Trust, dated June 6, 2007 (the “**Sixth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinated Lien Revenue Bonds, Series 2007A (the “**Series 2007A Subordinated Bonds**”), in the aggregate principal amount of \$218,715,000 to finance certain Costs of the System and retire Series A-B Notes, (ii) designated the Series 2007A Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2007A Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Seventh Supplemental Indenture of Trust, dated June 6, 2007 (the “**Seventh Supplemental Indenture**”), between the Authority and the Trustee, the Authority:

(i) issued its Public Utility Subordinated Lien Taxable Revenue Bonds, Series 2007B (the “**Series 2007B Subordinated Bonds**”), in the aggregate principal amount of \$59,000,000 to finance certain Costs of the System, (ii) designated the Series 2007B Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2007B Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Eighth Supplemental Indenture of Trust, dated April 24, 2008 (the “**Eighth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinated Lien Revenue Refunding Bonds, Series 2008 (the “**Series 2008 Subordinated Bonds**”), in the aggregate principal amount of \$290,375,000 to (a) currently refund all of the outstanding Series 2004 Subordinated Bonds and a portion of the Series 2007B Subordinated Bonds, and (b) pay issuance costs of the Series 2008 Subordinated Bonds, (ii) designated the Series 2008 Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2008 Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Ninth Supplemental Indenture of Trust, dated December 19, 2008 (the “**Ninth Supplemental Indenture**”), between the Authority and the Trustee, the Authority agreed to confer on the Holders of the Series 2003 Subordinated Bonds additional rights related to the Reserve Credit Facility (as defined therein) and to cure any ambiguity or omission in the Indenture regarding the obligations of the Authority as a consequence of a downgrade of the Reserve Policy related to the Series 2003 Subordinated Bonds, or in the event that the Reserve Policy were to cease to be in effect; and

WHEREAS, pursuant to the Tenth Supplemental Indenture of Trust, dated February 12, 2009 (the “**Tenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority (i) issued its Public Utility Senior Lien Revenue Bonds, Series 2009A (the “**Series 2009A Senior Lien Bonds**”), in the aggregate principal amount of \$300,000,000 to finance certain Costs of the System and retire Series A-B Notes, (ii) designated the Series 2009A Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (iii) secured the Series 2009A Senior Lien 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, pursuant to the Eleventh Supplemental Indenture of Trust, dated June 2, 2010, as supplemented and amended by the First Amendment to Eleventh Supplemental Indenture of Trust, dated April 5, 2013, and by the Second Amendment to Eleventh Supplemental Indenture of Trust, dated May 18, 2015 (together, the “**Eleventh Supplemental Indenture**”), each between the Authority and the Trustee, the Authority: (i) authorized the issuance of its (a) Commercial Paper Notes, Series A (the “**2010 Series A Notes**”) in the aggregate principal amount of \$0 to finance certain Costs of the System, (b) Commercial Paper Notes, Series B (the “**2010 Series B**

Notes”) in the aggregate principal amount of \$100,000,000 to finance certain Costs of the System, and (c) Commercial Paper Notes, Series C (the “**2010 Series C Notes**” and, together with the 2010 Series A Notes and the 2010 Series B Note, the “**Series 2010 Notes**”) in the aggregate principal amount of \$50,000,000 to finance certain Costs of the System, (ii) designated the Series 2010 Notes as Subordinate Debt for purposes of the Indenture, and (iii) made provision for the securing of the Series 2010 Notes and of the Authority’s reimbursement obligations to the Bank (as defined in the Eleventh Supplemental Indenture) that provided the Substitute Letters of Credit (as defined in the Eleventh Supplemental Indenture) that secure the Series 2010 Notes; and

WHEREAS, pursuant to the Twelfth Supplemental Indenture of Trust, dated October 27, 2010 (the “**Twelfth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2010A (Federally Taxable – Issuer Subsidy – Build America Bonds) (the “**Series 2010A Subordinated Bonds**”) in the aggregate principal amount of \$300,000,000 to finance certain Costs of the System, and fund capitalized interest on a portion of the Series 2010A Subordinate Bonds, subject to specified limitations, (ii) designated the Series 2010A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, (iii) secured the Series 2010A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, and (iv) included provisions in the Indenture related to potential Direct Payments (as defined therein) received or expected to be received by the Authority, including certain provisions requiring the consent of the holders of a majority of Outstanding Bonds; and

WHEREAS, pursuant to the Thirteenth Supplemental Indenture of Trust, dated March 22, 2012 (the “**Thirteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (A) (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2012A (the “**Series 2012A Subordinated Bonds**”) in the aggregate principal of \$177,430,000 to finance certain Costs of the System and pay certain costs of issuance, (ii) designated the Series 2012A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2012A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; (B) (i) issued its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2012B (the “**Series 2012B Subordinated Bonds**”) in the aggregate principal amount of \$100,000,000 to finance certain Costs of the System, fund capitalized interest on a portion of the Series 2012B Subordinate Bonds subject to specified limitations, and pay certain costs of issuance, (ii) designated the Series 2012B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2012B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and (C) (i) issued its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2012C (the “**Series 2012C Subordinated Bonds**”) in the aggregate principal amount of \$163,215,000, and applied the proceeds thereof, together with any other funds of the Authority, to advance refund the Series 2003 Subordinated Bonds and caused them to be deemed paid and no longer Outstanding

for purposes of the Indenture, and paid certain costs of issuance, (ii) designated the Series 2012C Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2012C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Fourteenth Supplemental Indenture of Trust, dated August 1, 2013 (the “**Fourteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2013A (the “**Series 2013A Subordinate Bonds**”) in the aggregate principal amount of \$300,000,000 to finance certain Costs of the System, and pay certain costs of issuance, (ii) designated the Series 2013A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2013A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Fifteenth Supplemental Indenture of Trust, dated July 23, 2014 (the “**Fifteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority (i) issued its Public Utility Senior Lien Revenue Bonds, Series 2014A (Federally Taxable) (Green Bonds) (the “**Series 2014A Senior Bonds**”) in the aggregate principal amount of \$350,000,000 to finance certain Costs of the System and pay certain costs of issuance, (ii) designated the Series 2014A Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (iii) secured the Series 2014A Senior Lien 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, pursuant to the Sixteenth Supplemental Indenture of Trust, dated July 23, 2014 (the “**Sixteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2014B (the “**Series 2014B Subordinate Bonds**”) in the aggregate principal amount of \$100,000,000 to finance certain Costs of the System and pay certain costs of issuance, (ii) designated the Series 2014B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2014B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Seventeenth Supplemental Indenture of Trust, dated November 20, 2014 (the “**Seventeenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2014C (the “**Series 2014C Subordinate Bonds**”) in the aggregate principal amount of \$377,700,000 to (a) advance refund all or a portion of the Authority’s outstanding Series 2007A Subordinated Bonds, the Series 2008A Subordinated Bonds, and the Series 2009A Senior Lien Bonds, and current refund all of the Authority’s outstanding Subseries 2012B-1 of the Series 2012

Subordinate Bonds, and (b) pay issuance costs of the Series 2014C Subordinate Bonds, (ii) designated the Series 2014C Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2014C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Eighteenth Supplemental Indenture of Trust, dated October 15, 2015 (the “**Eighteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2015A (the “**Series 2015A Subordinate Bonds**”) in the aggregate principal amount of \$100,000,000 to (a) finance certain Costs of the System, and (b) pay issuance costs of the Series 2015A Subordinate Bonds, (ii) designated the Series 2015A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, (iii) secured the Series 2015A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, (iv) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2015B (the “**Series 2015B Subordinate Bonds**”) and, together with the Series 2015A Subordinate Bonds, the “**Series 2015A/B Subordinate Bonds**”) in an aggregate principal amount of \$250,000,000 to (a) finance certain Costs of the System, and (b) pay issuance costs of the Series 2015B Subordinate Bonds, (v) designated the Series 2015B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (vi) secured the Series 2015B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Nineteenth Supplemental Indenture of Trust, dated December 1, 2015 (the “**Nineteenth Supplemental Indenture**”) between the Trustee and the Authority, the Authority authorized (i) the issuance of its Extendable Municipal Commercial Paper Notes, Series A (the “**Series A EMCP Notes**”) in the aggregate principal amount of not to exceed \$100,000,000 outstanding at any time to finance certain Costs of the System, (ii) designated the Series A EMCP Notes as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series A EMCP Notes by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twentieth Supplemental Indenture of Trust, dated February 24, 2016 (the “**Twentieth Supplemental Indenture**”) between the Trustee and the Authority, the Authority (i) issued its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2016A (the “**Series 2016A Subordinate Bonds**”) in the aggregate principal amount of \$389,110,000 to (a) refund all or a portion of the Authority’s outstanding Series 2007A Subordinated Bonds, Series 2008A Subordinated Bonds, and Series 2009A Senior Lien Bonds, and (b) pay issuance costs of the Series 2016A Subordinate Bonds, (ii) designated the Series 2016A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series

2016A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-First Supplemental Indenture of Trust, dated September 29, 2016 (the “**Twenty-First Supplemental Indenture**”) between the Trustee and the Authority, the Authority (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2016B (Environmental Impact Bonds) (the “**Series 2016B Subordinate Bonds**”) in the aggregate principal amount of \$25,000,000 to (a) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project); and (b) pay certain costs of issuance, (ii) designated the Series 2016B Subordinate Bonds as Subordinate Debt, as Variable Rate Indebtedness and as Tender Indebtedness for purposes of the Indenture, and (iii) secured the Series 2016B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Second Supplemental Indenture of Trust, dated February 23, 2017 (the “**Twenty-Second Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Senior Lien Revenue Bonds, Series 2017A (the “**Series 2017A Senior Lien Bonds**”) in the aggregate principal amount of \$100,000,000 to (a) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (b) pay issuance costs of the Series 2017A Senior Lien Bonds, (ii) designated the Series 2017A Senior Lien Bonds as Senior Debt for purposes of the Indenture, (iii) secured the Series 2017A Senior Lien 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, (iv) issued its Public Utility Senior Lien Revenue Bonds, Series 2017B (the “**Series 2017B Senior Lien Bonds**”) and, together with the Series 2017A Senior Lien Bonds, the “**Series 2017A/B Senior Lien Bonds**”) in an aggregate principal amount of \$200,000,000 to (a) finance certain Costs of the System, and (b) pay issuance costs of the Series 2017B Senior Lien Bonds, (v) designated the Series 2017B Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (vi) secured the Series 2017B Senior Lien 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, pursuant to the Twenty-Third Supplemental Indenture of Trust, dated April 30, 2018 (the “**Twenty-Third Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2018A (the “**Series 2018A Senior Lien Bonds**”) in the aggregate principal amount of \$100,000,000 to (a) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (b) pay issuance costs of the Series 2018A Senior Lien Bonds, (ii) designated the Series 2018A Senior Lien Bonds as Senior Debt for purposes of the Indenture, (iii) secured the Series 2018A Senior Lien 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, (iv) issued its Public Utility Senior Lien Revenue Bonds, Series 2018B (the “**Series 2018B Senior Lien Bonds**” and, together with the Series 2018A Senior Lien Bonds, the “**Series 2018A/B Senior Lien Bonds**”) in an aggregate principal amount of \$200,000,000 to (a) finance certain Costs of the System, (b) pay issuance costs of the Series 2018B Senior Lien Bonds and (c) refund all of the Authority’s then outstanding Commercial Paper Notes, Series B, (v) designated the Series 2018B Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (vi) secured the Series 2018B Senior Lien 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, pursuant to the Twenty-Fourth Supplemental Indenture of Trust, dated November 6, 2019, (the “Twenty-Fourth Supplemental Indenture”), between the Authority and the Trustee, the Authority: (i)(a) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2019A (Green Bonds) (the “**Series 2019A Subordinate Bonds**”) in the aggregate principal amount of \$104,010,000 to (1) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (2) pay issuance costs of the Series 2019A Subordinate Bonds, (b) designated the Series 2019A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2019A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, and (ii)(a) issued its Public Utility Subordinate Revenue Bonds, Series 2019B (the “**Series 2019B Subordinate Bonds**” and, together with the Series 2019A Subordinate Bonds, the “**Series 2019A/B Subordinate Bonds**”) in an aggregate principal amount of \$58,320,000 to (1) finance certain Costs of the System, and (2) pay issuance costs of the Series 2019B Subordinate Bonds, (b) designated the Series 2019B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2019B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Fifth Supplemental Indenture of Trust, dated November 6, 2019 (the “Twenty-Fifth Supplemental Indenture”), between the Authority and the Trustee, the Authority: (a) issued its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2019C (the “**Series 2019C Subordinate Bonds**”) in the aggregate principal amount of \$99,505,000 to (1) finance certain Costs of the System, and (2) pay issuance costs of the Series 2019C Subordinate Bonds, (b) designated the Series 2019C Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2019C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Sixth Supplemental Indenture of Trust, dated November 6, 2019 (the “Twenty-Sixth Supplemental Indenture”), between the Authority and the

Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2019D (Federally Taxable) (the “**Series 2019D Subordinate Bonds**”) in the aggregate principal amount of \$343,160,000 to (a) refund the Authority’s outstanding Series 2013A Subordinated Bonds, and (b) pay issuance costs of the Series 2019D Subordinate Bonds, (ii) designated the Series 2019D Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2019D Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Seventh Supplemental Indenture of Trust, dated April 8, 2020 (the “**Twenty-Seventh Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) entered into the 2020 Term Loan Agreement in connection with the Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022A (the “**Series 2022A Subordinate Lien Refunding Bonds**”), (ii) pursuant to the 2020 Term Loan Agreement intends to issue its Series 2022A Subordinate Lien Refunding Bonds in the aggregate principal amount of \$294,305,000 in July 2022 to (a)(I) refund all of its outstanding Series 2012A Subordinate Bonds and Series 2012C Subordinate Bonds; and (II) pay certain costs of issuance, (iii) designated the Series 2022A Subordinate Lien Refunding Bonds as Subordinate Debt for purposes of the Indenture, and (iv) secured the Series 2022A Subordinate Lien Refunding Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future;

WHEREAS, pursuant to the Twenty-Eighth Supplemental Indenture of Trust, dated as of March 5, 2021 (the “**Twenty-Eighth Supplemental Indenture**”) between the Authority and the Trustee, the Authority entered into a revised Master Letter of Credit Agreement with TD Bank, N.A. to provide letters of credit for the benefit of the Authority’s Rolling Owner Controlled Insurance Program, in an aggregate maximum amount at any one time outstanding of \$25,000,000 and secured the Reimbursement Obligations (as defined in the Twenty-Eighth Supplemental Indenture) by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Ninth Supplemental Indenture of Trust, dated as of March 12, 2021 between the Authority and the Trustee, as amended by the First Amendment to the Twenty-Ninth Supplemental Indenture of Trust dated September 17, 2021 between the Authority and the Trustee (together, the “**Twenty-Ninth Supplemental Indenture**”), the Authority (i) entered into a 2021 WIFIA Loan Agreement in connection with the Series 2021 Senior Lien Bonds; (ii) issued its Public Utility Senior Lien Revenue Bonds, Series 2021 Senior Lien Bonds (the “**Series 2021 Senior Lien Bonds**”) in the aggregate principal amount of \$156,367,104 to (1) finance certain Costs of the System (specifically, the costs of the 2021 WIFIA Project as defined therein), and (2) pay issuance costs of the Series 2021 Senior Lien Bond, (iii) designate the Series 2021 Senior Lien Bond as Senior Debt for purposes of the Indenture, and (iv) secure the Series 2021 Senior Lien Bond 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, pursuant to the Thirtieth Supplemental Indenture of Trust, dated _____, 2022 (the “**Thirtieth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i)(a) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) (the “**Series 2022B Subordinate Bonds**”) in the aggregate principal amount of \$_____ to (1) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (2) pay issuance costs of the Series 2022B Subordinate Bonds, (b) designate the Series 2022B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (c) secure the Series 2022B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, (ii)(a) issue the Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1 in an aggregate principal amount of \$_____ (the “**Series 2022C-1 Subordinate Bonds**”) to (1) finance certain Costs of the System, (2) refund a portion of the outstanding subordinate commercial paper notes, (3) purchase the Purchased Refunded Bonds and (4) pay issuance costs of the Series 2022C Subordinate Bonds and (b) designate the Series 2022C-1 Subordinate Bonds as Subordinate Debt for purposes of the Indenture, (iii)(a) issue the Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 in an aggregate principal amount of \$_____ (the “**Series 2022C-2 Subordinate Bonds**”, together with the Series 2022C-1 Subordinate Bonds, the “**Series 2022C Subordinate Bonds**” and together with the Series 2022C-1 Subordinate Bonds and the Series 2022B Subordinate Bonds, the “**Series 2022B/C Subordinate Bonds**”) to replace the Exchanged Refunded Bonds and (b) designate the Series 2022C-2 Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iv) secure the Series 2022C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, the Authority now intends to: (i) issue Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable) (the “**Series 2022D Subordinate Bonds**”) in the aggregate principal amount of \$_____ to (a) finance certain Costs of the System, (b) refund all or a portion of the Authority’s outstanding [Series _____ Subordinated Bonds] (the “**Refunded Bonds**”), and (c) pay issuance costs of the Series 2022D Subordinate Bonds, (ii) designate the Series 2022D Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secure the Series 2022D Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future.

NOW THEREFORE, in consideration of the premises and the mutual covenants and agreements hereinafter contained, the parties hereto agree, as follows:

ARTICLE I
THIRTY-FIRST SUPPLEMENTAL INDENTURE

Section 101. Authorization of Thirty-First Supplemental Indenture.

This Thirty-First Supplemental Indenture is authorized and executed by the Authority and delivered to the Trustee pursuant to and in accordance with Articles III and X of the Master Indenture. All terms, covenants, conditions and agreements of the Indenture shall apply with full force and effect to the Series 2022D Subordinate Bonds as Subordinate Debt and to the Holders thereof as Holders of Subordinate Debt, except as otherwise provided in this Thirty-First Supplemental Indenture.

Section 102. Definitions.

Except as otherwise defined in this Thirty-First Supplemental Indenture, capitalized words and terms defined in the Master Indenture as amended by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture, the Twenty-Ninth Supplemental Indenture and the Thirtieth Supplemental Indenture are used in this Thirty-First Supplemental Indenture with the meanings assigned to them therein. In addition, the following words as used in this Thirty-First Supplemental Indenture have the following meanings unless the context or use clearly indicates another or different intent or meaning:

“Book-entry form” or “book-entry system” means a form or system under which the physical Series 2022D Subordinate Bond certificates in fully registered form are issued only to a Depository or its nominee as Holder, with the certificated Series 2022D Subordinate Bonds held by and “immobilized” in the custody of the Depository, and the book-entry system, maintained by and the responsibility of the Depository and not maintained by or the responsibility of the Authority or the Trustee, is the record that identifies, and records the transfer of the interests of, the owners of beneficial, book-entry interests in the Series 2022D Subordinate Bonds.

“Depository” means any securities depository that is a clearing agency under federal law operating and maintaining, with its participants or otherwise, a book-entry system to record ownership of book-entry interests in Series 2022D Subordinate Bonds, and to effect transfers of book-entry interests in Series 2022D Subordinate Bonds, and includes and means initially The Depository Trust Company (a limited purpose trust company) (“DTC”), New York, New York.

“Interest Payment Dates” for the Series 2022D Subordinate Bonds means each April 1 and October 1 commencing October 1, 2022, and thereafter during the time the Series 2022D Subordinate Bonds are outstanding.

“Series 2022D Construction Account” means the Series 2022D Construction Account established by this the Thirty-First Supplemental Indenture in the Construction Fund.

“Series 2022D Costs of Issuance Subaccount” means the Series 2022D Costs of Issuance Subaccount established by this Thirty-First Supplemental Indenture in the Series 2022D Construction Account of the Construction Fund.

“Series 2022D Escrow Account” means the Series 2022D Escrow Account established by this Thirty-First Supplemental Indenture.

“Series 2022D Resolution” means Resolution No. [__-__] adopted by the Authority’s Board on _____, 20__, respectively, authorizing the Series 2022D Subordinate Bonds.

“Series 2022D Subordinate Bond Event of Default” means any of the events defined as such in Section 703 of this Thirty-First Supplemental Indenture.

“Series 2022D Subordinate Bondholder” or “holder of Series 2022D Subordinate Bonds” means the registered owner of a Series 2022D Subordinate Bond.

“Series 2022D Subordinate Bonds Interest Subaccount” means the Series 2022D Subordinate Bonds Interest Subaccount established by this Thirty-First Supplemental Indenture in the Subordinate Interest Account in the Subordinate Bond Fund.

“Series 2022D Subordinate Bonds Principal Subaccount” means the Series 2022D Subordinate Bonds Principal Subaccount established by this Thirty-First Supplemental Indenture in the Subordinate Principal Account in the Subordinate Bond Fund.

“Series 2022D Subordinate Debt Service Reserve Requirement” means zero.

“Thirty-First Supplemental Indenture” means this Thirty-First Supplemental Indenture of Trust, dated _____, 2022, between the Authority and the Trustee, which supplements and amends the Master Indenture, as previously supplemented and amended by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh

Supplemental Indenture, the Twenty-Eighth Supplemental Indenture, the Twenty-Ninth Supplemental Indenture and the Thirtieth Supplemental Indenture.

Section 103. Reference to Articles and Sections.

Unless otherwise indicated, all references herein to particular articles or sections are references to articles or sections of this Thirty-First Supplemental Indenture.

**ARTICLE II
AUTHORIZATION, DETAILS AND FORM
OF SERIES 2022D SUBORDINATE BONDS**

Section 201. Authorization of Series 2022D Subordinate Bonds.

Pursuant to Article III of the Master Indenture and, specifically, Section 305 thereof, and the Series 2022D Resolution, the Authority is authorized to issue the Series 2022D Subordinate Bonds in the aggregate principal amount of \$_____ for the purpose of: (i) financing Costs of the System (ii) [refunding all or a portion of the Series _____ Subordinated Bonds] and (iii) paying issuance costs of the Series 2022D Subordinate Bonds. The Series 2022D Subordinate Bonds shall be issued as Subordinate Debt pursuant to the Indenture.

Section 202. Details of Series 2022D Subordinate Bonds.

The Series 2022D Subordinate Bonds shall be designated “Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable),” shall be dated _____, 2022, shall be issuable only as fully registered bonds in denominations of \$5,000 and multiples thereof, shall be numbered R-1 upward and shall bear interest at rates, payable semiannually on the Interest Payment Dates, until their final payment or maturity, and shall mature on October 1 in years and amounts, as follows:

Due (Oct. 1)	Principal Amount	Interest Rate
2022		
2023		
2024		
2025		
2026		
2027		
2028		
2029		
2030		
2031		
2032		
2033		
2034		
2039		
2048		
2049		
2050		

Each Series 2022D Subordinate Bond shall bear interest: (a) from its date, if such Series 2022D Subordinate Bond is authenticated prior to the first Interest Payment Date, or (b) otherwise from the Interest Payment Date that is, or immediately precedes, the date on which such Series 2022D Subordinate Bond is authenticated; provided, however, that if at the time of authentication of any Series 2022D Subordinate Bond payment of interest is in default, such Series 2022D Subordinate Bond shall bear interest from the date to which interest has been paid. The interest payable on the Series 2022D Subordinate Bonds will be computed on the basis of a 360-day year of twelve 30-day months.

Principal of and premium, if any, on the Series 2022D Subordinate Bonds shall be payable to the registered owners thereof upon the surrender of the applicable Series 2022D Subordinate Bonds at the designated office of the Trustee. Interest on the Series 2022D Subordinate Bonds shall be payable by check or draft mailed to the registered owners at their addresses as they appear on the fifteenth day of the month preceding the Interest Payment Date on the registration books kept by the Trustee; provided, however, if the Series 2022D Subordinate Bonds are registered in the name of a Depository or its nominee as registered owner or at the option of a registered owner of at least \$1,000,000 of Series 2022D Subordinate Bonds, payment shall be made by wire transfer to an account within the United States pursuant to the wire instructions received by the Trustee with respect to each such payment from such registered owner. Principal, premium, if any, and interest shall be payable in lawful money of the United States of America.

Section 203. Form of Bonds.

The Series 2022D Subordinate Bonds shall be in substantially the form set forth in **Exhibit A**, with such appropriate variations, omissions and insertions as are permitted or required by the Indenture.

Section 204. Depository Provisions.

The Series 2022D Subordinate Bonds shall initially be issued to a Depository for holding in a book-entry system. Those Series 2022D Subordinate Bonds shall be registered in the name of the Depository or its nominee, as registered owner, and immobilized in the custody of the Depository or the Trustee on behalf of the Depository; and shall not be transferable or exchangeable, except for transfer to another Depository or to another nominee of a Depository, without further action by the Authority.

If any Depository determines not to continue to act as a Depository for the Series 2022D Subordinate Bonds for holding in a book-entry system or the Authority determines to remove the Series 2022D Subordinate Bonds from a Depository, the Authority may attempt to have established a securities depository/book-entry system relationship with another qualified Depository. If the Authority does not or is unable to do so, the Authority, after making provision for notification of the owners of book-entry interests by appropriate notice to the then Depository and any other arrangements it deems necessary, shall permit withdrawal of the Series 2022D Subordinate Bonds from the Depository, and shall execute and direct the Trustee to authenticate and deliver Series 2022D Subordinate Bond certificates, in fully registered form, to the assigns of the Depository or its nominee (if such Series 2022D Subordinate Bonds were held by a nominee), all at the cost and expense (including costs of printing or otherwise preparing and delivering replacement Series 2022D Subordinate Bonds), if the event is not the result of Authority action or inaction, of those persons requesting that authentication and delivery. Series 2022D Subordinate Bond certificates authenticated and delivered pursuant to this paragraph shall be in authorized denominations. In the event that Series 2022D Subordinate Bonds shall cease to be in book-entry form, then the Authority or the Depository shall provide to the Trustee the name, address of record and taxpayer identification number of each registered holder thereof. The Trustee may rely on such information without any investigation.

If the Series 2022D Subordinate Bonds are withdrawn from a Depository and printed bond certificates in fully registered form are or are to be authenticated and delivered pursuant to this Section, and if the Authority, without the consent of or notice to any of the holders of the Series 2022D Subordinate Bonds, may authorize the exchange of Series 2022D Subordinate Bond certificates in fully registered form or Series 2022D Subordinate Bonds under a book-entry system for coupon bonds payable to bearer, in an aggregate principal amount not exceeding the then unmatured and unredeemed principal amount of the Series 2022D Subordinate Bonds, bearing interest at the same rate and maturing on the same date, with coupons attached representing all unpaid interest due or to become due thereon. Such certificated Series 2022D Subordinate Bonds will be registrable, transferable and exchangeable as set forth in Section 204 and Section 205 of the Master Indenture.

So long as a Depository holds the Series 2022D Subordinate Bonds in a book-entry system (A) it or its nominee shall be the registered owner of the Series 2022D Subordinate Bonds, (B) notwithstanding anything to the contrary in this Thirty-First Supplemental Indenture, determinations of persons entitled to payment of principal, premium, if any, and interest, transfers of ownership and exchanges and receipt of notices shall be the responsibility of the Depository and shall be effected pursuant to rules and procedures established by such Depository, (C) the Authority and the Trustee shall not be responsible or liable for maintaining, supervising or

reviewing the records maintained by the Depository, its participants or persons acting through such participants, and (D) references in this Thirty-First Supplemental Indenture to registered owners of the Series 2022D Subordinate Bonds shall mean such Depository or its nominee and shall not mean the beneficial owners of the Series 2022D Subordinate Bonds.

Section 205. Delivery of Series 2022D Subordinate Bonds.

The Trustee shall authenticate and deliver the Series 2022D Subordinate Bonds when there have been filed with or delivered to it the following items:

- (a) An original executed counterpart of this Thirty-First Supplemental Indenture;
- (b) A certified copy of applicable resolution(s) of the Board of Directors of the Authority and related Certificate of Award: (i) authorizing the execution and delivery of the Thirty-First Supplemental Indenture, and (ii) authorizing the issuance, sale, award, execution and delivery of the Series 2022D Subordinate Bonds.
- (c) A certificate signed by an Authorized Representative of the Authority and dated the date of such issuance, to the effect that:
 - (1) Either: (A) upon and immediately following such issuance, no Event of Default has occurred which has not been cured or waived, and no event or condition exists which, with the giving of notice or lapse of time or both, would become an Event of Default, or (B) if any such event or condition is happening or existing, specifying such event or condition, stating that the Authority will act with due diligence to correct such event or condition after the issuance of the Series 2022D Subordinate Bonds, and describing in reasonable detail the actions to be taken by the Authority toward such correction; and
 - (2) All required approvals, limitations, conditions and provisions precedent to the issuance of the Series 2022D Subordinate Bonds have been obtained, observed, met and satisfied.
- (d) An Opinion or Opinions of Counsel, subject to customary exceptions and qualifications, substantially to the effect that this Thirty-First Supplemental Indenture has been duly authorized, executed and delivered to the Trustee, is a valid, binding and enforceable obligation of the Authority, and complies in all respects with the requirements of the Indenture.
- (e) An opinion or opinions of Co-Bond Counsel, subject to customary exceptions and qualifications, substantially to the effect that the issuance of the Series 2022D Subordinate Bonds has been duly authorized, that the Series 2022D Subordinate Bonds are valid and binding limited obligations of the Authority, and that the interest on the Series 2022D Subordinate Bonds is excludable from gross income for purposes of District of Columbia income taxation.
- (f) A certificate of an Authorized Representative of the Authority, stating that rates, fees and charges are in effect or scheduled to go into effect to meet the Rate Covenant immediately after the issuance of the Series 2022D Subordinate Bonds.

(g) A request and authorization of the Authority, signed by an Authorized Representative of the Authority, to the Trustee to authenticate and deliver such Bonds to the purchaser upon payment to the Trustee in immediately available funds for the account of the Authority of a specified sum plus accrued interest to the date of delivery.

(h) [An Escrow Agreement].

ARTICLE III REDEMPTION OF SERIES 2022D SUBORDINATE BONDS

Section 301. Redemption Dates and Prices.

The Series 2022D Subordinate Bonds may not be called for redemption by the Authority except as provided below:

(a) Optional Redemption.

(1) *Make-Whole Optional Redemption Prior to October 1, 20__.*

The Series 2022D Subordinate Bonds are subject to redemption prior to their stated maturities, at the option of the Authority, on any date prior to October 1, 20__ from any source of available funds, as a whole or in part, at a redemption price equal to the principal amount thereof plus the Make-Whole Premium (as defined in this Section 301(a)(1)), if any, plus accrued interest to the date fixed for redemption. For purposes of this Section 301(a)(1), the following terms have the meaning ascribed to them below:

“Make-Whole Premium” means, with respect to any Series 2022D Subordinate Bond to be redeemed, an amount calculated by a Designated Institution (as defined in this Section 301(a)(1)) equal to the positive difference, if any, between:

(A) the sum of the present values, calculated as of the date fixed for redemption of:

(i) each interest payment that, but for the redemption, would have been payable on the Series 2022D Subordinate Bond or a portion thereof being redeemed on each regularly scheduled Interest Payment Date occurring after the date fixed for redemption through the maturity date of such Series 2022D Subordinate Bond (excluding any accrued interest for the period prior to the date fixed for redemption); provided that if the date fixed for redemption is not a regularly scheduled Interest Payment Date with respect to such Series 2022D Subordinate Bond, the amount of the next regularly scheduled interest payment will be reduced by the amount of interest accrued on such Series 2022D Subordinate Bond to the date fixed for redemption; plus

(ii) the principal amount that, but for such redemption, would have been payable on the maturity date of the Series 2022D Subordinate Bond or portion thereof being redeemed; minus

(B) the principal amount of the Series 2022D Subordinate Bonds or portion thereof being redeemed.

The present values of the interest and principal payments referred to in (1) above will be determined by discounting the amount of each such interest and principal payment from the date that each such payment would have been payable but for the redemption to the date fixed for redemption on a semiannual basis (assuming a 360-day year consisting of twelve 30-day months) at a discount rate equal to the Comparable Treasury Yield (as defined in this Section 301(a)(1)), plus: (i) for the Series 2022D Subordinate Bonds maturing prior to October 1, [], [] basis points; (ii) for the Series 2022D Subordinate Bonds maturing between October 1, [] and October 1, [], [] basis points; and (iii) for the Series 2022D Subordinate Bonds maturing after October 1, [], [] basis points.

“Comparable Treasury Yield” means the yield appearing in the most recently published statistical release designated “H.15(519) Selected Interest Rates” under the heading “Treasury Constant Maturities,” or any successor publication selected by the Designated Banking Institution that is published weekly by the Board of Governors of the Federal Reserve System and that establishes yields on actively traded United States Treasury securities adjusted to constant maturity, for the maturity corresponding to the remaining term to maturity of the Series 2022D Subordinate Bond being redeemed. The Comparable Treasury Yield shall be determined at least two business days but not more than 45 calendar days preceding the applicable date fixed for redemption. If the H.15(519) statistical release sets forth a weekly average yield for United States Treasury securities that have a constant maturity that is the same as the remaining term to maturity of the Series 2022D Subordinate Bond being redeemed, then the Comparable Treasury Yield will be equal to such weekly average yield. In all other cases, the Comparable Treasury Yield will be calculated by interpolation on a straight-line basis, between the weekly average yields on the United States Treasury securities that have a constant maturity (i) closest to and greater than the remaining term to maturity of the Series 2022D Subordinate Bond being redeemed; and (ii) closest to and less than the remaining term to maturity of the Series 2022D Subordinate Bond being redeemed. Any weekly average yields calculated by interpolation will be rounded to the nearest 1/100th of 1%, with any figure of 1/200th of 1% or above being rounded upward. If, and only if, weekly average yields for United States Treasury securities for the preceding week are not available in the H.15(519) statistical release or any successor publication, then the Comparable Treasury Yield will be the rate of interest per annum equal to the semiannual equivalent yield to maturity of the Comparable Treasury Price (each as defined in this Section 301(a)(1)) as of the date fixed for redemption.

“Comparable Treasury Issue” means the United States Treasury selected by the Designated Banking Institution as having a maturity comparable to the remaining term to maturity of the Series 2022D Subordinate Bond being redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term to maturity of the Series 2022D Subordinate Bond being redeemed.

“Designated Banking Institution” means an investment banking institution of national standing which is a primary United States government securities dealer in the City of New York designated by the Authority (which may be one of the underwriters of the Series 2022D Subordinate Bonds).

“Comparable Treasury Price” means, with respect to any date on which a Series 2022D Subordinate Bond or portion thereof is being redeemed, either (i) the average of five Reference Treasury Dealer (as defined in this Section 301(a)(1) quotations for the date fixed for redemption, after excluding the highest and lowest such quotations, and (ii) if the Designated Banking Institution is unable to obtain five such quotations, the average of the quotations that are obtained. The quotations will be the average, as determined by the Designated Banking Institution, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of principal amount) quoted in writing to the Designated Banking Institution, at 2:00 p.m. New York City time on a business day at least two business days but no more than 45 calendar days preceding the applicable date fixed for redemption.

“Reference Treasury Dealer” means a primary United States Government securities dealer in the United States appointed by the Authority and reasonably acceptable to the Designated Banking Institution (which may be one of the underwriters of the Series 2022D Subordinate Bonds).

(2) *Optional Redemption On or After October 1, 20__.*

The Series 2022D Subordinate Bonds maturing on or after October 1, 20__, are subject to redemption prior to maturity at the option of the Authority on or after October 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.

(b) Mandatory Redemption.

The Series 2022D Subordinate Bonds maturing on October 1, 20__ (the “Series 2022D 20__ Term Bonds”), are required to be redeemed prior to maturity on October 1 in years and amounts upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date, as follows:

<u>Year</u>	<u>Amount</u>
-------------	---------------

*

* Final Maturity

The Series 2022D Subordinate Bonds maturing on October 1, 20__ (the “Series 2022D ____ Term Bonds” and, collectively with the Series 2022D 20__ Term Bonds, the “Series 2022D Term Bonds”), are required to be redeemed prior to maturity on October 1 in years and amounts upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date, as follows:

Year Amount

*

* Final Maturity

The Trustee shall provide for a mandatory redemption of the Series 2022D Term Bonds in accordance with the schedules set forth above; provided, however, that on or before the 70th day next preceding any such mandatory redemption date, the Authority may:

(1) deliver to the Trustee for cancellation Series 2022D Term Bonds of the maturity required to be redeemed on such mandatory redemption date in any aggregate principal amount desired; or

(2) instruct the Trustee in writing to apply a credit against the Authority's next mandatory redemption obligation for any such Series 2022D Term Bonds that previously have been redeemed (other than through mandatory redemption) and canceled but not theretofore applied as a credit against any mandatory redemption obligation.

Upon the occurrence of any of the events described in clauses (1) or (2) of the preceding sentence, the Trustee shall credit against the Authority's mandatory redemption obligation on the next mandatory redemption date the amount of such Series 2022D Term Bonds so delivered or previously redeemed. Any principal amount of such Series 2022D Term Bonds in excess of the principal amount required to be redeemed on such mandatory redemption date shall be similarly credited in an amount equal to the principal of such Series 2022D Term Bonds so purchased towards the sinking fund installments for the Series 2022D Term Bonds of such maturity on a pro rata basis in accordance with a certificate of an Authorized Representative of the Authority, which will direct the reduction of a ratable portion of each annual mandatory sinking fund installment requirement in accordance with the procedures set forth below. Within seven days of receipt of such Series 2022D Term Bonds or instructions to apply as a credit, any amounts remaining in the Sinking Fund Account in excess of the amount required to fulfill the remaining required mandatory redemption obligation on the next mandatory redemption date shall be used in such manner as determined at the written direction of the Authority.

The particular maturities of the Series 2022D Subordinate Bonds to be redeemed at the option of the Authority will be selected from such maturities as shall be determined by the Authority, upon advice from Co-Bond Counsel.

If less than all the Series 2022D Subordinate Bonds of a particular maturity shall be called for any optional redemption or mandatory sinking fund redemption: (i) if the Series 2022D

Subordinate Bonds are not registered in book entry only form, any redemption of less than all of the Series 2022D Subordinate Bonds will be allocated among the registered owners of such Series 2022D Subordinate Bonds being redeemed as nearly as practicable in proportion to the amounts of the principal amounts of the Series 2022D Subordinate Bonds owned by each registered owner, in authorized denominations, calculated based on the formula: (principal to be redeemed) x (principal amount owned by such owner) / (total principal amount outstanding), and the particular Series 2022D Subordinate Bonds to be redeemed will be determined by the Trustee in any manner as the Trustee in its sole discretion deems fair and appropriate and (ii) if the Series 2022D Subordinate Bonds are in book entry only form and so long as DTC or a successor securities depository is the sole registered owner of the Series 2022D Subordinate Bonds, any redemption of less than all of the Series 2022D Subordinate Bonds will be done in accordance with DTC's procedures in effect at such time. It is the Authority's intent that redemption allocations made by DTC, the DTC Participants or such other intermediaries that may exist between the Authority and the Beneficial Owners be made on a pro rata pass-through distribution of principal basis; provided, however, the Authority provides no assurance that DTC, the DTC Participants or any other intermediary will allocate redemptions among Beneficial Owners on such a proportional basis.

Section 302. Notice of Redemption.

Notice of redemption of Series 2022D Subordinate Bonds shall be given in the manner set forth in Section 402 of the Master Indenture, as though the Series 2022D Subordinate Bonds constituted "Bonds" for purposes of that Section; provided, however, that notices of redemption of Series 2022D Subordinate Bonds sent pursuant to Section 402 of the Master Indenture shall either (i) explicitly state that the proposed redemption is conditioned on 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 2022D Subordinate Bonds to be redeemed, or (ii) be sent only if sufficient money to pay the full redemption price of the Series 2022D Subordinate Bonds to be redeemed is on deposit in the applicable fund or account. Notwithstanding the foregoing and the otherwise applicable requirement of Section 402 of the Master Indenture that the Trustee send notice of a call for redemption not fewer than 30 days prior to the redemption date, the Trustee may send any notice of redemption of Series 2022D Subordinate Bonds not fewer than 20 days prior to the redemption date or such shorter period of time as may be acceptable to the Depository while the Series 2022D Subordinate Bonds are in book-entry form and registered with a Depository, initially DTC.

**ARTICLE IV
APPLICATION OF PROCEEDS OF SERIES 2022D SUBORDINATE BONDS**

Section 401. Application of Proceeds of Series 2022D Subordinate Bonds; Application of Related Amounts.

The net proceeds of the Series 2022D Subordinate Bonds in the amount of \$_____, which represents the par amount of the Series 2022D Subordinate Bonds (\$_____) minus the underwriters' discount (\$_____), at the request and direction of the Authority shall be applied as follows:

(a) \$_____ shall be deposited in the Series 2022D Construction Account; and

(b) \$_____ shall be deposited in the Series 2022D Escrow Account together with \$_____ from the Series 2014C Subordinate Bonds Interest Subaccount in the Subordinate Interest Account in the Subordinate Bond Fund; and

(c) \$_____ shall be deposited in the Series 2022D Costs of Issuance Subaccount of the Series 2022D Construction Account of the Construction Fund and used to pay costs of issuance of the Series 2022D Subordinate Bonds.

**ARTICLE V
FUNDS AND ACCOUNTS**

Section 501. Series 2022D Construction Account and Series 2022D Escrow Account.

In the Construction Fund, there shall be established a Series 2022D Construction Account and, within that Account, a Series 2022D Costs of Issuance Subaccount. The portion of the proceeds of the Series 2022D Subordinate Bonds specified in Section 401(b) shall be deposited in the Series 2022D Costs of Issuance Subaccount and used to pay costs of issuance related to the Series 2022D Subordinate Bonds. When all costs of issuance have been paid or moneys have been reserved to pay all remaining unpaid costs of issuance, the balance of any Series 2022D Subordinate Bond proceeds remaining in excess of the amount to be reserved for payment of unpaid costs of issuance shall be deposited in the Subordinate Bond Fund to be used solely to pay principal of and interest on the Series 2022D Subordinate Bonds, in either case to the extent approved by Co-Bond Counsel.

The Trustee shall establish and hold the Series 2022D Escrow Account for the purpose of receiving the proceeds of the Series 2022D Subordinate Bonds to be deposited therein pursuant to Section 401. Those proceeds, together with any other funds to be deposited in the Series 2022D Escrow Account pursuant to the Escrow Agreement, shall be applied pursuant to the Escrow Agreement to the payment of the principal of, interest on, and redemption price of the Refunded Bonds.

Section 502. Series 2022D Subordinate Bonds Subaccounts in the Subordinate Interest Account and Subordinate Principal Account.

(a) Within the Subordinate Interest Account there shall be established a “Series 2022D Subordinate Bonds Interest Subaccount.” Within the Subordinate Principal Account there shall be established a “Series 2022D Subordinate Bonds Principal Subaccount.”

(b) In accordance with Section 604(e) of the Master Indenture, Net Revenues shall be deposited in the Series 2022D Subordinate Bonds Interest Subaccount on or prior to the last Business Day of each of the six months prior to any month in which an Interest Payment Date occurs, in an amount equal to one-sixth (1/6) of the interest due and payable on the Series 2022D Subordinate Bonds on such Interest Payment Date.

(c) In accordance with Section 604(e) of the Master Indenture, Net Revenues shall be deposited in the Series 2022D Subordinate Bonds Principal Subaccount on or prior to the last Business Day of each of the twelve months prior to any month in which principal of Series 2022D Subordinate Bonds is payable on their stated maturity date or pursuant to mandatory redemption requirements, in an amount equal to one-twelfth (1/12) of the principal amount scheduled to be due and payable on the Series 2022D Subordinate Bonds in such month.

**ARTICLE VI
SECURITY FOR SERIES 2022D SUBORDINATE BONDS**

Section 601. Security for Series 2022D Subordinate Bonds.

The Series 2022D Subordinate Bonds shall be secured as Subordinate Debt under the Indenture, including, without limitation, by a pledge of: (i) Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures Subordinate Debt, including, without limitation, any other Subordinate Debt that the Authority may issue in the future, without preference, priority or distinction of any Series 2022D Subordinate Bond over any other Series 2022D Subordinate Bond or of any Subordinate Debt over any other Subordinate Debt, as provided in the Indenture; and (ii) the moneys and Permitted Investments in the Subordinate Bond Fund on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, any other Subordinate Debt that the Authority may issue in the future, without preference, priority or distinction of any Series 2022D Subordinate Bond over any other Series 2022D Subordinate Bond or of any Subordinate Debt over any other Subordinate Debt, as provided in the Indenture.

Pursuant to the WASA Act (as defined in the Master Indenture), the Authority hereby includes in this Thirty-First Supplemental Indenture the pledge of the District to the Authority and any holders of its bonds that, except as provided in the WASA 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 the 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.

**ARTICLE VII
DEFAULTS AND REMEDIES**

Section 701. Application of Article IX and Other Remedies Provisions of the Master Indenture.

The Series 2022D Subordinate Bonds do not constitute “Bonds” under the Master Indenture. Accordingly, the provisions of Article IX of the Master Indenture that confer certain rights upon the Holders of Bonds or a specified percentage thereof do not apply to the Series 2022D Subordinate Bonds or to the Series 2022D Subordinate Bondholders. Pursuant to Section 305 of the Master Indenture, the Series 2022D Subordinate Bonds, as Subordinate Debt, may not be accelerated if any Senior Debt is outstanding.

Section 702. Rights of Series 2022D Subordinate Bondholders Upon Occurrence of Events of Default.

In addition to and in furtherance and implementation of the rights that Series 2022D Subordinate Bondholders have under the penultimate paragraph of Section 906 of the Master Indenture, Sections 703 through 711, inclusive, of this Thirty-First Supplemental Indenture shall apply to the Series 2022D Subordinate Bonds.

Section 703. Events of Default.

Each of the following events shall be a Series 2022D Subordinate Bond Event of Default:

(a) Default in the due and punctual payment of the principal of or premium, if any, on any Series 2022D Subordinate Bond (whether at maturity or call for redemption);

(b) Default in the due and punctual payment of the interest on any Series 2022D Subordinate Bond;

(c) Failure of the Authority to make the deposits required by subsection (e) or subsection (f) of Section 604 of the Master Indenture at the time and in the amount required from Net Revenues available for such deposit under the Indenture; or

(d) Failure of the Trustee to apply moneys in accordance with the penultimate paragraph of Section 906 of the Master Indenture.

Section 704. Remedies of Series 2022D Subordinate Bondholders.

Upon the occurrence and continuation of a Series 2022D Subordinate Bond Event of Default, the Trustee may, and if requested by the holders of not less than 25% in aggregate principal amount of outstanding Series 2022D Subordinate Bonds and if indemnified to its reasonable satisfaction, shall proceed to protect and enforce their rights by mandamus or other suit, action or proceeding at law or in equity, including an action for specific performance.

No remedy conferred by this Indenture upon or reserved to the Trustee and Series 2022D Subordinate Bondholders is intended to be exclusive of any other remedy, but each such remedy shall be cumulative and shall be in addition to any other remedy given to the Trustee and Series 2022D Subordinate Bondholders hereunder or now or hereafter existing at law, in equity or by statute.

No delay or omission to exercise any right or power accruing upon any default or Series 2022D Subordinate Bond Event of Default shall impair any such right or power or shall be construed to be a waiver of any such default or Series 2022D Subordinate Bond Event of Default or acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient.

No waiver of any default or Series 2022D Subordinate Bond Event of Default hereunder by the Trustee or Series 2022D Subordinate Bondholders shall extend to or shall affect any subsequent Series 2022D Subordinate Bond Event of Default or shall impair any rights or remedies consequent thereon.

Section 705. Right of Series 2022D Subordinate Bondholders to Direct Proceedings.

The holders of a majority in aggregate principal amount of Series 2022D Subordinate Bonds then outstanding shall have the right, at any time, by an instrument or instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all proceedings to be taken in connection with the enforcement of the terms and conditions of this Thirty-First Supplemental Indenture or any other proceedings hereunder; provided, however, that the Trustee is provided indemnity satisfactory to it and such direction shall not be otherwise than in accordance with the provisions of law and of the Indenture.

Section 706. Application of Moneys.

All moneys received by the Trustee pursuant to any right given or action taken under the provisions of this Article shall, after payment of the cost and expenses of the proceedings resulting in the collection of such moneys, the outstanding fees, expenses, liabilities and advances incurred or reasonably anticipated to be made by the Trustee, and the fees and the expenses of the Authority in carrying out this Thirty-First Supplemental Indenture, be deposited in the Series 2022D Subordinate Bonds Interest Subaccount or the Series 2022D Subordinate Bonds Principal Subaccount, as the case may be, and applied as follows and for no other purpose:

- (a) All such moneys shall be applied:

First - To the payment to the persons entitled thereto of all installments of interest then due on the Series 2022D Subordinate Bonds, in the order of the maturity of the installments of such interest and, if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Series 2022D Subordinate Bonds; and

Second - To the payment to the persons entitled thereto of the unpaid principal of and premium, if any, on any of the Series 2022D Subordinate Bonds which shall have become due (other than Series 2022D Subordinate Bonds called for redemption for the payment of which moneys are held pursuant to the provisions of the Indenture), in the order of their due dates, and, if the amount available shall not be sufficient to pay in full Series 2022D Subordinate Bonds due on any particular date, then to the payment of such principal and premium, if any, ratably, according to the amount of such principal due on such date, to the persons entitled thereto, without any discrimination or preference.

(b) Whenever moneys are to be applied pursuant to the provisions of this Section, such moneys shall be applied at such times and from time to time as the Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Trustee shall apply such moneys, it shall fix the date (which shall be an Interest Payment Date unless it shall deem another date more suitable) on which such application is to be made and on such date interest shall cease to accrue on the amounts of principal to be paid. The Trustee shall give such notice as it may deem appropriate of the deposit with it of any such moneys and of the fixing of any such date.

Section 707. Remedies Vested in Trustee.

All rights of action (including the right to file proof of claims) under this Thirty-First Supplemental Indenture or under any of the Series 2022D Subordinate Bonds may be enforced by the Trustee without the possession of any of the Series 2022D Subordinate Bonds or the production thereof in any trial or other proceeding relating thereto and any such suit or proceeding instituted by the Trustee may be brought in its name as Trustee without the necessity of joining as plaintiffs or defendants any Series 2022D Subordinate Bondholders, and any recovery of judgment shall be for the equal benefit of the Series 2022D Subordinate Bondholders.

Section 708. Limitation on Suits.

Except to enforce the rights given under Sections 704 and 705 of this Thirty-First Supplemental Indenture, no Series 2022D Subordinate Bondholder shall have any right to institute any action, suit or proceeding at law or in equity for the enforcement of the Indenture or for the execution of any trust thereof or any other remedy hereunder, unless: (a) a Series 2022D Subordinate Bond Event of Default has occurred and is continuing and the Holders of 25% in aggregate principal amount of Series 2022D Subordinate Bonds then outstanding have made written request to the Trustee and offered it reasonable opportunity either to proceed to exercise the powers hereinbefore granted or to institute such action, suit or proceeding in its own name, (b) such requesting Series 2022D Subordinate Bondholders have offered to the Trustee indemnity as provided in Section 1101(1) of the Master Indenture, (c) the Trustee has thereafter failed or refused to exercise the powers hereinbefore granted, or to institute such action, suit or proceeding in its own name, (d) no direction inconsistent with such written request has been given to the Trustee by the holders of a majority in aggregate principal amount of Series 2022D Subordinate Bonds then outstanding, and (e) notice of such action, suit or proceeding is given to the Trustee; it being understood and intended that no one or more Series 2022D Subordinate Bondholders shall have any right in any manner whatsoever to affect, disturb or prejudice the Indenture by its or their

action or to enforce any rights hereunder except in the manner herein provided, and that all proceedings at law or in equity shall be instituted and maintained in the manner herein provided and for the equal benefit of all Series 2022D Subordinate Bondholders then outstanding. The notification, request and offer of indemnity set forth above, at the option of the Trustee, shall be conditions precedent to the execution of the powers and trusts of this Thirty-First Supplemental Indenture and to any action or cause of action for the enforcement of this Thirty-First Supplemental Indenture or for any other remedy hereunder.

Section 709. Termination of Proceedings.

In case the Trustee shall have proceeded to enforce any right under this Thirty-First Supplemental Indenture and such proceedings shall have been discontinued or abandoned for any reason or shall have been determined adversely to the Trustee, then and in every such case the Authority and the Trustee shall be restored to their former positions and rights hereunder, and all rights, remedies and powers of the Trustee shall continue as if no such proceedings had been taken.

Section 710. Waivers of Events of Default.

Subject to the Indenture (including, without limitation, Section 1101 of the Master Indenture), the Trustee may in its discretion waive any Series 2022D Subordinate Bond Event of Default hereunder or any action taken pursuant to any Series 2022D Subordinate Bond Event of Default, and shall do so at the written request of the holders of: (a) a majority in aggregate principal amount of Series 2022D Subordinate Bonds then outstanding in respect of which default in the payment of principal and/or premium, if any, and/or interest exists, or (b) a majority in aggregate principal amount of Series 2022D Subordinate Bonds then outstanding in the case of any other Series 2022D Subordinate Bond Event of Default; provided, however, that there shall not be waived without the written consent of all then Outstanding Series 2022D Subordinate Bondholders (A) any Series 2022D Subordinate Bond Event of Default in the payment of the principal of any Outstanding Series 2022D Subordinate Bonds (whether at maturity or by mandatory redemption), or (B) any default in the payment when due of the interest on any such Series 2022D Subordinate Bonds unless, prior to such waiver or rescission,

- (i) there shall have been paid or provided for all arrears of interest with interest, to the extent permitted by law, at the rate borne by the Series 2022D Subordinate Bonds on overdue installments of interest, all arrears of principal and premium, if any, and all expenses of the Trustee in connection with such default, and
- (ii) in case of any such waiver or rescission or in the case of any discontinuance, abandonment or adverse determination of any proceeding taken by the Trustee on account of any such default, the Authority, the Trustee, and the Series 2022D Subordinate Bondholders shall be restored to their former positions and rights hereunder respectively.

No such waiver or rescission relating to the Series 2022D Subordinate Bonds shall extend to any subsequent or other default or impair any right consequent thereon.

Section 711. Non-Impairment of Authority's Obligation to Pay Principal, Premium and Interest.

Nothing in this Thirty-First Supplemental Indenture shall, however, affect or impair the obligation of the Authority to pay the principal of, premium, if any, and interest on each of the Series 2022D Subordinate Bonds to the respective Holders thereof at the time and place, from the source and in the manner specified in the Indenture.

**ARTICLE VIII
MISCELLANEOUS**

Section 801. Limitation of Rights.

With the exception of rights herein expressly conferred, nothing expressed or mentioned in or to be implied from this Thirty-First Supplemental Indenture or the Series 2022D Subordinate Bonds is intended or shall be construed to give to any person other than the parties hereto and the Series 2022D Subordinate Bondholders any legal or equitable right, remedy or claim under or in respect to this Thirty-First Supplemental Indenture or any covenants, conditions and agreements herein contained since this Thirty-First Supplemental Indenture and all of the covenants, conditions and agreements hereof are intended to be and are for the sole and exclusive benefit of the parties hereto and the Series 2022D Subordinate Bondholders as herein provided.

Section 802. Severability.

If any provision of this Thirty-First Supplemental Indenture shall be held invalid by any court of competent jurisdiction, such holding shall not invalidate any other provision hereof, and this Thirty-First Supplemental Indenture shall be construed and enforced as if such illegal provision had not been contained herein.

Section 803. Successors and Assigns.

This Thirty-First Supplemental Indenture shall be binding upon, inure to the benefit of and be enforceable by the parties and their respective successors and assigns.

Section 804. Limitations on Liability.

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 of Directors of the Authority or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board of Directors of the Authority nor any officer of the Authority executing the Series 2022D Subordinate Bonds shall be liable personally on the Series 2022D Subordinate Bonds or be subject to any personal liability or accountability by reason of the issuance thereof. No member of the Board of Directors of the Authority or officer, employee, agent or advisor of the Authority shall incur any personal liability with respect to any other action taken by him or her pursuant to this Thirty-First Supplemental Indenture or the Indenture or any other document authorized by the Indenture, provided such member, officer, employee, agent or advisor acts in good faith.

Section 805. Applicable Law.

This Thirty-First Supplemental Indenture shall be governed by the applicable laws of the District of Columbia.

Section 806. Counterparts.

This Thirty-First Supplemental Indenture may be executed in several counterparts, each of which shall be deemed an original and all of which together shall constitute but one and the same instrument.

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IN WITNESS WHEREOF, the Authority and the Trustee have caused this Thirty-First Supplemental Indenture to be executed in their respective corporate names as of the date first above written.

**DISTRICT OF COLUMBIA WATER
AND SEWER AUTHORITY**

By: _____
Matthew T. Brown
Chief Financial Officer and Executive Vice
President, Finance and Procurement

**COMPUTERSHARE TRUST COMPANY, N.A.,
AS TRUSTEE**

By: _____
Its _____

EXHIBIT A

SERIES 2022D SUBORDINATE BOND FORM

Unless this certificate is presented by an authorized representative of The Depository Trust Company, a New York corporation (“DTC”), to the Authority or its agent for registration of transfer, exchange, or payment, and any certificate is registered in the name of Cede & Co., or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), **ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL** inasmuch as the registered owner hereof, Cede & Co., has an interest herein.

REGISTERED NO.
RD-1

REGISTERED
\$ _____

UNITED STATES OF AMERICA

**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

**PUBLIC UTILITY SUBORDINATE LIEN REVENUE AND REVENUE
REFUNDING BOND, SERIES 2022D
(Federally Taxable)**

INTEREST RATE	MATURITY DATE	DATED DATE	CUSIP
_____ %	October 1, 20__	_____, 2022	254845 [____]

REGISTERED OWNER: CEDE & CO.

PRINCIPAL AMOUNT: _____ DOLLARS

The District of Columbia Water and Sewer Authority (the “Authority”), for value received, hereby promises to pay upon surrender hereof at the designated corporate trust office of Computershare Trust Company, N.A., as trustee, or its successor in trust (the “Trustee”), under the Indenture, as hereinafter defined, solely from the sources and as hereinafter provided, to the registered owner hereof, or registered assigns or legal representative, the principal sum stated above on the maturity date stated above, subject to prior redemption as hereinafter provided, and to pay, solely from such sources, interest hereon semiannually on each April 1 and October 1, beginning October 1, 2022, at the annual rate stated above, calculated on the basis of a 360-day year of twelve 30-day months. Interest is payable from the date of this Series 2022D Subordinate Bond (unless payment of interest hereon is in default, in which case this Series 2022D Subordinate Bond shall bear interest from the date to which interest has been paid). Interest is payable by check

or draft mailed to the registered owner hereof at its address as it appears on the fifteenth day of the month preceding each interest payment date on registration books kept by the Trustee; provided, however, that if the Series 2022D Subordinate Bonds, as hereinafter defined, are registered in the name of a securities depository or its nominee as registered owner or at the option of a registered owner of at least \$1,000,000 of Series 2022D Subordinate Bonds, payment will be made by wire transfer to an account within the United States pursuant to the most recent wire instructions received by the Trustee from such registered owner. Principal, premium, if any, and interest are payable in lawful money of the United States of America. Capitalized terms which are not defined herein shall have the meanings set forth in the Indenture.

Notwithstanding any other provision hereof, this Series 2022D Subordinate Bond is subject to book-entry form maintained by The Depository Trust Company (“DTC”), and the payment of principal, premium, if any, and interest, the providing of notices and other matters shall be made as described in the Authority’s Blanket Letter of Representations to DTC.

This Series 2022D Subordinate Bond is one of an issue of \$[Series 2022D par amount] Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable) (the “Series 2022D Subordinate Bonds”), of like date and tenor, except as to number, denomination, rate of interest, privilege of redemption and maturity. The Series 2022D Subordinate Bonds are issued under a Master Indenture of Trust, dated as of April 1, 1998, between the Authority and the Trustee (f.k.a. Norwest Bank, N.A.) (the “Master Indenture”), as amended and supplemented by the Thirty-First Supplemental Indenture of Trust, dated as of _____, 2022, between the Authority and the Trustee (the “Thirty-First Supplemental Indenture”), and as previously amended and supplemented by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture, the Twenty-Ninth Supplemental Indenture and the Thirtieth Supplemental Indenture all as defined in the Thirty-First Supplemental Indenture (the “Indenture”). The Series 2022D Subordinate Bonds are secured under the Indenture as Subordinate Debt by a pledge of Net Revenues subordinate to the pledge that secures Senior Debt and on a parity to the pledge that secures other Subordinate Debt. Reference is hereby made to the Indenture for a description of the provisions, among others, with respect to the nature and extent of the security, the rights, duties and obligations of the Authority and the Trustee, the rights of the holders of the Series 2022D Subordinate Bonds and the terms upon which the Series 2022D Subordinate Bonds are issued and secured.

The Series 2022D Subordinate Bonds and the premium, if any, and the interest thereon are limited obligations of the Authority payable from Net Revenues of the System, subject to the prior payment therefrom of the principal of and interest due and payable on all Senior Debt heretofore and hereafter issued or incurred by the Authority, and from certain other funds and accounts pledged thereto by, and on the terms set forth in, the Indenture. The Series 2022D Subordinate Bonds shall be without recourse to the District of Columbia (the “District”). The Series 2022D Subordinate Bonds shall not be general obligations of the District, 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, and shall not constitute lending of the public credit for private undertakings.

The Series 2022D Subordinate Bonds shall be subject to redemption prior to their stated maturities, at the option of the Authority, on any date prior to October 1, 20__ from any source of available funds, as a whole or in part, at a redemption price equal to the principal amount thereof plus the Make-Whole Premium, if any, plus accrued interest to the date fixed for redemption, all as specified in Section 301(a)(i) of the Thirty-First Supplemental Indenture.

The Series 2022D Subordinate Bonds maturing on or after October 1, 20__ are subject to redemption prior to maturity at the option of the Authority on or after October 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.

The Series 2022D Term Bonds maturing on October 1, 20__ are required to be redeemed prior to maturity on October 1 in years and amounts upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date, as follows:

Year	Amount
------	--------

 † Final Maturity

The Series 2022D Term Bonds maturing on October 1, 20__ are required to be redeemed prior to maturity on October 1 in years and amounts upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date, as follows:

Year	Amount
------	--------

† Final Maturity

The particular maturities of the Series 2022D Subordinate Bonds to be redeemed at the option of the Authority will be selected from such maturities as shall be determined by the Authority, upon advice from Co-Bond Counsel.

If less than all the Series 2022D Subordinate Bonds of a particular maturity shall be called for any optional redemption or mandatory sinking fund redemption: (i) if the Series 2022D Subordinate Bonds are not registered in book entry only form, any redemption of less than all of the Series 2022D Subordinate Bonds will be allocated among the registered owners of such Series 2022D Subordinate Bonds being redeemed as nearly as practicable in proportion to the amounts of the principal amounts of the Series 2022D Subordinate Bonds owned by each registered owner, in authorized denominations, calculated based on the formula: (principal to be redeemed) x (principal amount owned by such owner) / (total principal amount outstanding), and the particular Series 2022D Subordinate Bonds to be redeemed will be determined by the Trustee in any manner as the Trustee in its sole discretion deems fair and appropriate and (ii) if the Series 2022D Subordinate Bonds are in book entry only form and so long as DTC or a successor securities depository is the sole registered owner of the Series 2022D Subordinate Bonds, any redemption of less than all of the Series 2022D Subordinate Bonds will be done in accordance with DTC's procedures in effect at such time. It is the Authority's intent that redemption allocations made by DTC, the DTC Participants or such other intermediaries that may exist between the Authority and the Beneficial Owners be made in accordance with these same proportional provisions; provided, however, the Authority provides no assurance that DTC, the DTC Participants or any other intermediary will allocate redemptions among Beneficial Owners on such a proportional basis.

If any of the Series 2022D Subordinate Bonds or portions thereof are called for redemption, the Trustee shall send notice of the call for redemption, identifying the Series 2022D Subordinate Bonds or portions thereof to be redeemed, not fewer than 30 nor more than 60 days prior to the redemption date, by facsimile, registered or certified mail or overnight express delivery, to the registered owner of each Series 2022D Subordinate Bond; provided, however, the Trustee may send any notice of redemption of Series 2022D Subordinate Bonds not fewer than 20 days prior to the redemption date or such shorter period of time as may be acceptable to the Depository while the Series 2022D Subordinate Bonds are in book-entry form and registered with a Depository. Provided funds for their redemption are on deposit at the place of payment on the redemption date, all Series 2022D Subordinate Bonds or portions thereof so called for redemption shall cease to bear interest on such date, shall no longer be secured by the Indenture and shall not be deemed to be Outstanding under the provisions of the Indenture. If a portion of the Series 2022D Subordinate Bonds shall be called for redemption, a new Series 2022D Subordinate Bond in principal amount equal to the unredeemed portion hereof will be issued to DTC or its nominee upon the surrender hereof, or if the book-entry system is discontinued, to the registered owners of the Series 2022D Subordinate Bonds.

The registered owner of this Series 2022D Subordinate Bond shall have no right to enforce the provisions of the Indenture or to institute action to enforce the covenants therein or to take any action with respect to any Event of Default or Series 2022D Subordinate Bond Event of Default under the Indenture or to institute, appear in or defend any suit or other proceedings with respect thereto, except as provided in the Indenture. Specifically, and without limiting the generality of the foregoing, the Series 2022D Subordinate Bonds, as Subordinate Debt, may not be accelerated if any Senior Debt is outstanding. Modifications or alterations of the Indenture, or of any supplement thereto, may be made only to the extent and in the circumstances permitted by the Indenture.

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 of Directors of the Authority or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board of Directors of the Authority nor any officer of the Authority executing the Series 2022D Subordinate Bonds shall be liable personally on the Series 2022D Subordinate Bonds or be subject to any personal liability or accountability by reason of the issuance thereof. No member of the Board of Directors of the Authority or officer, employee, agent or advisor of the Authority shall incur any personal liability with respect to any other action taken by him or her pursuant to this Series 2022D Subordinate Bond, the Thirty-First Supplemental Indenture or the Indenture or any other document authorized by the Indenture, provided such member, officer, employee, agent or advisor acts in good faith.

The Series 2022D Subordinate Bonds are issuable as registered bonds initially in denominations of \$5,000 and integral multiples thereof. Upon surrender for transfer or exchange of this Series 2022D Subordinate Bond at the principal corporate trust office of the Trustee, together with an assignment duly executed by the registered owner or its duly authorized attorney or legal representative in such form as shall be satisfactory to the Trustee, the Authority shall execute, and the Trustee shall authenticate and deliver in exchange, a new Series 2022D Subordinate Bond or Series 2022D Subordinate Bonds in the manner and subject to the limitations and conditions provided in the Indenture, having an equal aggregate principal amount, in authorized denominations, of the same series, form and maturity, bearing interest at the same rate and registered in the name or names as requested by the then registered owner hereof or its duly authorized attorney or legal representative. Any such exchange shall be at the expense of the Authority, except that the Trustee may charge the person requesting such exchange the amount of any tax or other governmental charge required to be paid with respect thereto.

The Trustee shall treat the registered owner as the person exclusively entitled to payment of principal, premium, if any, and interest and the exercise of all other rights and powers of the owner, except that interest payments shall be made to the person shown as owner on the fifteenth day of the month preceding each interest payment date.

All acts, conditions and things required to happen, exist or be performed precedent to and in the issuance of this Series 2022D Subordinate Bond have happened, exist and have been performed.

This Series 2022D Subordinate Bond shall not become obligatory for any purpose or be entitled to any security or benefit under the Indenture or be valid until the Trustee shall have

executed the Certificate of Authentication appearing hereon and inserted the date of authentication hereon.

IN WITNESS WHEREOF, the DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY has caused this Series 2022D Subordinate Bond to be executed by the manual or facsimile signatures of the Chairman of the Board of Directors, its seal to be affixed hereto or a facsimile to be printed hereon and attested by the manual or facsimile signature of the Secretary to the Authority, and this Series 2022D Subordinate Bond to be dated _____, 2022.

ATTEST:

Secretary to the Authority

Chairman

[SEAL]

CERTIFICATE OF AUTHENTICATION

Date Authenticated: _____

This Series 2022D Subordinate Bond is one of the Series 2022D Subordinate Bonds described in the within mentioned Indenture.

Computershare Trust Company, N.A.,
Trustee

By _____
Authorized Officer or Employee

ASSIGNMENT

FOR VALUE RECEIVED the undersigned hereby sell(s), assign(s) and transfer(s) unto

(please print or typewrite name and address, including zip code, of Transferee)

PLEASE INSERT SOCIAL SECURITY OR OTHER
IDENTIFYING NUMBER OF TRANSFEREE

: :
: :
: :
: :

the within Series 2022D Subordinate Bond and all rights thereunder, hereby irrevocably
constituting _____ and _____ appointing

_____, Attorney, to transfer said Series
2022D Subordinate Bond on the books kept for the registration thereof, with full power of
substitution in the premises.

Dated: _____

Signature Guaranteed

NOTICE: Signature(s) must be guaranteed by an Eligible Guarantor Institution such as a Commercial Institution such as a Commercial Bank, Trust Company, Securities Broker/Dealer, Credit Union, or Savings Association who is a member of a medallion program approved by The Securities Transfer Association, Inc.

NOTICE: The signature above must correspond with the name of the registered owner as it appears on the front of this Series 2022D Subordinate Bond in every particular, without alteration or enlargement or any change whatsoever.

PRELIMINARY OFFICIAL STATEMENT DATED FEBRUARY __, 2022**DRAFT 12/30/2021 FOR BOARD PACKET****NEW ISSUE – BOOK-ENTRY ONLY**

RATINGS: Standard & Poor's: __

Moody's: __

Fitch: __

See "RATINGS" herein

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 2022B/C 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, and (ii) the Series 2022B/C/D Bonds and the interest thereon are exempt from District taxation, except estate, inheritance and gift taxes. Interest on the Series 2022B/C Bonds may be subject to certain federal taxes imposed only on certain corporations. INTEREST ON THE SERIES 2022D BONDS IS NOT EXCLUDED FROM GROSS INCOME FOR FEDERAL INCOME TAX PURPOSES. For a more complete discussion of the tax aspects, see "TAX MATTERS" herein.

[DC Water Logo]

\$(Series B par amount)*
DISTRICT OF COLUMBIA WATER
AND SEWER AUTHORITY
Public Utility Subordinate Lien
Revenue Bonds,
Series 2022B
(Green Bonds)

\$(Series C-1 par amount)*
DISTRICT OF COLUMBIA WATER
AND SEWER AUTHORITY
Public Utility Subordinate Lien
Revenue and Revenue Refunding
Bonds,
Series 2022C-1

\$(Series C-2 par amount)*
DISTRICT OF COLUMBIA WATER
AND SEWER AUTHORITY
Public Utility Subordinate Lien
Revenue Refunding Bonds,
Series 2022C-2

\$(Series D par amount)*
DISTRICT OF COLUMBIA WATER
AND SEWER AUTHORITY
Public Utility Subordinate Lien
Revenue and Revenue Refunding
Bonds,
Series 2022D
(Federally Taxable)

Dated: Date of Delivery**Due: As shown on inside cover**

Authority for Issuance. The Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) (the "Series 2022B Bonds"), the Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1 Bonds (the "Series 2022C-1 Bonds"), the Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 Bonds (the "Series 2022C-2 Bonds" and together with the Series 2022C-1 Bonds, the "Series 2022C Bonds") and the Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable) (the "Series 2022D Bonds" and, together with the Series 2022B Bonds, and the Series 2022C Bonds, the "Series 2022B/C/D 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 Computershare Trust Company, N.A., as trustee (the "Trustee"), as amended and supplemented from time to time, including as amended and supplemented by the Thirtieth Supplemental Indenture of Trust, by and between the Authority and the Trustee, dated the date of issuance and delivery of the Series 2022B Bonds and the Series 2022C Bonds (the "Series 2022B/C Bonds") (the "Thirtieth Supplemental Indenture"), and the Thirty-First Supplemental Indenture of Trust, by and between the Authority and the Trustee, dated the date of issuance and delivery of the Series 2022D Bonds (the "Thirty-First Supplemental Indenture" and, together with the Thirtieth Supplemental Indenture and the Master Indenture, as previously amended and supplemented, the "Indenture").

Use of Proceeds. The proceeds of the Series 2022B 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 2022B Project"), and (ii) the costs of issuing the Series 2022B Bonds. The proceeds of the Series 2022C Bonds will be used to [(i) pay a portion of the costs of certain capital improvements to the System (the "Series 2022C Project"), (ii) refund a portion of the Authority's currently outstanding Commercial Paper Notes (the "CP Notes"), (iii) finance the purchase or provide for the exchange pursuant to an offer to exchange or tender for purchase ("Exchange/Tender Offer") of all or a portion of the Authority's outstanding Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2014C (the "Series 2014C Bonds"), Public Utility Subordinate Lien Revenue Bonds, Series 2015A (Green Bonds) (the "Series 2015A Bonds") and Public Utility Subordinate Lien Revenue Bonds, Series 2015B (the "Series 2015B Bonds" and, collectively with the Series 2014C Bonds and the Series 2015A Bonds, the "Target Bonds") that are tendered for purchase (the "Tendered Bonds") or exchanged (the "Exchanged Bonds") by the holders thereof in response to the Authority's Exchange/Tender Offer, and (iv) pay the costs of issuing the Series 2022C Bonds]. The proceeds of the Series 2022D Bonds will be used to (i) pay a portion of the Authority's share of the Washington Aqueduct's capital improvements and a portion of the costs of certain capital improvements to the System (the "Series 2022D Project"), (ii) advance refund all or a portion of the Authority's outstanding Target Bonds and (iii) pay the costs of issuing the Series 2022D Bonds.

Denominations and Interest. The Series 2022B Bonds, the Series 2022C-1 Bonds and the Series 2022D Bonds will be issued initially in denominations of \$5,000 or any integral multiple thereof. The Series 2022C-2 Bonds will be issued initially in denominations of \$1,000 or any integral multiple thereof. The Series 2022B/C/D Bonds 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 2022B/C/D 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, 2022].

Book-Entry Only. The Series 2022B/C/D 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 2022B/C/D Bonds, the principal of and premium, if any, and interest on the Series 2022B/C/D 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 2022B/C/D Bonds, as more fully described herein. See APPENDIX E – "DTC Book-Entry System and Global Clearance Procedures."

Redemption. The Series 2022B/C/D Bonds are subject to redemption prior to maturity, as more fully described herein. See "THE SERIES 2022B/C/D BONDS – Redemption Provisions."

Security. The Series 2022B/C/D Bonds will be secured by a pledge of Net Revenues that will be subordinate to the pledge of Net Revenues that secures the Outstanding Senior Debt and any other Senior Debt the Authority may issue from time to time in the future, and on a parity with the pledge of Net Revenues that secures the Outstanding Subordinate Debt and any other Subordinate Debt the Authority may issue from time to time in the future, without preference, priority or distinction of any Subordinate Debt over any other Subordinate Debt, all as further described and defined herein. The Series 2022B/C/D Bonds will not be secured by a Debt Service Reserve Fund. See "SECURITY FOR THE SERIES 2022B/C/D BONDS."

Limited Obligation. The Series 2022B/C/D Bonds shall be special, limited obligations of the Authority payable solely from the Net Revenues of the Authority. The Series 2022B/C/D Bonds shall be without recourse to the District of Columbia (the "District"). The Series 2022B/C/D Bonds shall not be general obligations of the District or of the Authority. The Series 2022B/C/D 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 2022B/C/D 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 2022B Project consists of a portion of the DC Clean Rivers Project. Based upon independent assessment of the DC Clean Rivers Project and of the Authority conducted by Vigeo Eiris applying environmental, social and governance criteria, the Authority has designated the Series 2022B Project as a "Green Project" and has designated the Series 2022B Bonds as "Green Bonds."] See "INTRODUCTION – Use of the Series 2022B/C/D Bond Proceeds," "PLAN OF FINANCE" and APPENDIX G – "Opinion of Independent Sustainability Consultant."

* Preliminary; subject to change.

282nd Meeting of the Board of Directors - IX. Consent Items (Joint Use)

The Series 2022B/C/D 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 2022B/C/D Bonds are subject to the approval of Squire Patton Boggs (US) LLP and Bellamy Penn LLC, Co-Bond Counsel to the Authority. Squire Patton Boggs (US) LLP and Bellamy Penn 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 PC, Co-Underwriters' Counsel. It is expected that the Series 2022B/C/D Bonds will be available for delivery through the facilities of DTC in New York, New York on or about [_____, 2022].

GOLDMAN SACHS & CO. LLC

Co-Senior Manager

Barclays

**BofA
Securities**

**FHN
Financial**

Loop Capital

**Mesirow
Financial**

**Morgan
Stanley**

TD Securities

RAMIREZ & CO., INC.

Co-Senior Manager

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: [_____, 2022]

MATURITY SCHEDULE*

**[\$[Series B par amount]*
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue Bonds
Series 2022B
(Green Bonds)**

Serial Bonds*

Maturity (Oct. 1)	Principal Amount	Interest Rate	Yield	CUSIP No.†
		[]%	[]%**	254845 []

Term Bonds*

\$_____ []% Term Bonds, due October 1, 20__, Yield []%** CUSIP 254845 []†

\$_____ []% Term Bonds, due October 1, 20__, Yield []%** CUSIP 254845 []†

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

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* Preliminary; subject to change.

\$[Series C-1 par amount]*
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds,
Series 2022C-1

<u>Serial Bonds*</u>				
<u>Maturity</u> (Oct. 1)	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Yield</u>	<u>CUSIP No.†</u>
		[]%	[]%**	254845 []

\$[Series C-2 par amount]*
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue Refunding Bonds,
Series 2022C-2

<u>Serial Bonds*</u>				
<u>Maturity</u> (Oct. 1)	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Yield</u>	<u>CUSIP No.†</u>
		[]%	[]%**	254845 []

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

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* Preliminary; subject to change.

[\$[Series D par amount]*
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds,
Series 2022D
(Federally Taxable)

Maturity (Oct. 1)	Principal Amount	Interest Rate	Yield	CUSIP No.[†]	ISINs/Common Codes
		[]%	[]%	254845 []	

Serial Bonds*

Term Bonds*

\$ _____ []% Term Bonds, due October 1, 20__, Yield []% CUSIP 254845 [][†]

\$ _____ []% Term Bonds, due October 1, 20__, Yield []% CUSIP 254845 [][†]

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* Preliminary; subject to change.

District of Columbia Water and Sewer Authority
1385 Canal Street, S.E.
Washington, D.C. 20003
(202) 787-2714

www.dcwater.com

Principal Board Members Jurisdiction

Tommy Wells, Chair	<i>District of Columbia</i>
Rachna Butani Bhatt	<i>District of Columbia</i>
David Franco	<i>District of Columbia</i>
Anthony Giancola	<i>District of Columbia</i>
Christopher Herrington	<i>Fairfax County</i>
Floyd Holt	<i>Prince George's County</i>
Tara Jackson	<i>Prince George's County</i>
Fariba Kassiri	<i>Montgomery County</i>
Adam Ortiz	<i>Montgomery County</i>

Alternate Board Members Jurisdiction

Andrea Crooms	<i>Prince George's County</i>
Kendrick Curry	<i>District of Columbia</i>
Ivan Frishberg	<i>District of Columbia</i>
Howard Gibbs	<i>District of Columbia</i>
Adriana Hochberg	<i>Montgomery County</i>
Joe Leonard, Jr.	<i>District of Columbia</i>
Jared McCarthy	<i>Prince George's County</i>
Sarah Motsch	<i>Fairfax County</i>
Jed Ross	<i>District of Columbia</i>
Steven Shofar	<i>Montgomery County</i>

Authority Management

David Gadis	<i>Chief Executive Officer and General Manager</i>
Matthew T. Brown	<i>Chief Financial Officer and Executive Vice President, Finance and Procurement</i>
Kishia Powell	<i>Chief Operating Officer and Executive Vice President</i>
Keith J. Lindsey	<i>Chief of Staff</i>
Marc Battle, Esq.	<i>Chief Legal Officer and Executive Vice President, Legal Affairs</i>
Wayne Griffith	<i>Chief Strategy and Performance Officer and Executive Vice President</i>
Kristen Williams	<i>Chief Communications and Stakeholders Engagement Officer and Executive Vice President</i>
Lisa Stone	<i>Chief People and Inclusion Officer and Executive Vice President, People and Talent</i>

Authority Consultants and Counsel

<i>Co-Bond Counsel</i>	Squire Patton Boggs (US) LLP and Bellamy Penn LLC
<i>Co-Disclosure Counsel</i>	Squire Patton Boggs (US) LLP and Bellamy Penn LLC
<i>Financial Feasibility Consultant</i>	Amawalk Consulting Group LLC
<i>Engineering Feasibility Consultant</i>	[Johnson, Mirmiran, & Thompson, Inc.]
<i>Co-Financial Advisors</i>	PFM Financial Advisors LLC and Sustainable Capital Advisors
<i>Sustainability Consultant</i>	[Vigeo Eiris]

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 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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.

INFORMATION CONCERNING OFFERING RESTRICTIONS IN CERTAIN JURISDICTIONS OUTSIDE THE UNITED STATES

MINIMUM UNIT SALES

THE SERIES 2022D BONDS WILL TRADE AND SETTLE ON A UNIT BASIS (ONE UNIT EQUALING ONE BOND OF \$5,000 PRINCIPAL AMOUNT). FOR ANY SALES MADE OUTSIDE THE UNITED STATES, THE MINIMUM PURCHASE AND TRADING AMOUNT IS 30 UNITS (BEING 30 BONDS IN AN AGGREGATE PRINCIPAL AMOUNT OF \$150,000).

NOTICE TO PROSPECTIVE INVESTORS IN THE EUROPEAN ECONOMIC AREA (“EEA”)

THE SERIES 2022D BONDS ARE NOT INTENDED TO BE OFFERED, SOLD OR OTHERWISE MADE AVAILABLE TO AND SHOULD NOT BE OFFERED, SOLD OR OTHERWISE MADE AVAILABLE TO ANY RETAIL INVESTOR IN THE EUROPEAN ECONOMIC AREA (“EEA”). FOR THESE PURPOSES, A RETAIL INVESTOR MEANS A PERSON WHO IS ONE (OR MORE) OF: (I) A RETAIL CLIENT AS DEFINED IN POINT (11) OF ARTICLE 4(1) OF DIRECTIVE 2014/65/EU (AS AMENDED, “MIFID II”); OR (II) A CUSTOMER WITHIN THE MEANING OF DIRECTIVE (EU) 2016/97 (THE “INSURANCE DISTRIBUTION DIRECTIVE”), WHERE THAT CUSTOMER WOULD NOT QUALIFY AS A PROFESSIONAL CLIENT AS DEFINED IN POINT (10) OF ARTICLE 4(1) OF MIFID II; OR (III) NOT A QUALIFIED INVESTOR AS DEFINED IN REGULATION (EU) 2017/1129 (THE “PROSPECTUS REGULATION”). CONSEQUENTLY, NO KEY INFORMATION DOCUMENT REQUIRED BY REGULATION (EU) NO 1286/2014 (AS AMENDED, THE “PRIIPS REGULATION”) FOR OFFERING OR SELLING THE SERIES 2022D BONDS OR OTHERWISE MAKING THEM AVAILABLE TO RETAIL INVESTORS IN THE EEA HAS BEEN PREPARED AND THEREFORE OFFERING OR SELLING THE SERIES 2022D BONDS OR OTHERWISE MAKING THEM AVAILABLE TO ANY RETAIL INVESTOR IN THE EEA MAY BE UNLAWFUL UNDER THE PRIIPS REGULATION.

THIS OFFICIAL STATEMENT HAS BEEN PREPARED ON THE BASIS THAT ALL OFFERS OF THE SERIES 2022D BONDS TO ANY PERSON THAT IS LOCATED WITHIN A MEMBER STATE OF THE EEA WILL BE MADE PURSUANT TO AN EXEMPTION UNDER ARTICLE 1(4) OF THE PROSPECTUS REGULATION, AS IMPLEMENTED IN MEMBER STATES OF THE EEA, FROM THE REQUIREMENT TO PRODUCE A PROSPECTUS FOR OFFERS OF THE SERIES 2022D BONDS. ACCORDINGLY, ANY PERSON MAKING OR INTENDING TO MAKE ANY OFFER IN THE EEA OF THE SERIES 2022D BONDS SHOULD ONLY DO SO IN CIRCUMSTANCES IN WHICH NO OBLIGATION ARISES FOR THE AUTHORITY OR ANY OF THE UNDERWRITERS TO PROVIDE A PROSPECTUS FOR SUCH OFFER. NEITHER THE AUTHORITY NOR THE UNDERWRITERS HAVE AUTHORIZED, NOR DO THEY AUTHORIZE, THE MAKING OF ANY OFFER OF SERIES 2022D BONDS THROUGH ANY FINANCIAL INTERMEDIARY, OTHER THAN OFFERS MADE BY THE UNDERWRITERS, WHICH CONSTITUTE THE FINAL PLACEMENT OF THE SERIES 2022D BONDS CONTEMPLATED IN THIS OFFICIAL STATEMENT.

THE OFFER OF ANY SERIES 2022D BONDS WHICH IS THE SUBJECT OF THE OFFERING CONTEMPLATED BY THIS OFFICIAL STATEMENT IS NOT BEING MADE AND WILL NOT BE MADE TO THE PUBLIC IN THAT MEMBER STATE, OTHER THAN: (A) TO ANY LEGAL ENTITY WHICH IS A “QUALIFIED INVESTOR” AS SUCH TERM IS DEFINED IN THE PROSPECTUS REGULATION; (B) TO FEWER THAN 150 NATURAL OR LEGAL PERSONS (OTHER THAN “QUALIFIED INVESTORS” AS SUCH TERM IS DEFINED IN THE PROSPECTUS REGULATION), SUBJECT TO OBTAINING THE PRIOR CONSENT OF THE RELEVANT UNDERWRITER OR THE CORPORATION FOR ANY SUCH OFFER OR (C) IN ANY OTHER CIRCUMSTANCES FALLING WITHIN ARTICLE 1(4) OF THE PROSPECTUS REGULATION; PROVIDED THAT NO SUCH OFFER OF THE SERIES 2022D BONDS SHALL REQUIRE THE AUTHORITY OR ANY UNDERWRITER TO PUBLISH A PROSPECTUS PURSUANT TO ARTICLE 3 OF THE PROSPECTUS REGULATION OR A SUPPLEMENT TO A PROSPECTUS PURSUANT TO ARTICLE 23 OF THE PROSPECTUS REGULATION.

FOR THE PURPOSES OF THIS PROVISION, THE EXPRESSION AN “OFFER OF SECURITIES TO THE PUBLIC” IN RELATION TO THE SERIES 2022D BONDS IN ANY MEMBER STATE MEANS THE COMMUNICATION IN ANY FORM AND BY ANY MEANS OF SUFFICIENT INFORMATION ON THE TERMS OF THE OFFER AND THE SERIES 2022D BONDS TO BE OFFERED SO AS TO ENABLE AN INVESTOR TO DECIDE TO PURCHASE OR SUBSCRIBE FOR THE SERIES 2022D BONDS.

EACH SUBSCRIBER FOR OR PURCHASER OF THE SERIES 2022D BONDS IN THE OFFERING LOCATED WITHIN A MEMBER STATE WILL BE DEEMED TO HAVE REPRESENTED, ACKNOWLEDGED AND AGREED THAT IT IS A “QUALIFIED INVESTOR” AS DEFINED IN THE PROSPECTUS REGULATION.

THE AUTHORITY AND EACH UNDERWRITER AND OTHERS WILL RELY ON THE TRUTH AND ACCURACY OF THE FOREGOING REPRESENTATION, ACKNOWLEDGEMENT AND AGREEMENT.

NOTICE TO PROSPECTIVE INVESTORS IN THE UNITED KINGDOM

THIS OFFICIAL STATEMENT HAS NOT BEEN APPROVED FOR THE PURPOSES OF SECTION 21 OF THE FINANCIAL SERVICES AND MARKETS ACT 2000 (“FSMA”) AND DOES NOT CONSTITUTE AN OFFER TO THE PUBLIC IN ACCORDANCE WITH THE PROVISIONS OF SECTION 85 OF THE FSMA. IT IS FOR DISTRIBUTION ONLY TO, AND IS DIRECTED SOLELY AT, PERSONS WHO (I) ARE OUTSIDE OF THE UNITED KINGDOM (II) ARE INVESTMENT PROFESSIONALS, AS SUCH TERM IS DEFINED IN ARTICLE 19(5) OF THE FINANCIAL SERVICES AND MARKETS ACT 2000 (FINANCIAL PROMOTION) ORDER 2005, AS AMENDED (THE “FINANCIAL PROMOTION ORDER”), (III) ARE PERSONS FALLING WITHIN ARTICLE 49(2)(A) TO (D) OF THE FINANCIAL PROMOTION ORDER OR (IV) ARE PERSONS TO WHOM AN INVITATION OR INDUCEMENT TO ENGAGE IN INVESTMENT ACTIVITY (WITHIN THE MEANING OF SECTION 21 OF THE FSMA) IN CONNECTION WITH THE ISSUE OR SALE OF ANY SERIES 2022D BONDS MAY OTHERWISE BE LAWFULLY COMMUNICATED OR CAUSED TO BE COMMUNICATED (ALL SUCH PERSONS TOGETHER BEING REFERRED TO AS “RELEVANT PERSONS”). THIS OFFICIAL STATEMENT IS DIRECTED ONLY AT RELEVANT PERSONS AND MUST NOT BE ACTED ON OR RELIED ON BY PERSONS WHO ARE NOT RELEVANT PERSONS. ANY INVESTMENT OR INVESTMENT ACTIVITY TO WHICH THIS OFFICIAL STATEMENT RELATES IS AVAILABLE ONLY TO RELEVANT PERSONS AND WILL BE ENGAGED IN ONLY WITH RELEVANT PERSONS. ANY PERSON WHO IS NOT A RELEVANT PERSON SHOULD NOT ACT OR RELY ON THIS OFFICIAL STATEMENT OR ANY OF ITS CONTENTS.

NOTICE TO PROSPECTIVE INVESTORS IN HONG KONG

THE CONTENTS OF THIS OFFICIAL STATEMENT HAVE NOT BEEN REVIEWED BY ANY REGULATORY AUTHORITY IN HONG KONG. YOU ARE ADVISED TO EXERCISE CAUTION IN RELATION TO THE OFFER OF THE SERIES 2022D BONDS. IF YOU ARE IN ANY DOUBT ABOUT ANY OF THE CONTENTS OF THIS OFFICIAL STATEMENT, YOU SHOULD OBTAIN INDEPENDENT PROFESSIONAL ADVICE.

THIS OFFICIAL STATEMENT HAS NOT BEEN, AND WILL NOT BE, REGISTERED AS A PROSPECTUS (AS DEFINED IN THE COMPANIES (WINDING UP AND MISCELLANEOUS PROVISIONS) ORDINANCE (CHAPTER 32 OF THE LAWS OF HONG KONG) (THE “C(WUMP)O”)) IN HONG KONG NOR HAS IT BEEN APPROVED BY THE SECURITIES AND FUTURES COMMISSION OF HONG KONG PURSUANT TO THE SECURITIES AND FUTURES ORDINANCE (CHAPTER 571 OF THE LAWS OF HONG KONG) (“SFO”). ACCORDINGLY, THE SERIES 2022D BONDS MAY NOT BE OFFERED OR SOLD IN HONG KONG BY MEANS OF THIS OFFICIAL STATEMENT OR ANY OTHER DOCUMENT, AND THIS OFFICIAL STATEMENT MUST NOT BE ISSUED, CIRCULATED OR DISTRIBUTED IN HONG KONG, OTHER THAN (A) TO ‘PROFESSIONAL INVESTORS’ AS DEFINED IN THE SFO AND ANY RULES MADE UNDER THE SFO OR (B) IN OTHER CIRCUMSTANCES WHICH DO NOT RESULT IN THE DOCUMENT BEING A “PROSPECTUS” AS DEFINED IN THE C(WUMP)O OR WHICH DO NOT CONSTITUTE AN OFFER TO THE PUBLIC WITHIN THE MEANING OF THE C(WUMP)O. IN ADDITION, NO PERSON MAY ISSUE OR HAVE IN ITS POSSESSION FOR THE PURPOSES OF ISSUE, WHETHER IN HONG KONG OR ELSEWHERE, ANY ADVERTISEMENT, INVITATION OR DOCUMENT RELATING TO THE SERIES 2022D BONDS, WHICH IS DIRECTED AT, OR THE CONTENTS OF WHICH ARE LIKELY TO BE ACCESSED OR READ BY, THE PUBLIC OF HONG KONG (EXCEPT IF PERMITTED TO DO SO UNDER THE SECURITIES LAWS OF HONG KONG) OTHER THAN WITH RESPECT TO SERIES 2022D BONDS WHICH ARE OR ARE INTENDED TO BE DISPOSED OF ONLY (A) TO PERSONS OUTSIDE HONG KONG, (B) TO ‘PROFESSIONAL INVESTORS’ AS DEFINED IN THE SFO AND ANY RULES MADE UNDER THE SFO.

NOTICE TO PROSPECTIVE INVESTORS IN JAPAN

THE BONDS HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE FINANCIAL INSTRUMENTS AND EXCHANGE ACT OF JAPAN (ACT NO. 25 OF 1948, AS AMENDED, THE “FIEA”). NEITHER THE BONDS NOR ANY INTEREST THEREIN MAY BE OFFERED OR SOLD, DIRECTLY OR INDIRECTLY, IN JAPAN OR TO, OR FOR THE BENEFIT OF, ANY RESIDENT OF JAPAN (AS DEFINED UNDER ITEM 5, PARAGRAPH 1, ARTICLE 6 OF THE FOREIGN EXCHANGE AND FOREIGN TRADE ACT (ACT NO. 228 OF 1949, AS AMENDED)), OR TO OTHERS FOR RE-OFFERING OR RESALE, DIRECTLY OR INDIRECTLY, IN JAPAN OR TO, OR FOR THE BENEFIT OF, ANY RESIDENT OF JAPAN, EXCEPT PURSUANT TO AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF, AND OTHERWISE IN COMPLIANCE WITH, THE FIEA AND ANY OTHER APPLICABLE LAWS, REGULATIONS AND MINISTERIAL GUIDELINES OF JAPAN.

THE PRIMARY OFFERING OF THE BONDS AND THE SOLICITATION OF AN OFFER FOR ACQUISITION THEREOF HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER PARAGRAPH 1, ARTICLE 4 OF THE FIEA. AS IT IS A PRIMARY OFFERING, IN JAPAN, THE BONDS MAY ONLY BE OFFERED, SOLD, RESOLD OR OTHERWISE TRANSFERRED, DIRECTLY OR INDIRECTLY TO, OR FOR

THE BENEFIT OF CERTAIN QUALIFIED INSTITUTIONAL INVESTORS AS DEFINED IN THE FIEA (“QIIs”) IN RELIANCE ON THE QIIs-ONLY PRIVATE PLACEMENT EXEMPTION AS SET FORTH IN ITEM 2(I), PARAGRAPH 3, ARTICLE 2 OF THE FIEA. A QII WHO PURCHASED OR OTHERWISE OBTAINED THE BONDS CANNOT RESELL OR OTHERWISE TRANSFER THE BONDS IN JAPAN TO ANY PERSON EXCEPT ANOTHER QII.

NOTICE TO PROSPECTIVE INVESTORS IN TAIWAN

THE OFFER OF THE BONDS HAS NOT BEEN AND WILL NOT BE REGISTERED OR FILED WITH, OR APPROVED BY, THE FINANCIAL SUPERVISORY COMMISSION OF TAIWAN AND/OR OTHER REGULATORY AUTHORITY OF TAIWAN PURSUANT TO RELEVANT SECURITIES LAWS AND REGULATIONS, AND THE BONDS MAY NOT BE OFFERED, ISSUED OR SOLD IN TAIWAN THROUGH A PUBLIC OFFERING OR IN CIRCUMSTANCES WHICH CONSTITUTE AN OFFER WITHIN THE MEANING OF THE SECURITIES AND EXCHANGE ACT OF TAIWAN THAT REQUIRES THE REGISTRATION OR FILING WITH OR APPROVAL OF THE FINANCIAL SUPERVISORY COMMISSION OF TAIWAN. THE BONDS MAY BE MADE AVAILABLE OUTSIDE TAIWAN FOR PURCHASE BY INVESTORS RESIDING IN TAIWAN (EITHER DIRECTLY OR THROUGH PROPERLY LICENSED TAIWAN INTERMEDIARIES), BUT MAY NOT BE OFFERED OR SOLD IN TAIWAN EXCEPT TO QUALIFIED INVESTORS VIA A TAIWAN LICENSED INTERMEDIARY. ANY SUBSCRIPTIONS OF BONDS SHALL ONLY BECOME EFFECTIVE UPON ACCEPTANCE BY THE ISSUER OR THE RELEVANT DEALER OUTSIDE TAIWAN AND SHALL BE DEEMED A CONTRACT ENTERED INTO IN THE JURISDICTION OF INCORPORATION OF THE ISSUER OR RELEVANT DEALER, AS THE CASE MAY BE, UNLESS OTHERWISE SPECIFIED IN THE SUBSCRIPTION DOCUMENTS RELATING TO THE BONDS SIGNED BY THE INVESTORS.

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 ___, 2022]

OFFICIAL STATEMENT

<p> \$[Series B par amount]* DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) </p>	<p> \$[Series C-1 par amount]* DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1 </p>	<p> \$[Series C-2 par amount]* DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 </p>	<p> \$[Series D par amount]* DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable) </p>
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INTRODUCTION

General

This Official Statement, including the cover page and the appendices hereto (the “Official Statement”), is provided in connection with: (a) the issuance by the District of Columbia Water and Sewer Authority (the “Authority,” also commonly referred to as “DC Water”) of its Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds), in the original principal amount of \$[Series B par amount]* (the “Series 2022B Bonds”), its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1 Bonds (the “Series 2022C-1 Bonds”), its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 Bonds (the “Series 2022C-2 Bonds” and together with the Series 2022C-1 Bonds, the “Series 2022C Bonds”) and its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable), in the original principal amount of \$[Series D par amount]* (the “Series 2022D Bonds” and the Series 2022B Bonds and Series 2022C Bonds, each a “Series” and, together, the “Series 2022B/C/D Bonds”); and (b) the Invitation to Tender or Exchange Bonds, dated _____, 2022 (the “Invitation to Tender” or “Exchange/Tender Offer”), of the Authority, inviting holders of certain bonds of the Authority which are described under the caption “PLAN OF FINANCE” to tender such bonds for purchase by the Authority or to exchange such bonds for Series 2022C-2 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 2022B/C/D 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 2022B/C/D Bonds (the “Indenture”), including by the Thirtieth Supplemental Indenture of Trust, to be dated the date of issuance and delivery of the Series 2022B Bonds and the Series 2022C Bonds (the “Series 2022B/C Bonds”) (the “Thirtieth Supplemental Indenture”) and the Thirty-First Supplemental Indenture of Trust, to be dated the date of issuance and delivery of the Series 2022D Bonds (the “Thirty-First Supplemental Indenture”) each by and between the Authority and Computershare Trust Company, N.A., as trustee (the “Trustee”). The Series 2022B/C Bonds are also being issued pursuant to a resolution of the Authority’s Board of Directors passed at its January 6, 2022 meeting authorizing the issuance of the Series 2022B/C/D Bonds.

The Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E (the “Series 2022E Subordinate Bonds”) are expected to be issued on or about the same date as the Series 2022B/C/D Bonds pursuant to the Indenture as supplemented by the Thirty-Second Supplemental Indenture of Trust, to be dated the date of issuance and delivery of the Series 2022E Subordinate Bonds (the “Thirty-Second Supplemental Indenture”) in an amount not to exceed \$100,000,000.

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;

* Preliminary; subject to change.

87 Stat 774; 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 2022B/C/D 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 2022B/C/D Bonds. The Authority makes no representation as to the accuracy or completeness of information derived from other sources.

Recent Developments

Blueprint 2.0 (Strategic Plan)

The Authority has released Blueprint 2.0, a new enterprise-wide strategic plan designed to guide the Authority over the next five years and beyond. Blueprint 2.0 sets out five Organizational Imperatives, which are defined outcomes essential to achieving strategic goals over the next five years and beyond. The Imperatives have been developed through engagement with a cross section of key stakeholders and are used to frame strategy and address upcoming challenges. The Blueprint 2.0 imperatives are (1) consumer health, safety and wellness, (2) service reliability, (3) system resiliency, (4) environmental sustainability and (5) equity.

New Financial Policies

The Board of Directors approved a new “Statement of Financial Policies” on October 7, 2021 that strengthen debt service coverage and liquidity requirements. The new policies established a combined coverage requirement of 1.6x. This exceeds the Trust Indenture requirements of 1.2x for senior coverage and 1.0x for subordinate coverage and the previous policy that required 1.4x coverage for senior debt. The policies also increase liquidity requirements by increasing the days of cash on hand from \$125.5 million, or 120 days, to 250 days. This requirement must be met with the Renewal and Replacement Fund, the Operating Reserve Fund, and additional cash. Funds in the Rate Stabilization Fund cannot be used to meet this requirement. Per the new policy, these requirements must be met in the in the budget and in all ten years of the financial plan. To meet the new days of cash requirement, on November 4, 2021 the Board of Directors authorized the transfer of \$41.6 million from the Rate Stabilization Fund to the operating cash reserves to meet the 250 days of cash requirement. The December 31, 2021 balance of the Rate Stabilization Fund is \$46.4 million. Those funds may be applied by the Board of Directors in accordance with the Rate Stabilization Fund policy. For more information see “FINANCIAL OPERATIONS – Financial Policies.”

Environmental, Social, and Governance (ESG) Report

The Authority has released its first Environmental, Social, and Governance (ESG) Report that builds on the Authority’s previous work in consideration of factors in the natural world and activities that impact stakeholders, to the Authority’s commitment in operating under a resilient and fair governance framework. Operating one of the country’s largest water and wastewater utilities responsibly and efficiently relies on the awareness and prioritization of ESG matters. The Authority’s ESG ambitions are aligned with the imperatives developed under Blueprint 2.0.

The Authority is believed to be the first municipal water utility in the United States to issue an ESG Report of this kind, and the complete document can be found at <https://www.dcwater.com/esg-reporting>. This reference to the Authority’s website is for information purposes only, neither the website nor the information contained on the website shall be deemed incorporated herein by reference. The Authority is not obligated to continue to provide information found on its website.

Green Bond Framework

On October 7, 2021 the Board issued a Green Bond Framework to formalize the process and commitments that govern the Authority’s issuance of Green Bonds. The Green Bond Framework governs the use of Green Bond proceeds, project selection and evaluation processes, management of Green Bond proceeds and disclosure. At the time of issuance of a Green Bond, the Authority’s policy is to seek an independent Second Party Opinion on the sustainability of the Green Bond to be issued. See “INDEPENDENT SUSTAINABILITY CONSULTANT OPINION LETTER.”

Lead Removal Initiative

The Lead Free DC Initiative aims to replace more than 28,000 service lines with lead or galvanized-iron pipe by 2030. The Authority developed a model to use water quality and health equity data to prioritize lead service line replacement projects. This approach prioritizes lead replacement for: (1) vulnerable populations most impacted by lead exposure (children and seniors) and (2) communities that are historically underserved, and experience disproportionately poorer health outcomes compared with other parts of the District. The model scores and ranks blocks according to the health benefit and social impact of lead service line replacement so that projects can be funded and executed equitably.

Use of the Series 2022B/C/D Bond Proceeds

The proceeds of the Series 2022B Bonds will be used to pay (i) a portion of the costs of the DC Clean Rivers Project (as defined herein)] (the “Series 2022B Project”) and (ii) the costs of issuing the Series 2022B 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 2022B Project as a “Green Project” and the Series 2022B Bonds as “Green Bonds” based on, among other things, an independent assessment by Vigeo Eiris (“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 2022B Bonds is entitled to any additional security other than as provided in the Indenture. For a description of Vigeo’s assessment process, see APPENDIX G – “Opinion of Independent Sustainability Consultant.”

The proceeds of the Series 2022B Bonds to be used to pay the costs of the Series 2022B Project will be deposited in a segregated account of the Construction Fund established and maintained under the Indenture (the “2022B 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 2022C Bonds will be used to (i) pay the costs of certain capital improvements to the System (the “Series 2022C Project”) (ii) refund a portion of the Authority’s currently outstanding Commercial Paper Notes (the “CP Notes”); (iii) finance the purchase or provide for the exchange pursuant to an offer to exchange or tender for purchase (“Exchange/Tender Offer”) of all or a portion of the Authority’s outstanding Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2014C (the “Series 2014C Bonds”), Public Utility Subordinate Lien Revenue Bonds, Series 2015A (Green Bonds) (the “Series 2015A Bonds”) and Public Utility Subordinate Lien Revenue Bonds, Series 2015B (the “Series 2015B Bonds”) and, collectively with the Series 2014C Bonds and the Series 2015A Bonds, the “Target Bonds”) that are tendered for purchase (the “Tendered Bonds”) or exchanged (the “Exchanged Bonds”) by the holders thereof in response to the Authority’s Exchange/Tender Offer, and (iv) pay the costs of issuing the Series 2022C Bonds.

The proceeds of the Series 2022C Bonds to be used to pay the costs of the Series 2022C Project will be deposited in a segregated account of the Construction Fund established and maintained under the Indenture (the “2022C Construction Account”). Such proceeds will be invested in Permitted Investments pursuant to the Indenture. See “PLAN OF FINANCE” and “CAPITAL IMPROVEMENT PROGRAM.”

The proceeds of the Series 2022D Bonds will be used to (i) pay a portion of the Authority’s share of the Washington Aqueduct’s capital improvements and a portion of the costs of certain capital improvements to the System (the “Series 2022D Project”), (ii) advance refund all or a portion of the Authority’s outstanding Target Bonds, and (iii) pay costs of issuing the Series 2022D Bonds. See “PLAN OF FINANCE.”

Security and Source of Payment

Under the Indenture, the Authority may issue “Senior Debt” and “Subordinate Debt” from time to time. The Series 2022B/C/D Bonds will constitute Subordinate Debt under the Indenture. The Series 2022B/C/D Bonds will be secured by a lien on and a pledge of Net Revenues that is subordinate to the pledge of Net Revenues that secures the Outstanding Senior Debt and any other Senior Debt the Authority may issue from time to time in the future, and on a parity with the pledge of Net Revenues that secures the Outstanding Subordinate Debt and any other Subordinate Debt the Authority may issue from time to time in the future, without preference, priority or distinction of any Subordinate Debt over any other Subordinate Debt.

Prior to the issuance of the Series 2022B/C/D Bonds, \$999,080,000 on aggregate principal amount of Senior Debt and \$2,473,215,325 aggregate principal amount of Subordinate Debt will be outstanding. See “OUTSTANDING INDEBTEDNESS.”

The Series 2022B/C/D 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 “SECURITY FOR THE SERIES 2022B/C/D BONDS – Lien and Pledge of the Master Indenture” and “RATES AND CHARGES.” The Series 2022B/C/D Bonds will not be secured by a Debt Service Reserve Fund.

The Series 2022B/C/D Bonds shall be special and limited obligations of the Authority. The Series 2022B/C/D Bonds shall be without recourse to the District. The Series 2022B/C/D Bonds shall not be general obligations of the District or of the Authority. The Series 2022B/C/D 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 2022B/C/D 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.

Concurrent Issuance of Bonds by the Authority

Concurrently with the issuance of the Series 2022B/C/D Bonds, the Authority expects to issue the Series 2022E Subordinate Bonds, in an amount not to exceed \$[100] million pursuant to the Indenture, as supplemented by the Thirty-Second Supplemental Indenture. The Series 2022E Subordinate Bonds are expected to finance certain Costs of the System and pay certain costs of issuance. The Authority expects that the Series 2022E Subordinate Bonds will initially bear interest at a Long-Term Rate as defined in the Thirty-Second Supplemental Indenture. The Series 2022E Subordinate Bonds will be secured by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, the Series 2022B/C/D Bonds and other Subordinate Debt that the Authority may issue from time to time in the future. The issuance of the Series 2022E Subordinate Bonds is not dependent upon the Authority’s issuance of the Series 2022B/C/D Bonds, and the Series 2022B/C/D Bonds will be sold separately and independently from the Series 2022E Subordinate Bonds.

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 2022B/C/D 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 2022B/C/D 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 \$6.41 billion on a cash disbursement basis. The Board approved the CIP on April 1, 2021. See “CAPITAL IMPROVEMENT PROGRAM.”

Miscellaneous

This Official Statement contains brief descriptions of the Series 2022B/C/D 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 2022B/C/D 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 2022B/C/D Bonds.

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

COVID-19 IMPACT, RESPONSE AND RISK FACTORS

The District has been severely affected by the outbreak of a novel strain of coronavirus that can result in a severe respiratory disease, referred to as COVID-19. The outbreak of COVID-19 has altered the behavior of businesses and people in a manner that has had negative effects on the District and its economy. The extent to which those effects will continue cannot be predicted at this time. The Authority's provision of retail water and wastewater services and wholesale wastewater conveyance have not been affected by the outbreak of the COVID-19 pandemic. However, the outbreak has negatively affected, and is projected to continue to negatively affect, retail water and wastewater revenues. For additional information on projected revenues, see "FINANCIAL OPERATIONS – System Revenues."

The Authority's Response

In response to the COVID-19 pandemic, the Authority implemented policies, such as suspending disconnections for non-payment, reconnecting disconnected customers, providing payment plans and working with the District government to expand financial assistance for customers. The Authority took proactive steps to curtail spending, prioritize critical and COVID-related expenditures and achieve budget savings. The Authority reduced reliance on consultants, prioritized critical repair and maintenance work for sewer and water infrastructure and Authority-wide travel and training. The Authority is only hiring for positions deemed critical for the duration of the pandemic. Certain personnel contracts were also terminated or not extended to ensure available funding for the most important operational functions of the Authority.

Customer Assistance Programs

The Authority joined the District government in assisting customers who were impacted by the COVID-19 pandemic. The Public Emergency Extension and Eviction and Utility Moratorium Phasing Temporary Amendment Act of 2021 ("Temporary Moratorium") effective, October 27, 2021, will remain effective until it expires June 22, 2022. Under the Temporary Moratorium, qualified customers may avoid service disconnections and establish payment plans and terms for restoration. The Authority also suspended the recordation of liens in 2021.

Also in early 2021, the Board approved the Emergency Residential Relief Program and the Multi-Family Assistance Program, which supplement assistance for eligible households in single family homes and multi-family buildings respectively who have delinquent bills during the pandemic. The programs provide up to \$2,000 to help a customer eliminate their past due balance, provided they are income eligible. The District government funds an additional emergency assistance program whereby income eligible households are eligible for an additional \$2,000 in assistance.

Maintaining Continuity of Operations

The Authority provides employees flexibility to work remotely while maintaining the integrity and productivity of the Authority's operations. Critical operations staff work as separated teams to ensure the continuity of operations. The Authority uses staggered shifts and additional muster stations for staff responsible for system upgrades and maintenance. Employees in the office or in the field are provided with personal protective equipment.

Face coverings are required inside all Authority facilities, outside at all Authority worksites and while traveling in Authority vehicles. Inside residential work is restricted to emergencies with employees utilizing full personal protective equipment.

Financial Impact

Budget. The Authority took several actions through the first two years of the COVID-19 pandemic to align expenditures with anticipated revenues to include hiring critical positions, instituting spending restrictions and reducing contract costs to only necessary work, purchasing all necessary PPE equipment (i.e. protective masks, hand sanitizer, plastic gloves, etc.) to protect employees in the field and in the offices, and performing preventive maintenance on all equipment and assets in compliance with all regulatory and permit requirements. At the end of fiscal year 2021, total operating expenditures were \$51.1 million below budget. The Authority reported that fiscal year 2021 revenues (through September 30, 2021), on a cash basis, were \$710.0 million, \$24.2 million below the budget of \$733.7 million as a result of a decline in consumption and a growth in delinquencies. The Authority had previously estimated that the shortfall could be as high as \$45.1 million below budget [but ended with a surplus of approximately \$27 million compared to budget]. Revenues are improving in fiscal year 2022, which began on October 1, 2021. [In the first quarter, revenues were ____ as compared to the budget of \$_____ million.]

Collections. The Authority measures “90-Day delinquencies”, as amounts not paid 90 days after the billing date. As a result of the pandemic, new delinquencies of 90 days or longer increased from \$12.0 million in February 2020 to \$27.2 million as of November 30, 2021. At the end of September 30, 2021 the Authority reported an allowance for doubtful accounts of \$29.0 million, an increase over the \$24.4 million at the end of September 20, 2020. The allowance is calculated by applying historical collection rates against balances. For residential, non-residential (commercial) and multi-family accounts it is estimated that 0% will be collected that is 731 days and older than the bill date, 31% of balances between 365 and 730 days will be collected, and 93% will be collected that is between 0 and 364 days from the bill date. The Authority assumes that 99% of municipal and housing authority bills will be collected and 100% of federal bills will be collected. As of November 30, 2021, 2,420 customers had active payment plans. There are 2,083 residential, 132 non-residential (commercial) and 205 multi-family customer payment plans. For further information regarding collections, see “CUSTOMER BASE, RATES AND CHARGES – Collections.”

Capital Improvement Program. The Authority temporary delayed approximately \$170 million in capital projects and entered into a purchase agreement to refinance approximately \$300 million in outstanding indebtedness. The Authority received approximately \$30 million from the District for lead removal as a result of federal assistance.

Risk Factors Related to the COVID-19 Pandemic

There can be no assurance concerning the COVID-19 pandemic’s full effect on the finances or operations of the Authority. The Authority cannot predict (i) the duration or extent of the COVID-19 pandemic; (ii) the implementation, duration, or expansion of governmental restrictions; (iii) what effect any pandemic-related restrictions or warnings may have on the economy, the District or the Authority; (iv) whether and to what extent the COVID-19 pandemic may disrupt the local or global economy, manufacturing or supply chain, or whether any such disruption may adversely impact the construction of the CIP or other operations; (v) the extent to which the COVID-19 pandemic or other outbreak or pandemic, may result in changes in demand for water, or may have an impact on water customers or suppliers or the water industry, generally; (vi) whether or to what extent the Authority may provide additional deferrals, forbearances, adjustment or other changes to the arrangements with its customers; (vii) whether actions taken by Federal and state and local governments (including the District) to mitigate the impact of the COVID-19 pandemic will have the intended effects; or (viii) whether any of the foregoing may have a material adverse effect on the finances and operations of the Authority.

There can be no assurances that the COVID-19 pandemic and the implementation of restrictions on a local, state and national level will not materially impact the local, state and national economies or the ability of the Authority’s customers to make timely payments for water supply services and accordingly, materially adversely affect an investment in the Series 2022B/C/D Bonds. The Authority is unable to quantify such risk at this time.

THE SERIES 2022B/C/D BONDS

General

The Series 2022B/C/D 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 2022B/C/D 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, 2022] (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 2022B/C/D 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 2022B/C/D Bonds. Individual purchases of interests in the Series 2022B Bonds, the Series 2022C-1 Bonds and the Series 2022D Bonds will be made in book-entry form only, in the principal amount of \$5,000 or any integral multiple thereof. Individual purchases of interests in the Series 2022C-2 Bonds will be made in book-entry form only, in the principal amount of \$1,000 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 2022B/C/D Bonds as nominee of DTC, references herein to the holders or registered owners of the Series 2022B/C/D Bonds will mean Cede & Co. and will not mean the beneficial owners (“Beneficial Owners”) of the Series 2022B/C/D Bonds. Beneficial interests in the Series 2022B/C/D Bonds may be held through DTC directly as a participant or indirectly through organizations that are participants. See APPENDIX E – “DTC Book-Entry System and Global Clearance Procedures.”

As long as the Series 2022B/C/D 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 2022B/C/D Bonds (the “Bondholders”). If the book-entry only system is discontinued, interest on the Series 2022B/C/D 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 2022B/C/D Bonds or (iv) any other action taken by DTC or its partnership nominee as owner of the Series 2022B/C/D Bonds. For more information on DTC and the book-entry only system, see APPENDIX E – “DTC Book-Entry System and Global Clearance Procedures.”

Redemption Provisions*

Series 2022B/C Bonds

Optional Redemption. The Series 2022B/C Bonds maturing on or after [October 1, 2032], are subject to optional redemption prior to maturity on or after [October 1, 2031], 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 2022B Bonds maturing on October 1, 20__ (the “Series 2022B 20__ Term Bonds”) and the Series 2022B Bonds maturing on October 1, 20__ (the “Series 2022B 20__ Term Bonds”) are subject to mandatory sinking fund redemption in part (in accordance with the procedures described below in “– Selection of the Series 2022B/C 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 2022B Bonds called for redemption plus interest accrued to the redemption date.

Series 2022B 20__ Term Bonds

Year

Amount

* Preliminary, subject to change

† Final Maturity

Series 2022B 20__ Term Bonds	
Year	Amount

† Final Maturity

The Series 2022C-1 Bonds maturing on October 1, 20__ (the “Series 2022C-1 20__ Term Bonds”) and the Series 2022C-1 Bonds maturing on October 1, 20__ (the “Series 2022C-1 20__ Term Bonds”) are subject to mandatory sinking fund redemption in part (in accordance with the procedures described below in “– Selection of the Series 2022B/C 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 2022C-1 Bonds called for redemption plus interest accrued to the redemption date.

Series 2022C-1 20__ Term Bonds	
Year	Amount

† Final Maturity

Series 2022C-1 20__ Term Bonds	
Year	Amount

† Final Maturity

The Series 2022C-2 Bonds maturing on October 1, 20__ (the “Series 2022C-2 20__ Term Bonds”) and the Series 2022C-2 Bonds maturing on October 1, 20__ (the “Series 2022C-2 20__ Term Bonds”) are subject to mandatory sinking fund redemption in part (in accordance with the procedures described below in “– Selection of the Series 2022B/C 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 2022C-2 Bonds called for redemption plus interest accrued to the redemption date.

Series 2022C-2 20__ Term Bonds	
Year	Amount

† Final Maturity

Series 2022C-2 20__ Term Bonds	
Year	Amount

† Final Maturity

The principal amount of the Series 2022B/C 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 2022B/C 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 2022B/C 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 2022B/C Bonds, the Trustee shall then credit an amount equal to the principal of such Series 2022B/C Bonds so purchased towards the sinking fund installments for the Series 2022B/C 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 2022B/C Bonds to be Redeemed” below.

Selection of the Series 2022B/C Bonds to be Redeemed. The particular maturities of the Series 2022B/C 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 2022B/C Bond of a maturity is called for prior redemption and if the Series 2022B/C Bonds are registered in book-entry only form and DTC or a successor securities depository is the sole registered owner of such Series 2022B/C Bonds, the particular Series 2022B/C 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 2022B/C Bond to be redeemed shall be in the principal amount of \$5,000 or integral multiples thereof and (ii) in selecting Series 2022B/C Bonds for redemption, each Series 2022B/C Bond shall be considered as representing that number of the Series 2022B/C Bonds that is obtained by dividing the principal amount of such Series 2022B/C Bond by \$5,000.

Series 2022D Bonds

Optional Redemption (Par Call). The Series 2022D Bonds maturing on or after [October 1, 2032], are subject to optional redemption prior to maturity on or after [October 1, 2031], 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.

Optional Redemption (Make-Whole Call). The Series 2022D Bonds are subject to prior redemption by and at the sole option of the Authority, in whole multiples of \$5,000, either in whole or in part (as selected by the Authority) on any date prior to [October 1, 2031], at a redemption price equal to the principal amount thereof plus the Make-Whole Premium (as defined herein), plus accrued interest to the date fixed for redemption.

“Make-Whole Premium” means, with respect to any Series 2022D Bond to be redeemed, an amount calculated by a Designated Institution (as defined herein) equal to the positive difference, if any, between:

- (i) the sum of the present values, calculated as of the date fixed for redemption of:
 - a. each interest payment that, but for the redemption, would have been payable on the Series 2022D Bond or a portion thereof being redeemed on each regularly scheduled Interest Payment Date occurring after the date fixed for redemption through the maturity date of such Series 2022D Bond (excluding any accrued interest for the period prior to the date fixed for redemption); provided that if the date fixed for redemption is not a regularly scheduled Interest Payment Date with respect to such Series 2022D Bond, the amount of the next regularly scheduled interest payment will be reduced by the amount of interest accrued on such Series 2022D Bond to the date fixed for redemption; plus

b. the principal amount that, but for such redemption, would have been payable on the maturity date of the Series 2022D Bond or portion thereof being redeemed; minus

(ii) the principal amount of the Series 2022D Bonds or portion thereof being redeemed.

The present values of the interest and principal payments referred to in (1) above will be determined by discounting the amount of each such interest and principal payment from the date that each such payment would have been payable but for the redemption to the date fixed for redemption on a semiannual basis (assuming a 360-day year consisting of twelve 30-day months) at a discount rate equal to the Comparable Treasury Yield (as defined herein), plus _____ basis points.

“Comparable Treasury Yield” means the yield appearing in the most recently published statistical release designated “H.15(519) Selected Interest Rates” under the heading “Treasury Constant Maturities,” or any successor publication selected by the Designated Banking Institution that is published weekly by the Board of Governors of the Federal Reserve System and that establishes yields on actively traded United States Treasury securities adjusted to constant maturity, for the maturity corresponding to the remaining term to maturity of the Series 2022D Bond being redeemed. The Comparable Treasury Yield will be determined at least two business days but not more than 45 calendar days preceding the applicable date fixed for redemption. If the H.15(519) statistical release sets forth a weekly average yield for United States Treasury securities that have a constant maturity that is the same as the remaining term to maturity of the Series 2022D Bond being redeemed, then the Comparable Treasury Yield will be equal to such weekly average yield. In all other cases, the Comparable Treasury Yield will be calculated by interpolation on a straight-line basis, between the weekly average yields on the United States Treasury securities that have a constant maturity (i) closest to and greater than the remaining term to maturity of the Series 2022D Bond being redeemed; and (ii) closest to and less than the remaining term to maturity of the Series 2022D Bond being redeemed. Any weekly average yields calculated by interpolation will be rounded to the nearest 1/100th of 1%, with any figure of 1/200th of 1% or above being rounded upward.

If, and only if, weekly average yields for United States Treasury securities for the preceding week are not available in the H.15(519) statistical release or any successor publication, then the Comparable Treasury Yield will be the rate of interest per annum equal to the semiannual equivalent yield to maturity of the Comparable Treasury Price (each as defined herein) as of the date fixed for redemption.

“Comparable Treasury Issue” means the United States Treasury selected by the Designated Banking Institution as having a maturity comparable to the remaining term to maturity of the Series 2022D Bond being redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term to maturity of the Series 2022D Bond being redeemed.

“Designated Banking Institution” means an investment banking institution of national standing which is a primary United States government securities dealer in the City of New York designated by the Authority, which may be one of the underwriters of the Series 2022D Bonds.

“Comparable Treasury Price” means, with respect to any date on which a Series 2022D Bond or portion thereof is being redeemed, either (a) the average of five Reference Treasury Dealer quotations for the date fixed for redemption, after excluding the highest and lowest such quotations, and (b) if the Designated Banking Institution is unable to obtain five such quotations, the average of the quotations that are obtained. The quotations will be the average, as determined by the Designated Banking Institution, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of principal amount) quoted in writing to the Designated Banking Institution, at 2:00 p.m. New York City time on a business day at least two business days but no more than 45 calendar days preceding the applicable date fixed for redemption.

“Reference Treasury Dealer” means a primary United States Government securities dealer in the United States appointed by the Authority and reasonably acceptable to the Designated Banking Institution, which may be one of the underwriters of the Series 2022D Bonds.

Mandatory Redemption. The Series 2022D Bonds maturing on October 1, 20__ (the “Series 2022D 20[] Term Bonds”) and the Series 2022D Bonds maturing on October 1, 20__ (the “Series 2022D 20[] Term Bonds,” and together with the Series 2022D 20[] Term Bonds, the “Series 2022D Term Bonds”) are subject to mandatory sinking fund redemption in part (in accordance with the procedures described below in “– Selection of Series 2022D Bonds for Redemption”), prior to maturity on October 1, in the years set forth below, at a redemption price equal to the principal amount of the Series 2022D Bonds called for redemption plus interest accrued to the redemption date.

Series 2022D 20[] Term Bonds

Year	Amount
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† Final Maturity

Series 2022D 20[] Term Bonds

Year	Amount
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† Final Maturity

The principal amount of the Series 2022D Term Bonds required to be redeemed by operation of the mandatory sinking fund schedules set forth above may be reduced by the principal amount of any of the Series 2022D Bonds of the applicable maturity which have been theretofore delivered by the Authority to the Trustee for cancellation, or theretofore redeemed (but not through the operation of the mandatory sinking fund) or purchased or determined to be purchased by the Trustee and which have not theretofore been made the basis of such reduction, as provided in the Indenture (the “mandatory sinking fund credit”).

The particular Series 2022D Bonds to be redeemed will be selected from such maturities as shall be determined by the Authority, upon advice from Co-Bond Counsel.

Selection of Series 2022D Bonds for Redemption. If less than all the Series 2022D Bonds of a particular maturity shall be called for any optional redemption or mandatory sinking fund redemption: (i) if the Series 2022D Bonds are not registered in book entry only form, any redemption of less than all of the Series 2022D Bonds will be allocated among the registered owners of such Series 2022D Bonds being redeemed as nearly as practicable in proportion to the amounts of the principal amounts of the Series 2022D Bonds owned by each registered owner, in authorized denominations, calculated based on the formula: (principal to be redeemed) x (principal amount owned by such owner) / (total principal amount outstanding), and the particular Series 2022D Bonds to be redeemed will be determined by the Trustee in any manner as the Trustee in its sole discretion deems fair and appropriate and (ii) if the Series 2022D Bonds are in book entry only form and so long as DTC or a successor securities depository is the sole registered owner of the Series 2022D Bonds, any redemption of less than all of the Series 2022D Bonds will be done in accordance with DTC’s procedures in effect at such time. It is the Authority’s intent that redemption allocations made by DTC, the DTC Participants or such other intermediaries that may exist between the Authority and the Beneficial Owners be made on a pro rata pass-through distribution of principal basis; provided, however, the Authority provides no assurance that DTC, the DTC Participants or any other intermediary will allocate redemptions among Beneficial Owners on such a proportional basis.

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 2022B/C/D Bonds. If no qualified securities depository is the registered owner of the Series 2022B/C/D Bonds, a notice of redemption shall be mailed to the registered owners of the Series 2022B/C/D Bonds. See “THE SERIES 2022B/C/D BONDS – Book-Entry Only System.”

The Trustee shall send notice of the call for redemption, identifying the Series 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D Bonds, the notice of redemption of the Series 2022B/C/D 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 2022B/C/D 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

[General. The Authority intends through this transaction to fund [certain costs of the System, including but not limited to the Authority's DC Clean Rivers Project and the Authority's share of the capital costs of the Washington Aqueduct], repay a portion of the Authority's currently outstanding CP Notes, and to refinance all or a portion of the Authority's outstanding [Series 2014C Bonds (the "2014C Target Bonds"), Series 2015A Bonds (the "2015A Target Bonds"), and the Series 2015B Bonds (the "2015B Target Bonds"), collectively the "Target Bonds"] via defeasance, purchase and/or exchange.

Invitation to Tender or Exchange. Pursuant to the Exchange/Tender Offer, made by the Authority with the assistance of Goldman Sachs & Co. LLC, as dealer manager (the "Dealer Manager"), all holders of the Target Bonds were invited to tender the Target Bonds for purchase at the respective prices described in the Invitation to Tender, as amended, or, as to sophisticated municipal market professionals or qualified institutional buyers only (collectively, "Qualified Institutional Holders"), to exchange the Target Bonds for Series 2022C-2 Bonds, all subject to certain conditions described in the Invitation to Tender.

Owners of the Target Bonds must review the Exchange/Tender Offer for further information regarding the Authority's offer. The terms of the Exchange/Tender Offer provide that all offers for purchase or exchange must be made on or before _____, 2022 (as such date may be extended, the "Expiration Date"). Immediately following the Expiration Date, the Authority will determine whether to accept the Target Bonds offered for purchase or exchange, and that determination will result in the sizing of the Series 2022C-1 and Series 2022C-2 Bonds. The Authority anticipates that, subject to market conditions, all Target Bonds that are not offered for purchase or exchange may be refunded and defeased from proceeds of the Series 2022C-1 Bonds, as further described below. Notwithstanding the foregoing, the Authority may, from time to time, determine to advance refund a portion of the Authority's other outstanding bonds.

On the date of delivery of the Series 2022C Bonds, the Authority, in accordance with the Exchange/Tender Offer, will (i) purchase the Tendered Bonds which have been offered for tender and which the Authority has accepted for purchase and (ii) exchange the Series 2022C-2 Bonds for the Exchanged Bonds (defined herein) which have been offered for exchange and which the Authority has accepted for exchange. Any accepted tendered Target Bonds for purchase will be funded by the Authority from the proceeds of the Series 2022C-1 Bonds. The Authority will pay accrued interest on the Target Bonds when purchased or exchanged, and the Target Bonds so purchased or exchanged will be cancelled. The Target Bonds to be refunded and purchased, exchanged or defeased are detailed APPENDIX __ - SUMMARY OF THE REFINANCED OBLIGATIONS].

Series 2022B Bonds. Net proceeds of the Series 2022B Bonds will be used to pay the costs of the Series 2022B Project. For a description of the DC Clean Rivers Project (of which the Series 2022B 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 2022B Construction Account. The proceeds therein will be invested in Permitted Investments pursuant to the Indenture. The remainder of the proceeds of the Series 2022B Bonds will be used to pay costs of issuing the Series 2022B Bonds.

Based on the results of an independent assessment by [Vigeo] of the Series 2022B Project's environmental, social, and governance characteristics, the Authority has designated the Series 2022B Project as a "Green Project" and the Series 2022B Bonds as "Green Bonds."* The Authority will report annually on the allocation of proceeds to the Series 2022B Project and on certain environmental and social outcomes of the Series 2022B Project. See "INDEPENDENT SUSTAINABILITY CONSULTANT OPINION LETTER" and APPENDIX G – "Opinion of Independent Sustainability Consultant." See also, "INTRODUCTION – Recent Developments – Environmental, Social and Governance and – Blueprint 2.0" herein.

* The terms "Green Bond" and "Green Project" are not defined in and do not relate to the Indenture, and are used herein for identification purposes only.

Series 2022C-1 Bonds. A portion of the net proceeds of the Series 2022C-1 Bonds will be used to pay the costs of the Series 2022C Project. See “CAPITAL IMPROVEMENT PROGRAM.” Such proceeds will be deposited in the 2022C Construction Account. The proceeds therein will be invested in Permitted Investments pursuant to the Indenture. A portion of the proceeds of the Series 2022C Bonds will be used to refund a portion of the Authority’s currently outstanding CP Notes. Such proceeds will be deposited in the [_____] Account. A portion of the proceeds of the Series 2022C-1 Bonds will be used to finance the purchase pursuant to the Exchange/Tender Offer of the Authority’s outstanding Target Bonds that are tendered for purchase (the “Tendered Bonds”) by the holders thereof and accepted for purchase by the Authority pursuant to the Authority’s Exchange/Tender Offer. A portion of the net proceeds of the Series 2022C Bonds will be used to pay costs of issuing the Series 2022C Bonds.

Series 2022C-2 Bonds. The 2022 C-2 Bonds will be issued in exchange to the holders of the Target Bonds accepted for exchange pursuant to the Exchange/Tender Offer (the “Exchanged Bonds”) and no net proceeds will be generated.

Series 2022D Bonds. A portion of the net proceeds of the Series 2022D Bonds will be used to pay the costs of the Series 2022D Project. See “CAPITAL IMPROVEMENT PROGRAM.” Such proceeds will be deposited in the 2022D Construction Account. The proceeds therein will be invested in Permitted Investments pursuant to the Indenture. A portion of the proceeds of the Series 2022D Bonds, together with other funds of the Authority, will be deposited into an escrow account held by the Trustee pursuant to an Escrow Agreement between the Authority and the Trustee dated as of the date of issuance of the Series 2022D Bonds (such account, the “Series 2022D Escrow Account”), and will be used by the Trustee, in its capacity as escrow trustee, to redeem those certain maturities of the Target Bonds identified as “Defeased Bonds” on the redemption dates and at the redemption prices set forth in the table in Appendix ___ - SUMMARY OF BONDS TO BE REFINANCED. (The sufficiency of the amounts deposited in the Series 2022D Escrow Account for the refunding of the Defeased Bonds will be verified by [_____] , Certified Public Accountants, as verification agent (the “Verification Agent”). See “VERIFICATION OF MATHEMATICAL COMPUTATIONS.”

[The Target Bonds to be refunded and purchased, exchanged or defeased are detailed in Appendix ___ - SUMMARY OF THE REFUNDED OBLIGATIONS].

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SOURCES AND USES OF FUNDS*

The proceeds of the Series 2022B/C/D Bonds are expected to be applied as follows:

	Series 2022B Bonds	Series 2022C-1 Bonds¹	Series 2022D Bonds	Total
Sources of Funds				
Par Amount	[\$Series B par amount].00	[\$Series C par amount].00	[\$Series D par amount].00	\$
Original Issue Premium				
Authority Contribution				
Total Sources				
Uses of Funds				
Deposit to Construction Account				
Deposit to [___] Account to Refund CP Notes				
Deposit to Series 2022D Escrow Account				
Underwriters' Discount				
Other Costs of Issuance				
Total Uses				

¹ The Series 2022C-2 Bonds will be issued in exchange for the Tendered Bonds and therefore no proceeds will be received by the Authority. See "PLAN OF FINANCE – Series 2022C-2 Bonds."

[Balance of page intentionally left blank]

* Preliminary, subject to change.

SECURITY FOR THE SERIES 2022B/C/D BONDS

Lien and Pledge of the Master Indenture

General. The Series 2022B/C/D 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 2022B/C/D Bonds will constitute Subordinate Debt under the Indenture, payable solely from the Net Revenues of the System. Net Revenues are Revenues less Operating Expenses (as defined in the Indenture). Revenues are defined as all moneys received as income, rates, fees, charges, receipts, profits and other moneys derived by the Authority from its ownership and operation of the System, and for the use of and for the services furnished by the System, including Connection Fees (as defined in the Indenture), transfers from the Rate Stabilization Fund to the Revenue Fund, proceeds of any business interruption insurance, and investment earnings on all of the funds held by the Trustee under the Indenture and the Authority, except any rebate fund that may be created under the Indenture. Revenues do not include refundable customer deposits, the IMA Capital Payments (as defined in the Indenture) or other payments solely in aid of construction, the EPA Grants or similar payments, or the proceeds resulting from the sale of all or a portion of the System.

The Series 2022B/C/D Bonds are payable and secured on a subordinate basis to the Outstanding Senior Debt and all other Senior Debt hereafter issued or incurred by the Authority pursuant to the Indenture, and on a parity basis with the Outstanding Subordinate Debt and all other Subordinate 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. The Series 2022B/C/D Bonds are not secured by a Debt Service Reserve Fund, therefore no Account in the Subordinate Debt Service Reserve Fund will be established for the Series 2022B/C/D Bonds.

Statutory Lien. The Act provides that a pledge of the Authority is binding from the time it is made. Any funds, or property pledged, are subject to the lien of a pledge without physical delivery. The lien of a pledge is binding as against parties having any tort, contract, or other claim against the Authority regardless of notice. Neither the resolution stipulating the terms for sale of Authority bonds nor any other instrument creating a pledge need be recorded.

Segregated Funds. The Act establishes the Water and Sewer Enterprise Fund and requires the Authority to operate it in accordance with generally accepted accounting principles. The Revenue Fund created by the Master Indenture constitutes the Water and Sewer Enterprise Fund. The Revenue Fund is required to be held by the Authority, subject to the lien of the Indenture.

According to the Act, subject to the provisions made by the Authority for security of revenue bonds, all revenues, proceeds, and moneys from whatever source derived (except those collected or received from the stormwater fee) which are collected or received by the Authority will be credited to the Revenue Fund and will not, at any time, be transferred to, lapse into, or be commingled with the General Fund of the District, or any other funds or accounts of the District, except for limited circumstances under which such funds shall be transferred to the District to pay for goods and services and property contracted for by the Authority from the District, or as otherwise authorized by law.

See “THE AUTHORITY – Authority’s Relationship to the District,” “CUSTOMER BASE, RATES AND CHARGES – Components of Retail Rates and Charges – Stormwater Fee.”

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 approximate amounts: (i) \$248,000 (4.3%) (Fiscal Year 2013), (ii) \$411,000 (7.2%) (Fiscal Year 2014), (iii) \$417,000 (7.3%) (Fiscal Year 2015), (iv) \$400,000 (7.0%) (Fiscal Year 2016), (v) \$394,000 (6.9%) (Fiscal Year 2017), (vi) \$377,000 (6.6%) (Fiscal Year 2018), (vii) \$354,000 (6.2%) (Fiscal Year 2019), (viii) \$[_____] (____) (Fiscal Year 2020) and (ix) \$[_____] (____) (Fiscal Year 2021)/

According to the Report of the Office of Management and Budget (“OMB”) to the Congress for Fiscal Year 2022, and as confirmed by the Internal Revenue Service, interest subsidy payments to issuers of direct payment bonds processed on or after October 1, 2021, through and including September 30, 2022, will be reduced by 5.7%, unless intervening Congressional action changes the reduction percentage.

Under the Budget Control Act there may be additional sequester orders for future fiscal years through and including fiscal year 2030. 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”) and the projected debt service shown in “DEBT SERVICE REQUIREMENTS – Outstanding Senior and Subordinate Debt” reflects the known subsidy reduction of 5.7% for Fiscal Year 2022, and assumes Direct Payments equal to 32% of the interest payments on Series 2010A Bonds in each year starting in Fiscal Year 2023. 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

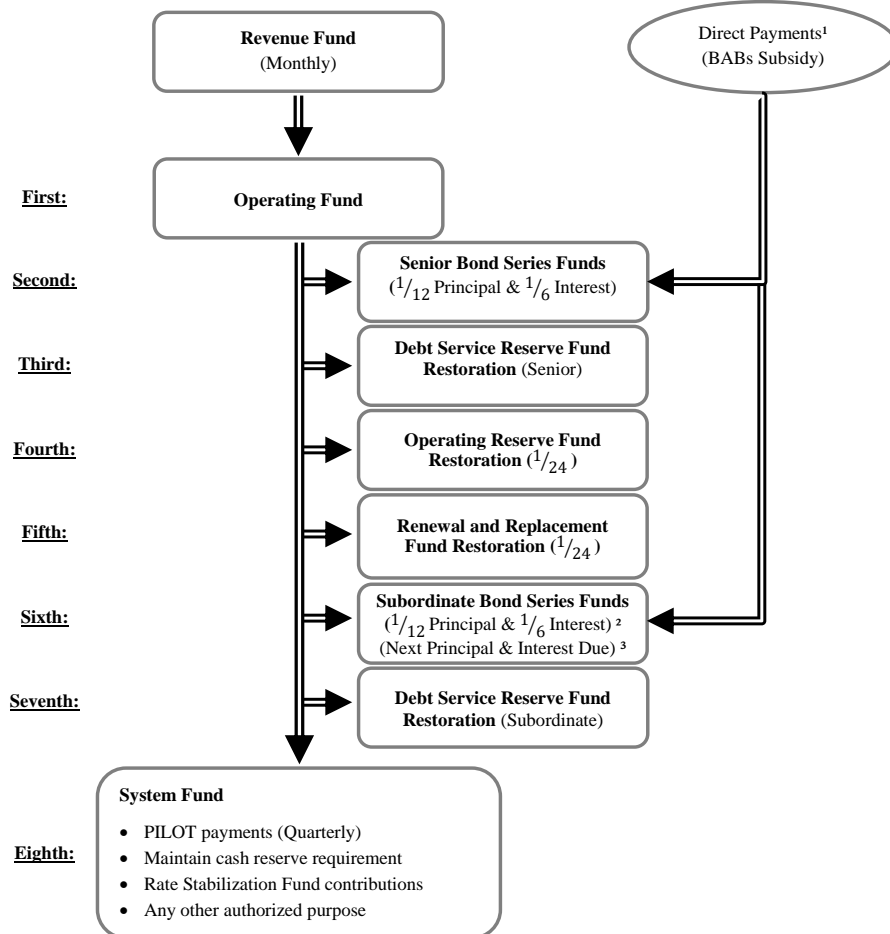
The Indenture prohibits the acceleration of Subordinate Debt if any Senior Debt (including Bonds) is outstanding. The Indenture confers upon the holders of not less than 25% of the aggregate principal amount of

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 (250 days of cash on hand); 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 2022B/C/D 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

[to be updated per new Board policies]

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 2022B/C/D 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, 2021 the balance in the Operating Reserve Fund was \$50.0 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 the original cost value of plant in service, 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, 2021, 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 or designee 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. As of September 30, 2021, the balance in the Rate Stabilization Fund was \$87.7 million. The Authority may withdraw funds from the Rate Stabilization Fund in the future to reduce rate increases that might otherwise be required. [update for FY21: At the direction of the Board, the Authority withdrew \$6 million from the Rate Stabilization Fund in Fiscal Year 2019.] See "FINANCIAL OPERATIONS – Reserve Funds – Rate Stabilization Fund" and "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 250 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 2021, the operating reserves requirement is \$125.5

million. As of September 30, 2021, the Authority had an operating reserve cash balance of \$196.3 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. [In January 2019, Authority staff recommended to further enhance the Authority's cash position and maintain a target of 250 days of cash on hand.] [As of _____, 20__, 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 2022B/C/D BONDS – Direct Payment Bonds – Sequestration."

Additional Board Policy. In addition to the Rate Covenant described above, in 2021, 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 sixty percent (160%) 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:

- i. 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
- ii. 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:

- i. evidence that the Authority has made provision as required by the Indenture for the payment or redemption of all Indebtedness to be refunded; and
- ii. 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 2022B/C/D 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 2022B/C/D 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, (iii) the Series 2022B/C/D Bonds and (iv) the Series 2022E Subordinate Bonds, as well as annual and aggregate totals. [To include 2022A Bonds/WIFIA Bond?]

Fiscal Year Ending September 30 ¹	Outstanding Subordinate Debt	Series 2022B/C/D Bonds			Series 2022E Subordinate Bonds ¹¹	Refunded Subordinate Debt	Total Outstanding Subordinate Debt <small>1, 2, 3, 4, 5, 6, 7</small>	Direct payments Relating to Series 2010A Bonds	Total Subordinate Debt ¹⁰	Outstanding Senior Debt	Total Senior and Subordinate Debt
		Principal	Interest	Total							
2020											
2021											
2022											
2023											
2024											
2025											
2026											
2027											
2028											
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2110											
2111											
2112											
2113											
2114											
Total⁹	\$3,974,443,450				\$200,805,556		\$4,175,249,006	\$(86,068,676)	\$4,089,180,330	\$3,193,185,515	\$7,282,365,845

* Certain totals may not add due to rounding. Data shown as of date of posting.

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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, 2022, are shown in the Fiscal Year ending September 30, 2022.

² Outstanding Subordinate Debt is calculated excluding the impact of Direct Payments related to the Series 2010A Bonds. See “SECURITY FOR THE SERIES 2022B/C/D BONDS – Direct Payments – Sequestration.”

³ [Reserved].

⁴ The Authority currently has \$[___] million of Commercial Paper outstanding, all of which is assumed to remain outstanding upon issuance of the Series 2022B/C/D Bonds. Debt service is based on a hypothetical amortization of \$[___] million of Commercial Paper over 20 years with an assumed interest rate of [___%].

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

⁶ Series 2014B Bonds are weekly-reset variable rate bonds payable through a Liquidity Facility provided by TD Bank, N.A., which expires on July 23, 2025. For calculation of the projected debt service requirement, the all-inclusive rate was assumed to be 2.00% in 2022, 2.50% in 2023 and 3.25% thereafter. The debt is assumed to amortize in Fiscal Year 2041 – Fiscal Year 2050.

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

⁸ Amounts shown for Fiscal Year 2055 – Fiscal Year 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 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 [5.7%] was applied to [2022]. Thereafter, the subsidy amount is assumed to be [___]% of the interest payments. See “SECURITY FOR THE SERIES 2022B/C/D 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 2022B/C/D BONDS – Direct Payments - Sequestration.”

¹¹ Series 2022E Subordinate Bonds anticipated to be issued by [_____, 2022]; Assumes \$[___] million in proceeds issued at par with an equal principal structure from [10/1/2050 - 10/1/2054]; Assumed initial rate of [2.00%] through the assumed mandatory tender date of [10/1/2024] and then assumed [3.25%] thereafter.

Source: Authority records.

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 as of 10/1/2021 ¹
Senior Debt				
Series 1998 Bonds	\$266,120	5.50%	2028	\$74,270
Series 2014A Bonds	350,000	4.81	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	185,290
Series 2018A Bonds	100,000	5.00	2049	100,000
Series 2018B Bonds	200,000	5.00	2049	189,520
Series 2021 Bond (WIFIA)	156,367 ²	1.87	2060	-
Total Senior Debt				\$999,080,000
Subordinate Bonds				
Series 2010A Bonds	300,000	4.07-5.52 ³	2044	290,890
Series 2012A Bonds	177,430	4.00-5.00	2037	132,700
Series 2012C Bonds	163,215	4.00-5.00	2033	163,215
Series 2014B Bonds	100,000	Variable Rate ⁴	2050	100,000
Series 2014C Bonds	377,700	3.00-5.00	2044	350,320
Series 2015A Bonds	100,000	2.00-5.00	2045	88,070
Series 2015B Bonds	250,000	5.00-5.25	2044	250,000
Series 2016A Bonds	389,110	5.00-5.25	2039	377,575
Series 2019A Bonds	104,010	4.00-5.00	2049	104,010
Series 2019B Bonds	58,320	5.00	2037	58,320
Series 2019C Bonds	99,505	Variable Rate ⁵	2054	99,505
Series 2019D Bonds	343,160	1.713-3.207	2048	339,885
Series 2022A Bonds ²	294,305	1.56-2.53	2036	-
Additional Subordinate Obligations				
TD Bank Master Letter of Credit	\$16,193	Variable Rate	N/A	-
Government Notes				
Jennings Randolph Reservoir Debt	\$18,269	3.25%	2041	-
Commercial Paper Notes ("CP Notes")				
Series B CP Notes	\$28,752	Variable Rate	2021	10,773
Series C CP Notes	\$29,200	Variable Rate	2021	
				28,752
Extendable Municipal Commercial Paper Notes ("EMCP Notes")				
Series A EMCP Notes	\$50,000	Variable Rate	2021	29,200
Total Subordinate Debt				50,000
Total				<u>2,473,215</u>
				\$3,472,295

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

² Maximum amount, zero was outstanding as of October 1, 2021.

³ 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 2022B/C/D BONDS – Direct Payments – Sequestration."

⁴ The Series 2014B Bonds are weekly-reset variable rate bonds supported by a Liquidity Facility provided by TD Bank, N.A.

- ⁵ The Series 2019C Bonds are multimodal variable rate bonds currently bearing a 1.75% fixed rate through the mandatory tender date of October 1, 2024
- ⁶ 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 TD Bank, N.A.; the Series A CP Notes are not currently authorized for issuance.
- ⁷ Maximum amount authorized to be outstanding at any one time for the Series C CP Notes is \$50 million.
- ⁸ Final maturity of the CP Notes reflects expiration of current credit facility.
- ⁹ Maximum amount authorized to be outstanding at any one time for the Series A EMCP Notes is \$100 million.
- ¹⁰ 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 in Table 1, as of October 1, 2021, the Authority had Senior Debt outstanding in the aggregate principal amount of approximately \$1 billion consisting of its Public Utility Senior Lien Revenue Bonds, Series 1998 (the “Series 1998 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”), its Public Utility Senior Lien Revenue Bonds, Series 2017B (the “Series 2017B Senior Bonds”), its Public Utility Senior Lien Revenue Bonds, Series 2018A (Green Bonds) (the “Series 2018A Senior Bonds”) and its Public Utility Senior Lien Revenue Bonds, Series 2018B (the “Series 2018B Senior Bonds”). The Authority expects to issue additional Senior Debt in the future to finance capital improvements to the System. See “CAPITAL IMPROVEMENT PROGRAM.”

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 October 1, 2021, the Authority had Subordinate Debt outstanding in the aggregate principal amount of approximately \$2.47 billion.

Subordinate Bonds. As of October 1, 2021, approximately \$2.35 billion of Subordinate bonds was outstanding, consisting of its Public Utility Subordinate Lien Revenue and Revenue Refunding 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.”

[ADD DESCRIPTION OF FORWARD PURCHASE AGREEMENT WITH JP MORGAN APPLICABLE TO SERIES 2022A BONDS.]

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 [January 1, 2022], \$[_____] of Government Notes was outstanding. Upon the issuance of the Series 2022B/C/D 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 Toronto Dominion Bank (“TD Bank”) on May 15, 2020. In connection with the TD Bank’s issuance of the Letters of Credit, the Authority and TD Bank entered into a Reimbursement Agreement for each series of CP Notes, each dated as of May 1, 2020, 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, as amended) and Fee Obligations (as defined in each Reimbursement Agreement) to TD Bank. TD Bank’s Obligations, the Reimbursement Obligations and Fee Obligations are Subordinate Debt under the Indenture. As of [January 1, 2022], approximately \$28.8 million of the Series B CP Notes and \$29.2 million of the Series C CP Notes were outstanding.

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 [January 1, 2022], \$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 21.3 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 \$55.8 million as of September 30, 1998, to \$312.0 million as of September 30, 2021. The Authority’s operating revenues have increased from \$258.4 million in Fiscal Year 1998 to \$770.5 million in Fiscal Year 2021.

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 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*.

In 2018, the Authority received (i) the Utility of the Future Award from the *National Association of Clean Water Agencies*, (ii) Honorable Mention in the Spaces, Place and Cities category in the 2018 Innovation by Design Awards Program by *Fast Company*, (iii) Global Best Project Award – Award of Merit in Water/Wastewater for the Anacostia River Tunnel project from *Engineering News-Record*, (iv) Mid-Atlantic Best Project Awards – Award of Merit Water/Wastewater for the Anacostia River Tunnel from *Engineering News-Record*, (v) Tunneling and Underground Space Award – Sustainability Initiative of the Year from the *International Tunneling Association* for the DC Clean Rivers Project, (vi) 2018 Outstanding Shotcrete Project of the Year in the Underground Category from the *American Shotcrete Association* for the Tuber Creek Sewer Repair, (vii) Excellence in Dispute Avoidance and Resolution Award from the *Disputes Review Board Foundation*, (viii) Distinguished Budget Presentation Award from the *Government and Finance Officers Association*, (ix) Certificate of Achievement for Excellence in Financial Reporting from the *Government and Finance Officers Association*, (x) 100 Best Fleets from *National Association of Fleet Administrators*, (xi) Platinum Peak Performance Award recognizing 100 percent compliance with the NPDES permit limits for a consecutive five-year period from *National Association of Clean Water Agencies*, (xii) Certification in Business Continuity Management System, (xiii) Conditional Accreditation from the *Emergency Management Accreditation Program*.

In 2020, the Authority’s Office of Marketing and Communications accepted a (i) Public Communication and Outreach Program Award from the Water Environment Federation (WEF) for its first-ever children’s book, “Wendy, Where Does the Wastewater Go?” In the book, the Authority’s waterdrop mascot takes a group of students on a tour through each of the steps of the wastewater treatment process, beginning in a home where the water is first used, and ending with cleaned water being released back into the Potomac River.

In 2021, The National Association of Clean Water Agencies (NACWA) honored the Authority with a Platinum9 Award for nine consecutive years of 100% compliance with the requirements of the U.S. Environmental Protection Agency’s National Pollutant Discharge Elimination System (NPDES).

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 2022 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 “– Authority’s Relationship to the District” and “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 Operations, 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, Chair	District of Columbia	December 2016	September 2024
Rachna Bhatt	District of Columbia	July 2012	September 2022
David Franco	District of Columbia	May 2017	September 2023
Anthony Giancola	District of Columbia	May 2021	September 2024
Christopher Herrington	Fairfax County	December 2021	September 2025
Floyd Holt	Prince George’s County	February 2019	September 2022
Fariba Kassiri	Montgomery County	June 2019	May 2024
Tara Jackson	Prince George’s County	January 2021	September 2023

* 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. [Update as needed]

Tommy Wells (District of Columbia)

Mr. Wells was appointed as principal member of the Board in December 2016 and as Chair 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.

Rachna Bhatt (District of Columbia)

Ms. Bhatt was appointed as a principal member to the Board in July 2012. Ms. Bhatt serves as Director at HRGM Corporation, and has been with HRGM since 2001. Previously, Ms. Bhatt served as an Associate for Wachovia Securities, and as a consultant for Deloitte & Touche, LLP. Ms. Bhatt serves as a board member for the Professional Women in Construction and holds a Virginia Class A Contractor's License. Ms. Bhatt holds and 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.

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 several businesses in the District, including Discount Mart, Trumpets Restaurants, Tracks Nightclub, and Universal Gear. 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.

Anthony Giancola (District of Columbia)

Mr. Giancola was appointed a principal member of the Board in 2021. He is a licensed professional engineer in the District of Columbia. His active duty career in the Civil Engineer Corps, U. S. Navy, achieving the rank of Commander, included tours in the Public Works (4), Contracts, Seabees, and as a Staff Civil Engineer (2). Since military retirement he has worked as the Public Works Director, City of Takoma Park, Maryland and Chief Engineer, Public Works Department, Frederick County, Maryland. He served as the Executive Director, National Association of County Engineers from October 1993 - June 2011 before retirement. He is a former chair of the Transportation Research Board (TRB) Low Volume Roads Committee (2001-2007) and serves on the Roadway Safety Foundation Advisory Committee from 1997 - present. Active in community activities he was the President of Plan Takoma, Inc., a non profit 501(c) 3 community organization in the District of Columbia from 1984 - 1998; was an appointed member of the DC Convention Center Community Advisory Committee (1995 to 2015 serving as 2nd Vice President); and an appointed Alternate member of the Board of Directors of the Washington Metropolitan Area Transit Authority (2007 - 2011 District of Columbia and 2011 - 2016 Federal).

Christopher Herrington (Fairfax County)

Mr. Herrington was appointed a principal member of the Board in 2021. He began his appointment as director of the Department of Public Works and Environmental Services. He has over 25 years of local government experience with the City of Austin, Texas. He served as the assistant director for the Watershed Protection Department and as Austin's senior environmental policy officer, advising public officials, city departments and the public on a wide variety of development projects. While serving as Austin's senior environmental policy officer, Herrington worked to ensure that the protection of Austin's natural resources and residents received the highest priority in all public and private development. He has a dual background in ecology and engineering and has authored numerous publications on water quality and the environment. Herrington has a Bachelor of Science in Biology and a Master of Science in Civil Engineering, both from the University of Texas at Austin.

Floyd Holt (Prince George's County)

Mr. Holt was appointed a principal member of the Board in 2019. Mr. Holt is Deputy Chief Administrative Officer for Government Infrastructure, Technology and the Environment for Prince George's County Maryland. He previously worked as Prince George's County's Deputy Director of Central Services. Mr. Holt served as Chief of University Police at Gallaudet University; the world's only liberal arts university for the deaf before joining the Washington Suburban Sanitary Commission as Chief of Public Safety and Internal Investigations. He was later appointed Director of General Services, overseeing Fleet Management and Transportation, Warehousing, Quality Assurance, Procurement and Contracting. Mr. Holt attended the University of Maryland where he received a Bachelor's Degree in Government and Politics with a minor in Law Enforcement. Mr. Holt also holds a Master's in Business Administration from Gallaudet University.

Tara H. Jackson (Prince George's County)

Ms. Jackson was appointed a principal member of the Board in 2021. In December 2020, Tara H. Jackson assumed the role of Acting Chief Administrative Officer of Prince George's County. Prior to that, she served as Deputy

Chief Administrative Officer for Government Operations, having joined the County Executive's leadership team in December 2018. Ms. Jackson has served in the County's Office of Law, serving as Deputy County Attorney for Government Operations. As part of the office's leadership team, she provided advice and counsel to the County Executive, Senior Executive Staff, and department and agency leadership. She earned a Bachelor of Science from James Madison University, a Juris Doctor from the University of Maryland School of Law, and a Master of Divinity in Leadership Development from the Phoenix Seminary. She is a member of the Board of Directors of the Foundation Schools and serves on the Character Committee of the Fourth Appellate Judicial Circuit.

Fariba Kassiri (Montgomery County)

Ms. Kassiri was appointed principal member of the Board in 2019. Ms. Kassiri is the Montgomery County Deputy Chief Administrative Officer (DCAO) and joined the Office of the County Executive in 2006. She is responsible for assisting the Chief Administrative Officer (CAO) in managing the operations and performance of County Government. In doing so, she provides administrative oversight to the directors of County departments and ensures that departments' core activities align with the County's Effective and Sustainable priority outcome and comply with all applicable policies, procedures, and regulations. Prior to joining Montgomery County, Ms. Kassiri spent four years as Special Advisor to the Prince George's County Chief Administrative Officer, providing recommendations to the County Executive and Chief Administrative Officer on a wide array of issues, programs, and policies. Ms. Kassiri holds a Bachelor of Science degree in Civil and Environmental Engineering from the University of Colorado, and a Master's degree in Public Policy specializing in finance and management from the University of Maryland.

Organizational Structure

[update]

The Authority's day-to-day operations are managed by the Chief Executive Officer (CEO), who is appointed by the Board. The CEO is supported by the Chief Financial Officer and Executive Vice President, Finance and Procurement (CFO); the Chief of Staff; the Executive Vice President, Operations and Engineering; the Executive Vice President, Performance; the Executive Vice President, Administration; and the Executive Vice President, Customer Service. Also reporting to the CEO is the Executive Vice President, Legal Affairs and the Executive Vice President of People and Talent.

The CFO oversees the departments of Finance, Accounting, Budget and Rates and Revenue, and Procurement. The Chief of Staff is responsible for the evaluation, oversight and implementation of all Authority business-related processes, policies, operating procedures. The Executive Vice President of Operations and Engineering oversees Water Operation and Water Quality, Engineering, Wastewater, Permit Operation, and Clean Rivers. The Executive Vice President of Administration oversees Security, Safety, Emergency Management, Fleet Management, and Facilities Management.

The Executive Vice President of Performance oversees Sustainability & Watershed Management, Integration & Delivery, Business Performance Management, and Enterprise Program Management. The Executive Vice President of Customer Experience oversees Customer Care, Marketing & Communication, Business Relations, IT (Infrastructures and application).

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.

David Gadis, CEO and General Manager

Mr. Gadis was appointed CEO and General Manager in 2018. Mr. Gadis brings 20 years of industry experience to the role, most recently as Executive Vice President of Veolia North America (VNA), where he led North American business development operations, and was responsible for corporate growth and \$3 billion in revenue. Mr. Gadis has been a frequent presenter at utility and government services conferences, including the U.S. Conference of Mayors, speaking on both Underground Infrastructure and Managing Utilities, as well as the National League of Cities and the National Association of Public Private Partnerships. Mr. Gadis earned a basketball scholarship to Southern Methodist University and was a four-year basketball player and team captain before graduating from SMU with a B.A. in Marketing Communications.

Kishia L. Powell, P.E., Chief Operating Officer and EVP

Kishia L. Powell joined DC Water in May 2020 and serves as the Authority's Chief Operating Officer and Executive Vice President, overseeing all operating departments, as well as the Customer Service and Administration clusters. Ms. Powell comes to the Authority from her previous role as Commissioner of the City of Atlanta's Department of Watershed Management, where she had served since June 2016. With expertise in sustainable

infrastructure management and utility operations, she has leveraged 22 years of experience in both the public and private sectors to successfully serve municipalities across the United States and London, England. In 2019 and 2020 she was recognized as one of Georgia's Top 100 Influential Women in Engineering Georgia Magazine and received the WaterNow Alliance's 2019 Impact Award for leadership in closing the country's first publicly offered Environmental Impact Bond. On behalf of DC Water, COO Powell serves as the President of the National Association of Clean Water Agencies. COO Powell is a licensed Professional Engineer in the District of Columbia, Virginia, and Maryland. She holds a Bachelor of Science degree in Civil Engineering from Morgan State University's Clarence M. Mitchell, Jr. School of Engineering.

Matthew T. Brown, CFO and Executive Vice President, Finance and Procurement

Mr. Brown was appointed CFO and Executive Vice President, Finance and Procurement in 2017. From 2015 until his appointment as Chief Financial Officer and Executive Vice President, Finance and Procurement, Mr. Brown served as a principal member and Chair of the Board and as the Director of the Office of Budget and Finance. 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 Sewerage District, Public Financial Management and the Washington Metropolitan Area 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.

Wayne Griffith, Chief Strategy and Performance Officer and EVP, Strategy and Performance

Wayne Griffith serves the Authority as Chief Strategy and Performance Officer and Executive Vice President, Strategy and Performance. Mr. Griffith is a utility management professional with over 36 years' experience in the water infrastructure market. He promotes and delivers programs to optimize assets, improve revenues, and enhance resources, achieving improved levels of performance and service. He is responsible for the functions for the development and execution of the Authority's strategic plan, Blueprint 2.0. This includes Strategic Management, Enterprise Program Management, Sustainability & Innovation program development and management, and Enterprise Risk Management. He has a unique blend of industry leading private sector operations management, niche utility business development and consulting experience. He has a B.S. in Environmental Engineering from Temple University and M.S. in Environmental Engineering from Michigan State University.

Keith J. Lindsey, Chief of Staff

Keith J. Lindsey initially joined the Authority in 2017, and currently serves as Chief of Staff. In this capacity, Mr. Lindsey is responsible for advising and delivering on programs and initiatives related to the specific needs of the Office of the CEO. These initiatives include the CEO's programs to improve internal controls, transparency and accountability. Mr. Lindsey partners across all Divisions to execute the CEO's vision. Mr. Lindsey holds a Master of Science in Management with Troy University with a focus on Leadership and Organizational Design. He also holds a Bachelor of Arts in Psychology with a focus on Adult Education from Saint Leo College. Additionally, he has completed Executive Education Programs with Harvard, The Wharton School of the University of Pennsylvania, Duke Corporate University, and the Center for Creative Leadership. Mr. Lindsey retired honorably from the United States Air Force in 1999, after 20 years of service, including eight years stationed in Europe and Asia.

Kirsten B. Williams, Chief Communications and Stakeholders Engagement Officer, and EVP

Kirsten B. Williams has served as Chief Communications and Stakeholders Engagement Officer, and EVP for the Authority since 20[] and has over twenty years of professional communications and stakeholder engagement experience. Most recently, Kirsten served as the Deputy Executive Director of the Public Service Commission of the District of Columbia. She previously served as the Senior Public Affairs Manager at Pepco. In this role, Ms. Williams addressed policy and legislative matters in the District, as well as stakeholder relations with government entities, community leaders, business organizations and non-profit groups. Ms. Williams has also served as an Attorney Advisor at the Federal Energy Regulatory Commission where she provided counsel on matters related to market-based rates and regional stakeholder processes. She earned two Bachelors of Science degrees in Public Relations and Public Communications from Appalachian State University, a Master of Public Administration from Appalachian State University and a Juris Doctorate from Howard University School of Law. Ms. Williams has served as a member of the Appalachian State University Board of Visitors and on Appalachian's Department of Communication Professional Advisory Board.

Lisa Stone, Chief People and Inclusion Officer and EVP, People and Talent

Lisa Stone is the Authority's Chief People and Inclusion Officer and Executive Vice President of People and Talent, where she is accountable for developing and executing the Human Capital and Diversity strategy for the

Authority. Ms. Stone has over 20 years of leadership experience in Human Resources, specializing in: human capital change management strategy, leadership development, and diversity & inclusion. Prior to joining the Authority, MS. Stone served as: VP of Human Resources for Freddie Mac, a mission based organization, making home ownership possible for millions of families and individuals; Head of Human Resources for New Media Strategies, a global leader in online promotion and protection; Global Human Resources Business Partner for AOL-Time Warner, a multinational mass media and entertainment company; and, various leadership positions at HSBC. Ms. Stone facilitates several diversity leadership trainings for a variety of organizations including, the National Society of Black Engineers (NSBE), the National Association of Black Accountants (NABA), the American Society for Training and Development (ASTD), as well as several nonprofit organizations.

Marc K. Battle, Esq., Chief Legal Officer and Executive Vice President

Marc K. Battle, Esq. serves DC Water as Chief Legal Officer and Executive Vice President, Government and Legal Affairs. Joining the Authority in November 2019, Mr. Battle came to DC Water from Pepco, where he served in several roles, most recently as Region Vice President. As Executive Vice President, Legal Affairs, Mr. Battle manages, coordinates and performs all actions necessary to provide competent, timely legal advice to the CEO, the Board of Directors and all offices and departments of the Authority. Additionally, Mr. Battle is responsible for directing a team of attorneys and professional staff engaged in a wide range of legal matters, including regulatory compliance, litigation, FOIA, contract, employment and tort law. Mr. Battle is a graduate of the University of the District of Columbia and holds a J.D. from the Howard University School of Law. He serves as board member of the Greater Washington Urban League, Leadership Greater Washington, the DC Chamber of Commerce and the University of the District of Columbia Foundation.

Authority's Relationship to the District

General. In accordance with section 207(e) of the Act, the District retained full legal title to, and a complete equitable interest in, the System; however, the System must remain under the control of the Authority for as long as any Authority revenue bonds remain outstanding. The District also has the power to appoint certain Board members, see “– Board of Directors” above.

According to the Home Rule Act, as amended by the “District of Columbia Water and Sewer Authority Independence Preservation Act,” P.L. 110-273, enacted by the Congress on July 15, 2008, (i) the authority of the District’s Chief Financial Officer to hire, supervise and remove certain financial management employees, set forth in Section 424A of the Home Rule Act (D.C. Official Code Section 1-204.25), 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.

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.”

The Act provides that, subject to the provisions made by the Authority for security of revenue bonds, all revenues, proceeds, and moneys (except those collected or received from the stormwater fee) which are collected or received by the Authority will be credited to a segregated fund and will not, at any time, be transferred to, lapse into, or be commingled with the General Fund of the District or any other funds or accounts of the District, except for limited circumstances under which funds will be transferred to the District to pay for goods and services and property contracted for by the Authority from the District, or as otherwise authorized by law. See “SECURITY AND SOURCE OF PAYMENT FOR THE [SERIES 2022 BONDS] – Lien on and Pledge of Net Assets – *Segregated Funds.*”

The Act also 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 DC Water Consumer Protection Amendment Act of 2018, DC Law 22-299, effective April 11, 2019 (the “OPC Act”), amended the Act authorizing the Office of the People’s Counsel, an independent agency of the District of Columbia government to (1) represent District of Columbia rate payers at DC Water administrative hearings; (2) represent the interests of and advocate for District of Columbia ratepayer’s at public hearings; (3) represent and advocate for District of Columbia ratepayers at proceedings before local and federal regulatory agencies and courts; (4) investigate the services given by, and the rates charges by, the Authority; and (5) advise and educate the Authority customers about their legal rights and responsibilities pursuant to the rules governing service by the Authority. The OPC Act also requires the Authority to provide the public at least 45 days notice to consider adjustments to water and wastewater rates before a public hearing is held and to provide a written response to the OPC if it submits any written comments on the establishment or adjustments of water and wastewater rates. The OPC Act will not have a material impact on the Authority or its finances. See “Customer Base, Rates and Charges – Customer Assistance Programs”.

The Fiscal Year 2019 Budget Support Act of 2018, D.C. Law 22-168, effective October 30, 2018 (the “Budget Act”), amended the Act authorizing the Mayor to establish a financial assistance program to assist residential and nonprofits organizations located in the District with their payment of the Clean Rivers Impervious Area Charge. The District also included \$7 million to fund the programs. On December 28, 2018, DC Water expanded its Customer Assistance Program (CAP) to establish the CAPII program to provide benefits to customers whose household income exceeded the current CAP program of 60% of the state median income, but below 80% of the area median income. DC Water also transferred \$6 million from its Rate Stabilization Fund to fund this program. Based on the level of customer participation in these programs during FY 2019, and the amount of funds remaining, the District and DC Water plan to carryover the remaining funds into FY 2020. The Budget Act will not have a material impact on the Authority or its finances.

Memoranda of Understanding. 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 2018, the Authority made a PILOT payment to the District in the amount of \$16.3 million. 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 the amount of the ROW Fee payment of \$5.1 million to the District for Fiscal Years 2015 to 2024 and revised 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 wastewater 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.

Proposed Legislation. [Any Council bills that have been introduced that could materially impact the Authority that the Authority is aware of?]

Employees and Labor Relations

The total number of authorized positions for the Authority for Fiscal Year 2022 is 1,253. As of November 1, 2021, the Authority had 1,105 full-time equivalent employees, of whom 670 were represented by five unions:

- American Federation of Government Employees (“AFGE”) consisting of Locals 631, 872 and 2553;
- American Federation of State, County and Municipal Employees (“AFSCME”), Local 2091; and,
- National Association of Government Employees (“NAGE”), Local R3-06.

The Authority and all five unions operate under a single Master Agreement on Compensation, which is effective from October 1, 2019 through September 30, 2023.

The Authority is also a party to five separate working condition agreements with each union. The AFGE 2553 and AFSCME Local 2091 working condition agreements expired on September 30, 2021, but the terms of each agreement remain in effect and the Authority expects the agreements to be renewed for an additional term subject to further negotiations. The NAGE R3-06 working condition agreement is effective for a 4-year term from October 1, 2019 through September 30, 2023. The AFGE 631 and 872 working condition agreements are subject to renewal negotiations at any time moving forward (until negotiations commence, the same terms and conditions of each working condition agreement remain in full force and effect).

The percentage of current employees eligible to retire within the next five and ten years (based on age and years of service) is shown in Table 2.

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

	12/01/2021	12/31/2026	12/31/2031
Employees	6%	17%	31%
Directors and Executives	8%	25%	42%

Source: Authority records.

People & Talent within the Authority’s Human Resources department launched a Succession Development Pilot Program in the 3rd Quarter of the fiscal year 2019. The pilot program includes critical positions from both leadership and operational rolls across the Authority. The program uses a systematic approach of identifying critical positions, developing internal talent, retaining organizational knowledge, and fostering interdepartmental collaboration.

Retirement/Pension Plan

Most DC Water employees participate in Defined Contribution type retirement plans. In the 401(a) Defined Contribution plan, all contributions are made by DC Water, who contributes 7% of employee base pay each pay period. An additional matching contribution is made (dollar for dollar) when employees defer money into the 457(b). The maximum match is 5%. Employees with salaries more than the social security wage base receive an additional 5% contribution each pay period for the salary above the social security wage base. This plan requires three (3) years of service to be fully vested (Cliff Vesting Schedule). In the 457(b) Deferred Compensation plan, employees may defer salary on a pre-tax basis up to the annual limits established by the IRS. Finally, in the Retirement Health Savings Plan, non-union employees who leave DC Water after 5 years of service with an unused sick leave balance

of equal or greater than 100 hours have the value of the sick leave cashed out and deposited into a Retirement Health Savings Plan for the benefit of the employee.

The Authority has a small group (61 as of September 2021) of employees participating under Federal Benefits. Most of the employees were hired before October 1, 1987. In the Civil Service Retirement (CSR) plan, each pay period DC Water contributes 7% of base pay and the employee contributes 7% of base pay into the CSR system. When these employees retire, their pension is paid by the Federal Government and administered by the Office of Personnel Management. DC Water bears no post retirement cost. The Federal Retirement Health and Life plan consists of a grandfathered group who may continue to participate in the Federal Health Benefits Plan at the same cost share arrangement as active employees. The employer share is assumed by the federal government and administered by OPM after retirement.

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 2021. 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, 2021 with coverage through July 1, 2022. Since the passage of the Terrorism Risk Insurance Act of 2002 ("TRIA"), terrorism coverage is included under all insurance policies.

Risks from Unexpected Events

General

The Authority's infrastructure could sustain damage and loss of use as a result of certain unexpected events, such as terrorist attacks, extreme weather events and other natural occurrences, fires and explosions, spills of hazardous substances, strikes and lockouts, sabotage, wars, blockades and riots. While the Authority has attempted to address the risk of loss through the purchase of insurance, certain of these events may not be covered. Furthermore, even for events that are covered by insurance, the Authority cannot guarantee that coverage will be sufficient or that insurers will pay claims in a timely manner. From time to time, the Authority may change the types of, and limits and deductibles on, the insurance coverage that it carries. The Authority cannot predict what effects any of these events may have on the Authority's ability to generate Revenues, but the effects may be materially adverse.

Global Climate Change

Numerous scientific studies on global climate change show that, among other effects on the global ecosystem, sea levels will rise, extreme temperatures will become more common and extreme weather events will become more frequent as a result of increasing global temperatures attributable to atmospheric pollution. Over the next 25 to 100 years, such extreme events and conditions are expected to increasingly disrupt and damage critical infrastructure and property as well as regional economies and industries that depend on natural resources and favorable climate conditions. Disruptions could include more frequent and longer-lasting power outages, fuel shortages and service disruptions. Coastal public infrastructure may be threatened by the continued increase in the frequency and extent of high-tide flooding due to sea level rise, and inland infrastructure, including access to roads, the viability of bridges and the safety of pipelines, may be affected by increases in the severity and frequency of heavy precipitation events. Near-coastal areas like the greater Washington, D.C. metropolitan area (which contains areas of land that are at or near sea level) may be at risk of substantial flood damage over time, affecting private development and public infrastructure. As a result, many residents, businesses, and governmental operations within this area could be negatively impacted and possibly displaced, reducing the number of rate payers and users of the system. In addition, local public agencies and governmental entities, could be required to mitigate these climate change effects at a potentially material cost.

Ensure a Safe & Reliable Computing Environment

As a retail utility and critical infrastructure asset, the Authority is at risk from an array of threat sources including the casual hacker to a state sponsored cyber terrorist. It is the Authority's priority and responsibility to maintain a safe and reliable computing environment 24/7. The Authority was the first water utility to adopt the voluntary Cyber Security framework outlined in Executive Order 13636, "Improving Critical Infrastructure Cyber Security," issued in February 2013. This Cyber Security framework is now formally known as the NIST Cybersecurity Framework (the "NIST Framework"). The NIST Framework forms the foundation of the Authority's Cyber Security program. Coupled with a layered defense approach, a default deny strategy, a privilege access control policy and a

comprehensive cyber awareness program, the Authority strives to ensure the highest level of protection across its computing environment.

The NIST Framework focuses on five (5) primary pillars of excellence. The Authority helps to:

Identify – Develop an organizational understanding to manage cybersecurity risks to systems, people, assets, data and capabilities. The activities in the Identify Function are foundational for effective use of the NIST framework. Understanding the business context, the resources that support critical functions, and the related cybersecurity risks enables an organization to focus and prioritize its efforts, consistent with its risk management strategy and business needs. Examples of outcome categories include: Asset Management, Business Environment, Governance, Risk Assessment and Risk Management

Protect – Develop and implement appropriate safeguards to ensure delivery of critical services. The Protect Function supports the ability to limit or contain the impact of a potential cybersecurity event. Examples of outcome categories include: Identity Management and Access Control, Awareness and Training, Data Security, Information Protection Processes and Procedures and Patch Management and Protective Technology.

Detect – Develop and implement appropriate activities to identify the occurrence of a cybersecurity event. The Detect Function enables timely discovery of cybersecurity events. Examples of outcome categories include: Anomalies and Event detection, Security Continuous Monitoring and Correlation Analysis.

Respond – Develop and implement appropriate activities to take action when cybersecurity incident is suspected or detected. The Respond Function supports the ability to contain the impact of a potential cybersecurity incident. Examples of outcome categories include: Response Planning, Communications Analysis, Mitigation and Incident Management.

Recover – Develop and implement appropriate activities to maintain plans for resilience and to restore any capabilities or services that were impaired due to a cybersecurity incident. The Recover Function supports timely recovery to normal operations to reduce the impact from a cybersecurity incident. Examples of outcome categories include: Recovery Planning, Backup and Replication and Recovery Management.

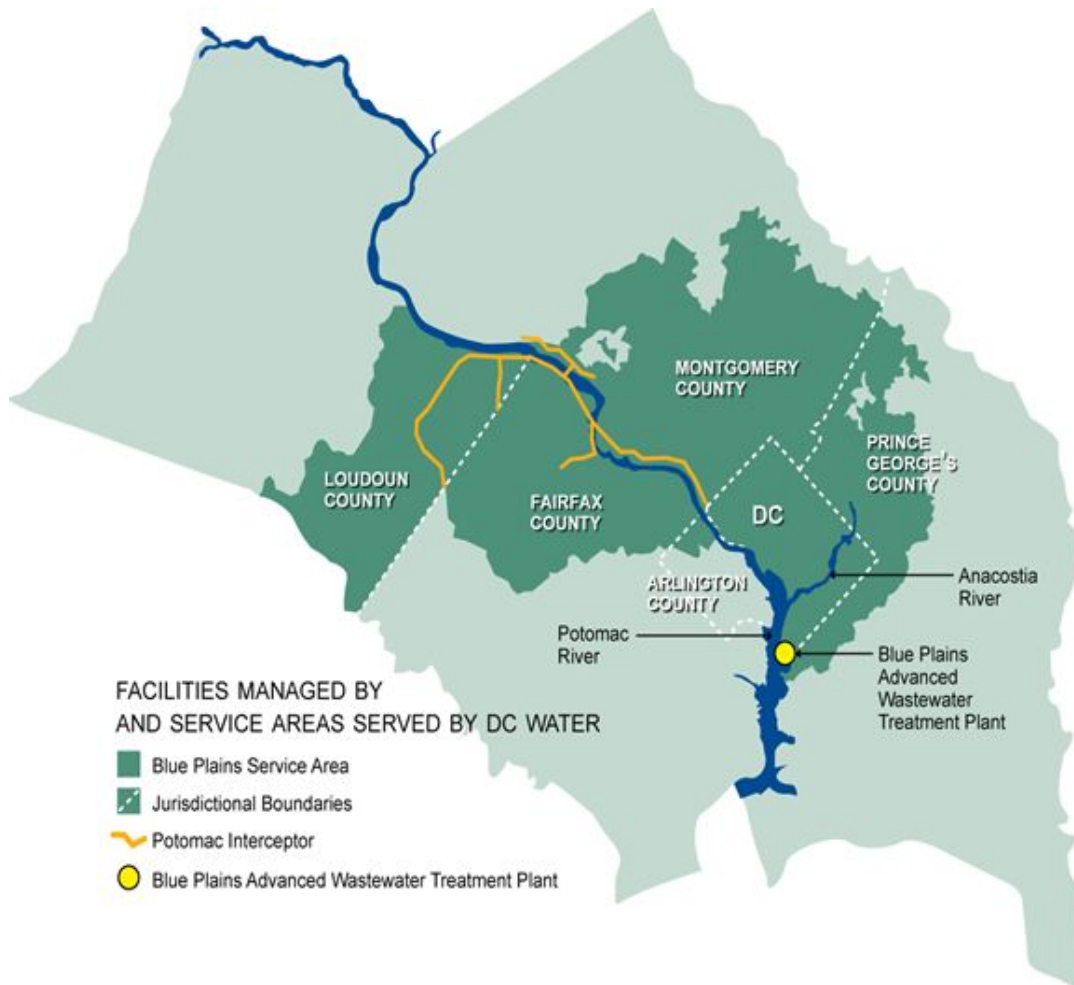
In addition to the NIST Framework, the Authority has implemented information systems with consideration to IT-related risks that could impact the Authority or the Water and Waste Water Systems of the Authority. The information system's goal is met through the following security objectives: confidentiality – 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 also has an established network of resources, which it leverages to proactively assess new and evolving risks including: vendors, WaterISAC, DHS, auditors and peer utilities. These resources contribute to continuously improving the Authority's capabilities. Finally, 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.

Adopting the NIST Framework and implementing information systems alone will not ensure the Authority and the Water and Waste Water Systems are protected from a cyber-threat. The Authority's success is achieved by institutionalizing the elements of the NIST Framework and information system, so it becomes the way of doing business not something else the Authority does.

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

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 384 mgd.

Service Area

The Blue Plains service area includes the District (retail service), parts of Arlington, 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, 50,000 manholes, 25,000 catch basins, 22 flow metering stations, nine sewage pumping stations, 16 stormwater pumping stations, seven miles of tunnels (23-feet in diameter and buried over 100 feet deep), 11 drop shafts, 25 diversion chambers and approximately 200 green infrastructure facilities. 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, Maryland, and Pennsylvania 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 August 26, 2018. 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.

The DC Clean Rivers Project continues on schedule. The FY 2022 – FY 2031 CIP includes approximately \$1.12 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 –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

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

[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 and incorporated these changes into the amended 2005 LTCP Consent Decree.

[update] 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”). [update: The Authority submitted an application to the DOEE for the Chapter 3 Operating Permit in March 2008 and the application was updated in 2016 to include all new sources.]

Future Matters. [update] 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, 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 that case was closed. However, the EPA’s revised decisional rationale was challenged in a separate proceeding. On

August 12, 2019, the U.S. District Court for the District of Columbia held that the TMDL for E. coli that DOEE developed and the EPA's approval (based on its revised decision rationale) did not comply with the Clean Water Act. The court vacated the TMDL, but stayed the vacatur for one year to allow for the development of new TMDL. The Authority will monitor the development of new TMDL and will advocate, as necessary, on behalf of itself and its rate payers.

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)
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
2018	34,343	94.1	132.5
2019	35,189	96.4	135.0
2020	33,639	92.2	129.1
2021	34,719	95.1	133.1

Source: Authority 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 \$187 million, which is accounted for in the CIP. See "CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Washington Aqueduct Projects."

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 384 mgd currently exceeds the day-to-day demands and peak requirements of their respective service areas.

Finished water from the Dalecarlia WTP and McMillan WTPs is pumped by the Dalecarlia Pumping Station and Bryant Street Pumping Station, respectively, to the water distribution system. The water distribution system is also served by two pump stations (16th and Alaska Pump Station and Anacostia Pump Station), four underground reservoirs (Brentwood, Soldier's Home, Fort Reno No. 1, and Fort Stanton No.1), three elevated tanks (St. Elizabeth's Elevated Tank, Good Hope Elevated Tank and Boulevard Elevated Tank) operated by the Authority. Also, three reservoirs owned and operated by the Aqueduct (Foxhall, Van Ness and Fort Reno Reservoir No. 2) serve the water distribution system. The combined facilities can store up to 102 million gallons ("mg") of finished water. Flexibility in the distribution system is provided in that DaleCarlia and Bryant Street Pump Station each can pump to the reservoirs in the distribution system as circumstances warrant.

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 increased from **72.14% in 2017** to **74.33% in 2018**. 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.

[update] The Authority estimates the cost of the lead service line replacement program in the CIP at \$63.2 million over the next 10 years. From the inception of the line replacement program through September 30, 2018, the Authority expended \$214.8 million on the lead service line replacement program. See "CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Water Projects."

The Lead Water Service Line Replacement and Disclosure Amendment Act of 2018, D.C. Law 22-241, effective March 13, 2019 and as amended by D.C. Law 23-229 effective March 16, 2021 (the "Line Replacement Act"), established new programs that will fund the replacement of the lead service lines on private property. The Authority is prohibited, however, from replacing only a portion of a lead water service line that is on public property. The Line Replacement Act accomplishes four things:

- (1) Full Lead Water Service Line Replacement. The Line Replacement Act authorizes the Authority to use District appropriated funds to pay for the costs to replace the lead water service line on private property when the Authority is replacing the lead water service line in conjunction with water main replacements or after an emergency replacement of the water main or lead water service line;
- (2) Lead Water Service Line Replacement Payment Assistance Program. In cases where the water service line on public property is not lead, the District has budgeted appropriated funds to assist all District homeowners to provide 50% to 100% of the costs, depending on their household income, to pay for the lead water service line replacement on private property. This provision was funded by the District's budget and included in the Authority's Fiscal Year 2022 budget. Under this program, the Authority is responsible for certifying that the work is done, and paying the contractor from funds provided by the District;
- (3) Voluntary Lead Service Pipe Replacement Program. In cases when there are lead service lines on private property and in public space, but the District's funds are insufficient to cover the costs, or where the Authority does not have any planned activities to replace water mains and the lead water service lines connected to them within two years, or the street is not under a DDOT moratorium, the property owner may participate in the Authority's Voluntary Lead Service Pipe Replacement program. Under this program, the property owner agrees to pay the costs for the replacement of the lead pipe on private property and the Authority will replace the pipe in the public space at the same time; and
- (4) Education. Creates a new series of outreach, education and disclosure requirements for home sellers and real estate agents to increase awareness of lead service issues.

As of the date of this Official Statement, the District has proposed funding for both these programs in the Fiscal Year 2022 Budget, but their implementation will not have a material impact on the Authority or its finances.

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 have 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 wastewater 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 2003, the Aqueduct together with the Fairfax County Water Authority and the WSSC founded the Potomac River Drinking Water Source Protection Partnership to further the goals of watershed protection. In 2014, the Aqueduct and the Authority collaborated with the Metropolitan Washington Council of Governments to pilot a web-based regional source water assessment tool (“WaterSuite”) building on the static 2002 assessment prepared by the Interstate Commission on the Potomac River Basin. The WaterSuite tool emphasizes chemicals stored throughout the watershed and draws upon federal, state, and local databases for insights into potential chemical contaminants. The physical security of the Aqueduct facilities that (i) collect water from the Potomac River, (ii) process the water to Safe Drinking Water Act standards, and (iii) deliver the water into the Authority’s distribution system are all maintained via a wide variety of means including gated facilities, armed guards, video surveillance, and employee protocols. All Aqueduct employees have current federal background investigations that are required for their employment. The electronic business records of the Aqueduct are handled on systems accredited by the Department of Defense to give a high assurance of control over unauthorized intrusion. The industrial control systems that function to control treatment plant processes and data transfer operate in a contained environment (i.e., no connection to the Internet). These systems are also accredited by Department of Defense and Department of the Army agencies and are constantly monitored for possible compromise. The Aqueduct is currently upgrading all elements of its industrial control system for both increased reliability as well as security.”

For information regarding the cyber security measures taken to protect the Authority and the Water and Waste Water Systems, see “THE AUTHORITY – Risks from Unexpected Events – Ensure a Safe and Reliable Computing Environment.”

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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	Mandates ²	Health and Safety ³	Board Policy ⁴	Potential Failure ⁵	High Profile Good Neighbor ⁶	Good Engineering/High Payback ⁷	Good Engineering/Lower Payback ⁸	Total
FY 2022	154,484	15,029	150,006	37,778	1,971	139,063	69,176	\$567,507
FY 2023	106,827	55,821	187,621	45,608	964	161,338	88,825	647,004
FY 2024	66,090	22,047	155,503	45,047	699	216,669	162,579	668,633
FY 2025	85,968	7,998	144,127	51,131	1,736	193,652	135,302	619,914
FY 2026	147,762	11,743	134,922	37,683	1,189	237,784	164,842	735,924
FY 2027	165,363	23,506	120,645	57,975	1,621	247,881	205,919	822,911
FY 2028	214,664	12,922	130,675	48,912	2,712	191,334	181,967	783,185
FY 2029	143,867	4,455	140,653	27,111	-	188,048	165,022	669,155
FY 2030	39,054	2,680	68,989	40,732	-	176,511	168,563	496,528
FY 2031	-	<u>2,516</u>	<u>68,037</u>	<u>19,560</u>	-	<u>124,905</u>	<u>194,121</u>	<u>409,139</u>
Total	\$1,124,077	\$158,715	\$1,301,178	\$411,536	\$10,891	\$1,877,185	\$1,536,316	\$6,419,899
% of Total	17.5%	2.5%	20.3%	6.4%	0.2%	29.2%	23.9%	

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.

Source: Authority records.

Since its creation in 1996 through September 30, 2021, the Authority has expended approximately \$7.6 billion, on a cash disbursement basis, for capital improvement projects, including \$2.7 billion for projects at Blue Plains, \$1.1 billion for Water System infrastructure projects, \$2.5 billion for the DC Clean Rivers Project and combined sewer projects, \$474 million for sanitary sewer projects, \$49 million for stormwater projects, \$106 million for non-process facilities, \$113 million for meter replacement/Automated Meter Reading ("AMR") projects, \$304 million for capital equipment, and \$327 million for projects at the Aqueduct.

The Authority estimates the cost of the Fiscal Year 2022 - 2031 CIP at \$6.42 billion on a cash disbursement basis, including approximately \$1.21 billion for wastewater treatment projects at Blue Plains, \$1.22 billion for the DC Clean Rivers Project and combined sewer projects (Combined Sewer LTCP), \$1.83 billion for Water System infrastructure projects, \$1.36 billion for sanitary sewer projects, \$65.2 million for stormwater projects, \$102.2 million for non-process facilities, \$344.3 million for capital equipment, \$253.8 million for Washington Aqueduct Division projects and \$31.0 million for meter replacement/AMR projects. [update: The Board approved the CIP on **January 6, 2022.**]

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

**Table 5. Fiscal Year 2021-2031 Capital Improvement Program
Sources and Uses of Capital Funds
Fiscal Years ended/ending September 30
(\$ in thousands)^{1,2}**

	Actual(s) ³	Projected										Total (FY22-FY30)
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
BEGINNING BALANCE	<u>\$266,205</u>	<u>\$151,031</u>	<u>\$281,405</u>	<u>\$130,954</u>	<u>\$135,418</u>	<u>\$172,196</u>	<u>\$141,501</u>	<u>\$117,153</u>	<u>\$127,697</u>	<u>\$116,730</u>	<u>\$155,761</u>	<u>\$1,529,846</u>
SOURCES OF FUNDS:												
Proceeds from Rev. Bonds	\$ -	\$400,000	\$164,519	\$297,958	\$239,112	\$240,130	\$313,136	\$359,667	\$230,708	\$100,000	\$100,000	\$2,445,230
Proceeds from WIFIA Loan	\$ -	30,000	30,000	30,000	30,000	30,000	-	-	-	-	-	150,000
Environmental Impact Bond Proceeds	\$ -	\$(25,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$(25,000)
Curing Pad and Solar	\$ -	\$ -	1,165	2,338	3,762	3,949	4,033	5,336	3,501	3,501	3,458	31,044
System Availability Fee (SAF)	5,403	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	77,000
Transfer from Operations (CRIAC)	49,158	52,095	52,514	63,348	64,566	69,355	74,915	77,968	86,665	90,424	91,232	723,083
Transfer from Operations (Pay-Go)	\$90,014	104,659	114,315	111,580	126,228	147,996	162,641	172,177	191,517	223,202	254,019	1,608,335
Federal Grants - Infrastructure Funding	-	8,855	37,594	44,828	46,796	47,530	44,183	15,961	15,923	21	-	261,689
EPA Grants /FEMA Grants/DC	30,568	42,161	27,101	30,280	27,280	13,853	13,853	13,853	13,853	13,853	13,853	209,942
CSO Grants	8,002	-	-	-	-	-	-	-	-	-	-	-
Wholesale Customer Capital Contributions	70,648	86,872	90,690	114,647	110,052	143,217	175,947	138,370	106,588	96,107	94,955	1,157,445
Interest Income	<u>1,151</u>	<u>2,263</u>	<u>3,304</u>	<u>3,849</u>	<u>1,196</u>	<u>1,501</u>	<u>2,153</u>	<u>2,698</u>	<u>1,730</u>	<u>750</u>	<u>750</u>	<u>20,554</u>
Total Sources	<u>\$254,946</u>	<u>\$709,966</u>	<u>\$528,902</u>	<u>\$706,529</u>	<u>\$656,692</u>	<u>\$705,230</u>	<u>\$798,560</u>	<u>\$793,730</u>	<u>\$658,186</u>	<u>\$535,559</u>	<u>\$565,967</u>	<u>\$6,659,322</u>
USES OF FUNDS:												
Water Projects	\$55,800	\$165,313	\$227,116	\$218,339	\$194,451	\$192,665	\$192,324	\$124,683	\$120,842	\$1,829,431		\$1,193,339
Blue Plains Projects	72,007	85,979	78,574	117,545	116,402	132,436	165,309	129,249	121,373	126,711	141,086	1,214,664
Sanitary Sewer Projects	28,204	68,086	103,383	150,827	130,968	160,400	205,946	183,825	149,255	129,368	80,070	1,362,128
Combined Sewer	1,159	4,919	10,929	11,240	19,218	14,179	6,396	5,459	9,306	12,350	6,306	100,302
Combined Sewer LTCP	160,358	147,347	106,774	66,064	85,968	147,762	165,363	214,664	143,867	39,054	-	1,116,863
Stormwater Projects	1,831	7,029	11,526	5,553	5,813	4,986	6,157	4,620	4,498	6,329	8,722	65,233
Non Process Facilities	21,508	31,439	12,052	28,160	14,422	6,620	3,351	1,778	387	2,000	2,000	102,209
Washington Aqueduct Division Projects	9,588	16,875	59,628	34,749	17,164	27,825	37,122	14,723	11,940	19,831	13,911	253,768
Capital Equipment	19,571	37,440	33,921	33,056	32,207	36,571	38,713	33,103	33,103	33,103	33,104	344,321
Meter Replacement / AMR / CIS / ERP	<u>14</u>	<u>3,079</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>30,979</u>
Total Uses	<u>\$370,120</u>	<u>\$567,506</u>	<u>\$647,003</u>	<u>\$668,633</u>	<u>\$619,914</u>	<u>\$735,925</u>	<u>\$822,908</u>	<u>\$783,186</u>	<u>\$669,153</u>	<u>\$496,529</u>	<u>\$409,141</u>	<u>\$6,419,898</u>
Sources Minus Uses	(115,174)	142,460	(118,101)	37,896	36,778	(30,695)	(24,348)	10,544	(10,967)	39,030	156,826	239,424
Capital Contingency Reserve for LTCP	23,563	12,086	32,350	33,432	30,000	30,000	30,000	30,000	30,000	30,000	30,000	311,431
Use of Capital Contingency Reserve for LTCP	-	(12,086)	(32,350)	(33,432)	-	-	-	-	-	-	-	(77,868)
Sources Minus Uses Net of Reserves	(138,738)	<u>130,374</u>	(150,451)	<u>4,464</u>	<u>6,778</u>	(60,695)	(54,348)	(19,456)	(40,967)	<u>9,030</u>	<u>126,826</u>	<u>161,556</u>
Ending Balance	<u>\$151,031</u>	<u>\$281,405</u>	<u>\$130,954</u>	<u>\$135,418</u>	<u>172,196</u>	<u>\$141,501</u>	<u>\$117,153</u>	<u>\$126,697</u>	<u>\$116,730</u>	<u>\$155,761</u>	<u>312,587</u>	<u>\$1,691,402</u>

¹ Totals may not add due to rounding.

² The Authority sets aside capital cash on hand from the above sources to serve as a contingency for the Clean Rivers Project. The Ending Balance shown above in each year is inclusive of these funds; in FY 2022 through FY 2024, funds are anticipated to be drawn down before being replenished in FY 2025.

³ Preliminary results, unaudited.

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 \$1.83 billion 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, such as fire hydrants, valves and service connections) DDOT-related water main projects, and significantly enhanced funding for the lead service line replacement program for the water distribution system. 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 that was completed in 2018; (vii) an upgrade of one of the influent pumping facilities, which was 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 \$1.21 billion, which includes approximately \$901 million in disbursements for liquid, plant-wide and solids processing projects such as major improvements to filtration and pumping facilities, and \$78 million for the ENRF program projects such as the Tunnel Dewatering Pump Station and Enhanced Clarification Facility.

Sanitary Sewer Projects. The CIP includes approximately \$1.36 billion 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 \$1.22 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

stormwater 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 stormwater runoff before it enters the sewer system. Examples of green infrastructure technologies include rain gardens, porous pavements, bioswales, 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 2021) of \$2.8 billion.

Stormwater Projects. The projected disbursements for the stormwater service area in the CIP are approximately \$65 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 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 \$102 million in projected disbursements for facility land use projects. In fiscal year 2019, the Authority completed its Administrative Headquarters Building at the Main & O Street Campus and relocated over 300 employees into the new LEED Platinum facility.

Washington Aqueduct Projects. The 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. The CIP includes approximately \$254 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 \$344 million for major information technology projects, vehicle fleet upgrades, and large equipment projects at Blue Plains and the major water and sewer pumping stations.

Meter Replacement Projects. The CIP includes approximately \$31 million for ongoing meter replacements and continued automated meter reading system improvements and upgrades to the AMR equipment. These improvements are 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.

CIP Financing Sources

The Authority expects to finance the CIP from multiple sources including (i) revenue bonds, (ii) income from certain fees and charges, pay-as-you-go funds and interest income (all of which constitute Revenues under the Indenture), as well as (iii) federal and other grants and wholesale customer contributions (which are excluded from the definition of Revenues under the Indenture). The CIP financing sources are summarized below.

Revenue Bonds/Commercial Paper Notes. The Authority expects to finance approximately \$2.57 billion, or 38.6%, of the sources of funds 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 [January 1, 2022], approximately \$28.8 million of the Series B CP Notes and \$29.2 million of the Series C CP Notes were outstanding. 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.

WIFIA Loan. DC Water has secured a long-term, low interest loan (the "WIFIA Loan") for up to \$154 million for infrastructure repair, rehabilitation and replacement pursuant to the Water Infrastructure Finance and

Innovation Act of 2014 (“WIFIA”), a federal credit program administered by United States Environmental Protection Agency (“USEPA”). The interest rate on the WIFIA Loan is 1.87%; principal payments are assumed to begin in Fiscal Year 2028 and the final repayment is in Fiscal Year 2060. The Authority currently expects to finance \$150 million of the CIP, or 2.3%, from the proceeds of the WIFIA Loan.

Solar Energy and Curing Pad. Solar power is being generated at DC Water facilities through the installation of photovoltaic solar panels for purposes of green energy and solar renewable energy credits (SREC’s). DC Water will receive revenue from the sale of SREC’s to power companies so those companies can meet their renewable energy obligations. A much smaller portion of the value of the initiative is the energy savings. For example, the Blue Plains Phase I solar project began generating power in June of 2021. Based on current generation, the estimated savings are \$440,000/year.

The Curing Pad is a building that DC Water can use to produce and store a high value Bloom product, cured Bloom, that has a high demand and commands a very high price compared with uncured Bloom. This facility will generate revenue from the increased volume of sale of this higher value product. The Authority currently expects to finance \$31 million, or 0.5%, of the sources of funds with revenues or net savings generated by Solar Energy and the Curing Pad.

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 finance \$77 million, or 1.16%, of the sources of funds with revenues generated by the SAF.

Clean Rivers Impervious Area Charge. The Authority currently expects to finance about \$723 million, or 10.86%, of the sources of funds with revenues received from the Clean Rivers Impervious Area Charge (“CRIAC”), which was first implemented in Fiscal Year 2009 to recover the costs of the DC Clean Rivers Project. 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 \$1.61 billion, or 24.15%, of the sources of funds 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.

Interest Income on Bond Proceeds. The Authority estimates that \$21 million in interest income, or 0.31%, 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.

Federal and Other Grants. The Authority expects to finance approximately \$472 million, or 7.08%, of the sources of funds 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. In fiscal years 2019 through 2021, the Authority received \$8.0 million in grant funding for the DC Clean Rivers Project, and in Fiscal Years 2016 through 2018, the Authority received an average of \$14 million each year for such funding. The Authority also expects to be reimbursed by the District for certain capital investments. Federal and other grants do not constitute Revenues under the Indenture.

Wholesale Customer Contributions. The Authority expects to finance approximately \$1.16 billion, or 17.38%, of the sources of funds 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. Wholesale customer contributions do not constitute Revenues under the Indenture.

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 2014 through Fiscal Year 2018 was \$50,872,045, or 5.7% of the total original value of the contracts of \$897,320,435 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, 2021, the System had 126,401 active, metered water and wastewater accounts (30 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, 2021 is set forth in Table 6.

Table 6. Customer Categories and Accounts

<u>Customer Category</u>	<u>Number of Accounts</u>	<u>% of Total Operating Revenue</u>
Residential, Multifamily, Commercial	124,353	62%
Governmental (Federal, District and D.C. Housing Authority) ¹	2,041	18
Wholesale	7	17
Total	126,401	97% 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 3% 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 2021, the residential, commercial and multifamily customer revenue represented approximately 56% 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 the last five fiscal years. In Fiscal Year 2021, the ten largest commercial customer accounts represented 2.90% of total operating revenues.

Table 7. Ten Largest Commercial Customers

	2021	2020	2019	2018	2017
Howard University	\$3,065,479	\$3,710,923	\$3,898,131	\$3,879,664	\$3,957,007
American University	2,904,844	987,647	1,005,881	1,004,977	750,235
William C Smith & Co	2,767,263	2,496,772	2,441,968	2,078,614	2,226,722
Washington Hospital Center	2,728,267	2,455,804	2,078,916	2,003,551	1,624,588
Georgetown University	2,434,834	1,958,462	1,875,409	2,118,763	1,438,247
George Washington University	2,285,071	3,268,007	2,998,442	2,522,689	2,477,970
Horning Brothers	2,276,290	2,076,006	1,697,812	-	-
Children's Hospital	1,451,942	1,279,259	-	831,854	-
Gallaudet University	1,278,783	-	-	-	-
Medstar-Georgetown Medical Center	1,166,894	1,031,263	-	850,673	807,540
Cafritz	-	1,092,288	-	-	-
Amtrak	-	-	1,924,967	1,046,179	983,224
Catholic University	-	-	1,174,396	-	-
Georgetown University Hospital	-	-	1,010,696	-	808,884
Metropolitan Washington Airports Authority	-	-	-	1,280,248	1,068,877
Total	\$22,359,669	\$20,356,430	\$20,106,617	\$17,617,212	\$16,143,294
% of Total Operating Revenues	2.90%	2.64%	2.85%	2.57%	2.51%

Source: DC Water Department of Customer Service

Table 8 reflects the Authority's ten largest government customers in last five fiscal years. In fiscal year 2021, the ten largest government customers represented 7.77% of total operating revenues.

Table 8. Ten Largest Government Customers

	2021	2020	2019	2018	2017
Bolling Air Force Base	12,567,892	4,798,312	4,279,384	4,187,710	3,115,393
D.C. Housing Authority	\$11,345,071	\$9,921,080	\$9,203,222	\$5,176,951	\$7,492,820
U.S. General Services Administration	10,816,058	9,536,411	7,870,446	8,096,034	7,092,342
Federal Naval Research Lab	4,707,425	3,553,343	2,779,271	2,209,408	1,853,214
Smithsonian Institution	4,146,701	6,138,774	4,967,305	4,683,524	3,635,763
Department Defense VA	4,018,325	4,003,435	2,834,531	2,082,125	-
D.C. Board of Education	3,876,997	2,908,559	1,866,303	1,569,405	2,497,561
U.S. Congress	3,391,970	6,157,111	5,447,393	5,061,870	4,597,331
National Park Service	2,839,593	2,707,685	2,342,203	3,298,927	4,621,035
D.C. Recreation and Parks	2,159,393	-	-	-	1,604,350
Department of the Navy	-	1,894,810	1,951,907	1,732,073	1,662,225
Total	\$59,869,426	\$51,619,519	\$43,541,966	\$38,098,027	\$38,172,034
% of Total Operating Revenues	7.77%	6.70%	6.17%	5.57%	5.93%

Source: DC Water Department of Customer Service

Customer Demand

Table 9 shows the average percentage of annual water consumption by customer category from Fiscal Year 2017 through Fiscal Year 2021. The results illustrate the diversification of the Authority's customer base.

Table 9. Average Annual Consumption By Customer Category
Fiscal Years 2017 – 2021
(millions of Ccf)

Customer	Average Annual Consumption	% of Total Consumption
Residential Single-Family	6.89	20.7%
Commercial	11.16	33.6
Residential Multi-Family	8.87	26.7
D. C. Municipal Government	1.02	3.1
Federal Government	4.47	13.5
D. C. Housing Authority	0.80	2.4
Total Consumption	33.21	100.0%

Source: Authority Records. Totals may not add due to rounding.

Table 10 shows projected annual consumption for the Authority's customer categories for Fiscal Years 2022 through 2026. 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)

	2022	2023	2024	2025	2026
Residential Single-Family	6.55	6.49	6.42	6.36	6.30
Commercial ³	9.01	8.92	8.83	8.74	8.65
Residential Multi-Family	9.17	9.08	8.99	8.90	8.81
D. C. Municipal Government ⁴	1.18	1.17	1.16	1.15	1.14
Federal Government	4.77	4.72	4.67	4.62	4.58
D.C. Housing Authority	0.80	0.79	0.78	0.78	0.77
Total Consumption	31.48	32.69	30.85	30.54	30.24

¹ Totals may not add due to rounding.

² Total water consumption in Fiscal Years 2022 - 2026 reflects the assumption of a 1% annual decline.

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

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

Source: Amawalk

Some fluctuation in consumption can occur in a given year due to variations in weather conditions and other factors such as billing adjustments. In Fiscal Years 2018 and 2019, total consumption decreased by 0.9% and 1.8%, respectively, versus the prior year. Consumption in Fiscal Years 2020 and 2021 was impacted by the pandemic, with significant decreases in non-residential customer usage compared to previous years. Total consumption in Fiscal Years 2020 and 2021 was 32.432 million Ccf and 31.796 million Ccf, respectively, representing declines from prior years of 3.0% and 2.0%. See “– Rate-Setting Authority” for additional information.

The Authority anticipates that consumption will total 31.48 million Ccf in Fiscal Year 2022, representing a decrease of 3.2% from the prior year. The Authority assumes that long-term total water consumption will decline at the rate of ___% per year beginning in Fiscal Year 2020, 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) was 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 wastewater revenues within the District are estimated to comprise about 61% of total revenues (excluding the PILOT/ROW Fee) in Fiscal Years 2022 through 2026. The Authority evaluates its water consumption projections annually in connection with its budget preparations and more frequently if the need arises.

Rate-Setting Authority

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 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.

Retail Rates, Fees and Charges

The Authority adopted several changes to its retail rate structure that 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 retail rates, fees and charges, see "-- Components of Retail Rates and Charges" and "-- Historical and Projected Retail Rates" below.

Prior to Fiscal Year 2017, the Authority adopted its budgets and its retail rates and charges on an annual basis. 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) and in calendar year 2020 the Board adopted (i) rates and charges to be effective October 1, 2020 (Fiscal Year 2021) and (ii) rates and charges to be effective October 1, 2021 (Fiscal Year 2022). The benefits of the multi-year rate setting include: greater revenue certainty, increased budget discipline, and better alignment between revenues and expenditures. The retail rates and charges are expected to change each year. See "-- Historical and Projected Retail Rates" and "THE AUTHORITY – Authority's Relationship to the District." If the Authority determines that revenues are materially less than expected 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.

In calendar year 2019, the Authority modified the adopted wastewater rate and the CRIAC: the wastewater rate for Fiscal Year 2020 increased from the adopted rate and the CRIAC decreased from the adopted rate, with the resulting revenues being relatively unchanged. Further adjustments in the recovery of costs through the wastewater rate and the CRIAC are reflected in the actual and projected rates after Fiscal Year 2020.

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 7.6% of the Authority's total annual revenues during Fiscal Year 2022 through Fiscal Year 2026 (excluding the PILOT/ROW Fee and net of reconciliations of Federal billings).

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:

- iii. A previous executive order 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.
- iv. 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.
- v. There have been significant adjustments made to federal bills as a result of property sales and transfers between the federal and District governments.
- vi. 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 10.8% of the Authority’s total annual revenues during Fiscal Year 2022 through Fiscal Year 2026 (excluding the PILOT/ROW Fee).

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

The primary retail rates and fees include water and wastewater charges, the clean rivers impervious area charge, the PILOT/ROW Fee and the stormwater fee.

Water and Wastewater Charges

Water and Wastewater Consumption Rates. Water and wastewater consumption 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. In Fiscal Year 2015, 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 a cost of service study (the “2015 COS Study”). Based on the findings of the 2015 COS Study, the Authority’s management recommended a restructuring of the rates, charges and fees to the Board to include water rate classes for Residential, Multi-Family and Non-Residential customers. Wastewater rates remain uniform for all customers. The Board adopted this new rate structure for Fiscal Year 2016, effective October 1, 2015.

The Authority undertakes a cost of service study every three years to ensure that its rates are appropriately capturing actual expenditures. The cost of service study prepared by RFC in 2018 (the “2018 COS Study”) recommended no changes to the water rate structure and classes in Fiscal Year 2019, but did recommend decreases in water rates, an increase to the wastewater rate and a reduction in the CRIAC to better align rates and revenues with the cost of providing services. Subsequent analyses have resulted in further adjustments to the costs recovered through wastewater rates and the CRIAC. Table 12 presents historical rates and charges.

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 was increased in Fiscal Year 2021 and in Fiscal Year 2022; it is assumed to remain unchanged in Fiscal Years 2023 through 2026, providing \$24.1 million in revenue per year each year.

Water System Replacement Fee. The Authority implemented the meter-based Water System Replacement Fee in Fiscal Year 2016 in order to recover the cost of the renewal and replacement program for water infrastructure. The Water System Replacement Fee is assumed to remain unchanged in Fiscal Years 2023 through 2026; generating \$39.7 million in revenue per year.

Clean Rivers Impervious Area Charge

Overview. 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 \$2.8 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, 2021 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, 2021)
Tier 1	100 – 600	0.6	18,693
Tier 2	700 – 2,000	1.0	81,174
Tier 3	2,100 – 3,000	2.4	6,251
Tier 4	3,100 – 7,000	3.8	2,793
Tier 5	7,100 – 11,000	8.6	141
Tier 6	11,100 and more	13.5	68

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.

CRIAC rates in Fiscal Year 2020 were lower than in the prior year and wastewater rates were higher due to both: a) increases in the cost of service, and b) an allocation of a portion of the costs of the LTCP to wastewater charges in lieu of the CRIAC. The allocation of a portion of LTCP costs to wastewater charges is based on an analysis prepared by the Authority which estimates that sanitary sewage comprises 37% of combined wastewater and stormwater. The Authority decided to allocate a portion of the LTCP costs to wastewater charges in three stages, beginning with an 18% allocation in Fiscal Year 2020, followed by 28% and 37% allocations in Fiscal Years 2021 and 2022, respectively. Allocated LTCP costs in Fiscal Year 2023 are expected to remain at the 37% level. Amawalk reviewed the Authority’s analysis and found it to be reasonable and consistent with industry practice. As a result of the changes in LTCP cost allocation, the CRIAC rate in Fiscal Year 2020 was \$20.94 per ERU, a decrease of 9.0% from the prior year. In Fiscal Years 2021 and 2022, with an increasing share of LTCP costs being assigned to the

wastewater rate instead of the CRIAC, the CRIAC rates are \$19.52 and \$18.40 per ERU, respectively. In Fiscal Year 2023, the projected CRIAC rate is \$18.14 per ERU.

CRIAC Incentive Program. 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 wastewater 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. Effective October 1, 2019 (Fiscal Year 2020), the Authority strengthened the CRIAC Incentive Program to provide a 20% maximum incentive credit. The actual credit amount is calculated based upon a formula provided by the DOEE.

CRIAC 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. The Board adopted the expansion of the CAP for eligible single-family residential accounts and individually metered accounts to include a fifty percent (50%) or seventy-five percent (75%) credit of the monthly billed CRIAC depending on whether the customer qualifies under CAP, CAP2 or CAP3. Non-profit organizations may qualify for a credit of up to 90% of the CRIAC portion of the water bill. The CRIAC credit was first implemented in Fiscal Year 2017. See “– Customer Assistance Programs” below.

PILOT/Right of Way Occupancy Fee

These fees recover the cost of the PILOT and Right of Way fees (collectively, the “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, 2021 (i.e., for Fiscal Year 2022), the Authority’s PILOT/ROW Fee is \$0.75 per Ccf. The PILOT/ROW Fee is expected to increase gradually each year through Fiscal Year 2026.

Stormwater Fee

The Authority’s retail water and wastewater bills also include a stormwater fee levied on behalf of the District government, which the Authority transfers to DOEE on a pass-through basis. The stormwater fee is charged as a separate line item on retail customer bills. 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 – Authority’s Relationship to the District.” The stormwater fee charged to retail customers is \$2.67 per ERU, which rate has been in effect since October 1, 2016. [The stormwater fee is expected to remain the same for Fiscal Years 2023 through 2026.]

Although the Authority no longer administers the program, pursuant to the July 25, 2008 MOU with DOEE, the Authority retains a portion of the stormwater fee revenues to cover its share of District stormwater expenditures. See “THE AUTHORITY – Authority’s Relationship to the District – *Memoranda of Understanding*” and “FINANCIAL OPERATIONS – System Revenues – *Stormwater Revenues*.” The stormwater fees that are transferred to the District do not constitute Revenues under the Indenture, however, the stormwater fee revenues that are retained by the Authority to cover its share of stormwater expenditures are considered non-operating revenues of the Authority and do constitute Revenues under the Indenture.

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.

Table 12 sets forth historical water and wastewater rates and the CRIAC of the Authority. Table 13 sets forth the adopted and projected water consumption and wastewater usage rates as well as the CRIAC of the Authority

for Fiscal Years 2022 through 2026. Revenue resulting from the CRIAC will recover the majority of the cost of the LTCP for the period of Fiscal Year 2022 through Fiscal Year 2026.

Federal government customers in Virginia pay the Arlington County retail rate, which is currently [confirm: \$3.67 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 Wastewater, Other Charges are \$ Per Unit as Noted)

Fiscal Year	Water Consumption Rate	Wastewater Usage Rate	Combined Rate	Water and Wastewater Percent Increase	CRIAC Rate (Per ERU)	Meter Charge (Per 5/8" Meter)³	Water System Replacement Fee (Per 5/8" Meter)³
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				
2018 ²							
Residential – 0-4 Ccf	3.39	6.00	9.39	5.0%	25.18	3.86	6.30
Residential - >4 Ccf	4.26	6.00	10.26				
Multi-Family	3.80	6.00	9.80				
Non-Residential	4.40	6.00	10.40				
2019 ²							
Residential – 0-4 Ccf	2.91	7.75	10.66	13.5%	23.00	3.86	6.30
Residential - >4 Ccf	3.90	7.75	11.65				
Multi-Family	3.37	7.75	11.12				
Non-Residential	4.05	7.75	11.8				
2020 ²							
Residential – 0-4 Ccf	3.06	8.89	11.95	5.4%	20.94	3.86	6.30
Residential - >4 Ccf	4.10	8.89	12.99				
Multi-Family	3.54	8.89	12.43				
Non-Residential	4.25	8.89	13.14				
2021 ²							
Residential – 0-4 Ccf	3.49	9.77	13.26	6.6%	19.52	4.96	6.30
Residential - >4 Ccf	4.50	9.77	14.27				
Multi-Family	3.96	9.77	13.73				
Non-Residential	4.65	9.77	14.42				

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 Wastewater, Other Charges are \$ Per Unit as Noted)

	Units	Current	Projected ²	
		2022	2023	2024
Water Rates				
Residential - 0-4 Ccf	Ccf	3.63	3.94	4.24
Residential - >4 Ccf	Ccf	4.74	5.14	5.53
Multi-Family	Ccf	4.15	3.54	3.81
Non-Residential	Ccf	4.91	4.25	4.57
Sewer Rates	Ccf	10.64	11.54	12.41
Water & Sewer % Change ³	%	6.7%	8.5%	7.5%
CRIAC	ERU	18.40	19.58	24.07
Meter Charge ⁶	5/8" Meter	7.75	7.75	7.75
Water System Replacement Fee ⁴	5/8" Meter	6.30	6.30	6.30

¹ Rates and charges are billed monthly.

² Rates for Fiscal Years 2023 and 2024 are projected and subject to change.

³ Percent increase reflects the overall average increase for all customers; the increases for individual customers vary by customer class and consumption.

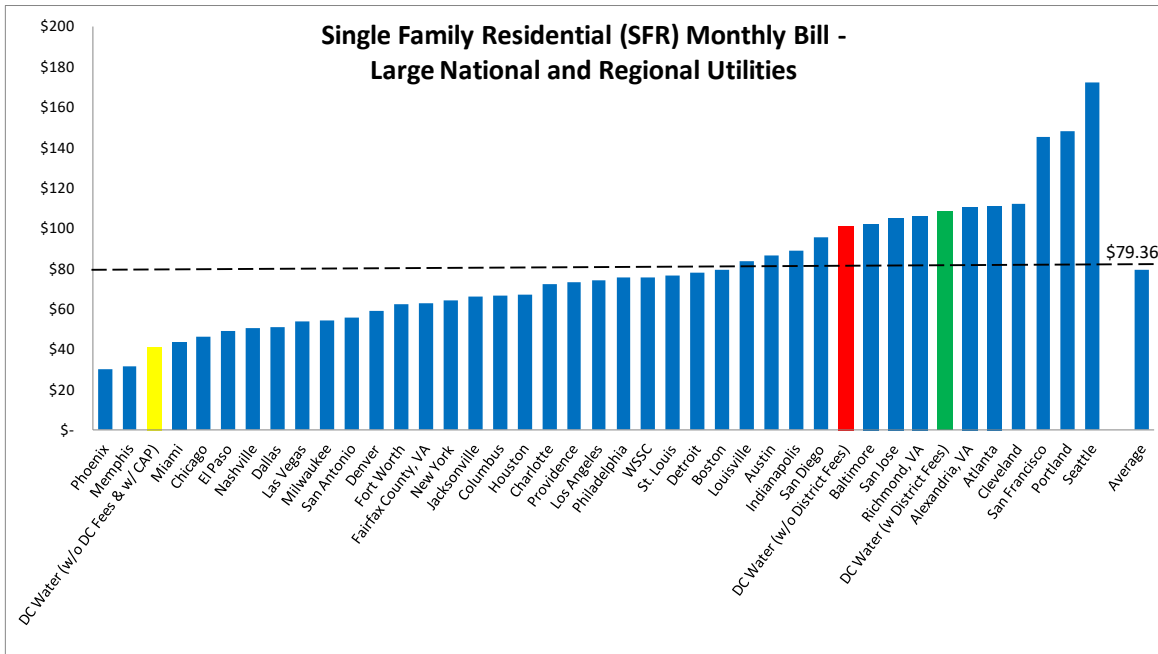
⁴ The Meter Charge and the Water System Replacement Fee as shown reflect a customer with a 5/8" meter. The Charge and the Fee vary by the size of the meter.

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 2022 rate and fee charges; rates for other utilities are as of December 1, 2021. The Authority's Fiscal Year 2022 rate and fee charges are shown both with and without the pass-through of the District's PILOT/ROW Fee in the amount of \$0.75 per Ccf, and the DOEE residential stormwater rate of \$2.67 per ERU per month.

The Authority offers assistance to qualifying low income ratepayers through its Customer Assistance Program (CAP). Table 14 also illustrates the monthly bill for a CAP customer with average Single Family Residential characteristics.

[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.

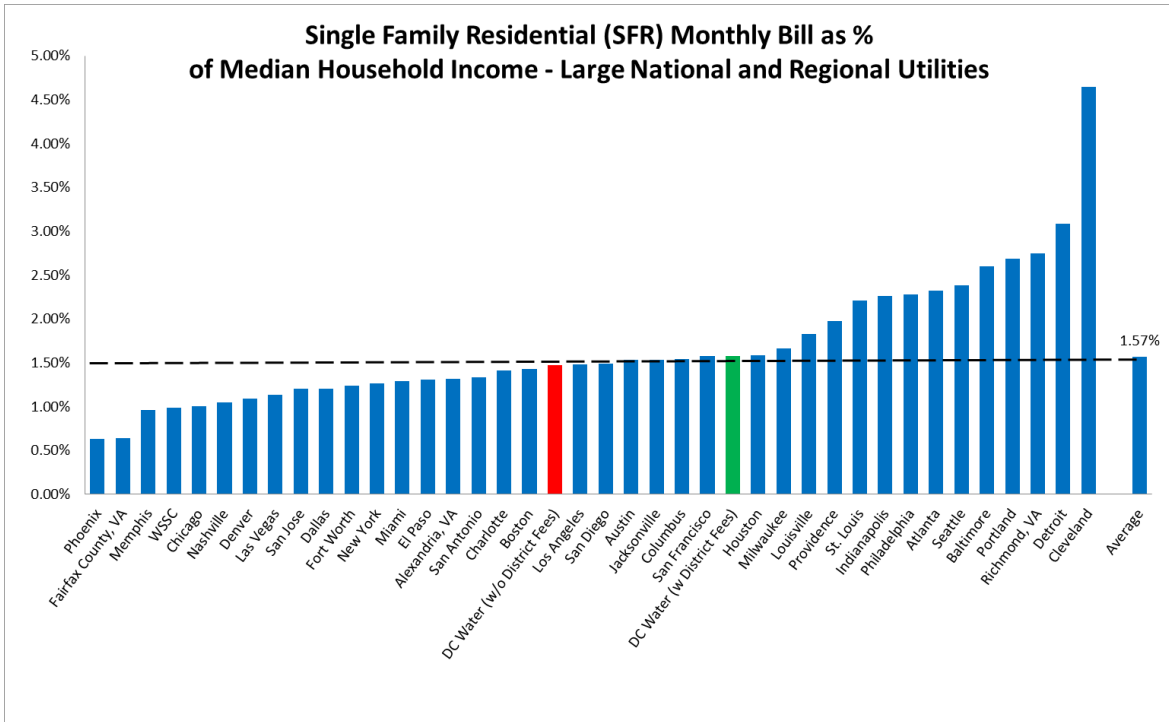
² User charges are based upon information provided by the identified cities and standardized assumptions regarding water consumption, wastewater discharge, stormwater drainage area and other factors. Actual charges in each city will vary in accordance with local usage patterns. There may be significant 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. Wastewater 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/wastewater services. Water/wastewater 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 [Update] Charges for all cities reflect rate schedules in effect on July 1, 2019.

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 Reflects rates and fee in place as of July 1, 2019. [Update]

Source: Amawalk

Collections

For information regarding the COVID-19 pandemic’s impact on collections see “COVID-19 IMPACT, RESPONSE AND RISK FACTORS – Financial Impact – 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 the AMR system, 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. The Authority typically maintains a 90-day receivable balance of less than 2.0% of Operating Reserves. 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 enhanced coordination efforts with other District agencies.

In the absence of pandemic conditions, the Authority’s collection program includes: (i) assessing customers a 10% late fee if their bill is not paid by 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 delinquent 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 AMR system 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. [Update: There is one government delinquency to report, which is related to DC Government/Municipal property.] It is noted that collection efforts were suspended in October 2017 in preparation for the implementation of the new Customer Information System. Collection efforts resumed in July 2018.

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

<u>As of September 30,</u>	<u>Amount¹</u>	<u>Percent of Operating Revenue</u>
2017	8.4	1.4
2018	13.4	2.1
2019	10.6	1.5
2020	17.9	2.5
2021	26.3	3.7

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, and has sought payment for these services and fees since 2010. The parties were unable to resolve this matter over the years, and in January 2018, the Authority filed a lawsuit against the Soldier’s Home to recover payments for sewer service charges from 2010 to present. [Update] The amount of unpaid charges sought is \$13.7 million. Other than the free water service provided to the Soldier’s Home, there are no other exempt accounts, nor does the Authority 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 and Serving People by Lending A Supporting Hand (“S.P.L.A.S.H.”).

Customer Assistance Program. 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 water and sewer services
2011	Provide a discount of the first 4 Ccf of PILOT/ROW Fee
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)
2018	Provide a discount of 3 Ccf per month of water and sewer services (excluding PILOT/ROW) for expanded income guidelines
2018	Provide a 50% credit on the billed Clean Rivers Impervious Area Charge (CRIAC) for expanded income guidelines
2018	Provide a 75% credit on the billed Clean Rivers Impervious Area Charge (CRIAC) for eligible customers under expanded income guidelines (excludes water and sewer services credits)
2018	Provide up to 90% credit on the billed Clean Rivers Impervious Area Charge (CRIAC) for eligible non-profit organizations
2019	Enacted CAP II and CAP III program for customers not eligible for the CAP program
2020	Enacted Emergency Residential Relief Program for residential customers who have delinquent bills during the pandemic. In Fiscal Year 2020, the Authority's Board adopted an increase in the CAP program maximum credit from 50% to 75%, effective October 1, 2020.
2021	Enacted Multi-Family Assistance program to assist tenants during the pandemic.

Table 17A sets forth the number of customers assisted and the total discount provided through the CAP discount since Fiscal Year 2017. [Update description of income based discount programs:] The projected revenues of the Authority take into consideration the discounts provided to low-income customers under the CAP. As of Fiscal Year 2019, the Authority enacted an expanded program (CAP II) for low-income residential customers who do not qualify for CAP with a household income up to 80% of the Area Median Income (AMI). Eligible customers receive a discount of up to 3 Ccf per month for water and sewer services and a 50% discount for the CRIAC. Additionally, a new District-funded program (CAP III) will provide benefits to DC Water customers with household income greater than 80% and up to 100% Area Median Income (AMI) who do not qualify for CAP or CAP II. An eligible customer under CAP III receives a 75% discount for the CRIAC.

Table 17A. Customer Assistance Program Discount

<u>Fiscal Year</u>	<u>Customers Assisted</u>	<u>Water/Wastewater PILOT/ROW (\$)</u>	<u>WSRF Discount (\$)¹</u>	<u>CRIAC Credit (\$)¹</u>	<u>Total Amount</u>
2017	4,244	810,295	195,328	129,674	1,135,297
2018	4,324	737,199	176,403	274,972	1,188,574
2019	4,436	841,325	180,277	269,196	1,290,797
2020	4,818	1,101,041	206,852	276,915	1,584,808
2021	5,630	1,603,620	272,823	501,884	2,378,326

¹ The CAP data for 2017 reflect partial-year benefits for the WSRF discount and CRIAC credit, 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.

Table 17B sets for the number of customers assisted and the total discount provided through the CAP II and CAP III discount Fiscal Year 2019 to Fiscal Year 2021. The District also funded the CRIAC Nonprofit Relief Program, which is designed to provide CRIAC credits to nonprofit organizations as determined by the District Department of the Environment. An eligible customer under the Nonprofit Relief Program receives up to a 90% discount for CRIAC.

Table 17B. Customer Assistance Program II and III Discount

Fiscal Year	Customers Assisted	Water/Wastewater PILOT/ROW (\$)	WSRF Discount (\$)	CRIAC Credit (\$)	Total Amount
2019 – CAP II	191	33,344	-	14,147	47,490
2019 – CAP III	48	-	-	9,436	9,436
2020 – CAP II	681	127,319	-	46,517	173,837
2020 – CAP III	133	-	-	25,863	25,863
2021 – CAP II	835	172,555	-	73,082	245,637
2021 – CAP III	191	-	-	36,059	36,059

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 2017.

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

Fiscal Year	Participating Customers	S.P.L.A.S.H Value
2017	331	103,283
2018	212	104,361
2019	276	84,427
2020	133	74,323
2021	96	71,765

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 82.0% of total revenues, and wholesale customer payments for wastewater treatment services, which account for 10.8% of total revenues (excluding the PILOT/ROW Fee for Fiscal Years 2022 through 2026). 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.

Table 19 presents historical revenues, expenses and changes in net position using information contained in the audited financial statements for Fiscal Years 2017 through 2020 and preliminary, unaudited data for 2021. The Authority's complete financial statements for the Fiscal Years ended September 30, 2020, and 2019, are attached hereto as APPENDIX B.

Table 19. Historical Revenues, Expenses and Change in Net Position
(\$ in thousands)

	Fiscal Year Ended September 30				
	2017	2018	2019	2020	2021
Operating revenues					
Residential, commercial and multi-family customers	\$ 401,246	\$ 425,492	\$ 443,481	\$ 459,572	\$ 474,380
Federal government	67,672	73,551	73,393	80,122	86,422
District government and DC Housing Authority	40,483	42,710	45,816	46,781	50,020
Charges for wholesale wastewater treatment	101,619	121,961	114,766	117,166	127,410
Other	32,149	20,788	27,691	33,187	32,325
Total Operating Revenues	<u>643,169</u>	<u>684,502</u>	<u>705,147</u>	<u>736,828</u>	<u>770,557</u>
Operating expenses					
Personnel services	132,124	142,342	141,040	135,005	142,352
Contractual services	72,611	74,627	75,818	74,064	73,227
Chemicals, supplies and small equipment	33,381	31,152	36,579	30,602	35,411
Utilities and rent	24,262	26,163	25,813	24,708	27,331
Depreciation and amortization	97,900	115,453	127,501	135,590	138,074
Water purchases	26,796	28,357	32,430	31,696	33,135
Payment in lieu of taxes and right of way fee	21,057	21,376	21,702	22,034	22,372
Total operating expenses	<u>408,131</u>	<u>439,470</u>	<u>460,883</u>	<u>453,699</u>	<u>471,902</u>
Operating income	235,038	245,032	244,264	283,129	298,655
Nonoperating revenue (expenses)					
Interest income	3,740	5,866	9,307	8,846	2,760
Interest expense and fiscal charges	(68,293)	(93,956)	(104,630)	(91,724)	(155,672)
Total nonoperating revenue (expenses)	<u>(64,553)</u>	<u>(88,090)</u>	<u>(95,323)</u>	<u>(82,878)</u>	<u>(152,912)</u>
Change in net position before Federal grants and contributions	170,485	156,942	148,941	200,251	145,743
Contributions of capital from Federal government	24,066	30,419	16,313	22,727	42,093
Change in net position	194,551	187,361	165,254	222,978	187,836
Net position, beginning of year	<u>1,703,289</u>	<u>1,897,840</u>	<u>2,085,201</u>	<u>2,250,455</u>	<u>\$2,473,433</u>
Net position, end of year	<u>\$1,897,840</u>	<u>\$2,085,201</u>	<u>2,250,455</u>	<u>\$2,473,433</u>	<u>\$2,661,269</u>

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.

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

	Fiscal Year ended September 30				
	2017	2018	2019	2020	2021
Revenues:					
Retail	\$474,462	\$498,394	\$543,130	\$551,188	\$563,277
Wholesale	81,136	81,022	82,116	79,157	82,986
Other Non-Operating	61,419	51,756	69,191	79,752	63,305
(Contributions to/Transfers from Rate Stabilization Fund)	(10,000)	-	-	(28,794)	2,500
Total Revenues (A)	\$607,017	\$631,172	\$694,437	\$681,304	\$712,069
Operating Expenses (B)	292,812	298,761			
Revenues Less Operating Expenses (C=A-B)	\$314,205	\$332,411	\$694,437	\$681,304	\$712,069
Debt Service:					
Senior Debt Service (D)	\$51,945	\$67,296	\$75,282	\$72,202	\$74,349
Subordinate Debt Service (E)	109,263	111,104	117,753	126,854	129,793
Total Outstanding and Projected Debt Service (F=D+E)	\$161,208	\$178,400	\$193,035	\$199,056	\$204,143
Calculation of Net Revenues Available for Senior Debt Service:					
Revenues Less Operating Expenses (C)	\$314,205	\$332,411	\$694,437	\$681,304	\$712,069
Prior Year Federal Billing Reconciliation	(19,201)	(9,019)	(5,753)	1,317	2,233
(Refund to)/Payment from wholesale customers	(10,906)	8,987	(10,940)	14,925	2,313
(Additions to)/Transfers from DC PILOT Fund	-	-	-	-	-
Customer Rebate	-	-	-	-	-
Net Revenues Available for Senior Debt Service (G)	\$284,098	\$332,379	\$677,743	\$697,546	\$716,615
Senior Debt Service Coverage (G/D)	5.47x	4.94x	4.63x	5.24x	5.08x
Calculation of Subordinate Debt Service Coverage:					
Net Revenue Available for Senior Debt Service	\$284,098	\$332,379	\$677,743	\$697,546	\$716,615
Less Senior Debt Service (D)	(51,945)	(67,296)	(75,282)	(72,202)	(74,349)
Net Revenues Available for Subordinate Debt Service (G-D)	\$232,153	\$265,083	\$602,461	\$625,344	\$642,266
Subordinate Debt Service Coverage ((G-D)/E)	2.12x	2.39x	2.32x	2.41x	2.36x
Combined Debt Service Coverage (G/F)	1.76x	1.86x	1.81x	1.90x	1.86x

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 2022 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. 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 2021 and Fiscal Year 2022 Budgets

The Board adopted the Fiscal Year 2021 operating budget (the "Fiscal Year 2021 Budget") on March 5, 2020 and the Fiscal Year 2022 operating budget (the "Fiscal Year 2022 Budget") on April 1, 2021.

The Fiscal Year 2021 Budget for operating expenditures totals \$642.7 million, which is \$28.2 million or 4.6% higher than the Approved Fiscal Year 2020 Budget, primarily due to the increases in: debt service costs associated with the Authority's CIP, personnel services, contractual services and chemicals and supplies. The Fiscal Year 2022 Budget for operating expenditures totals \$658.4 million, which is \$15.7 million or 2.4% higher than the Approved Fiscal Year 2021 Budget, primarily due to increases in debt service costs associated with the Authority's CIP and an increase to the budgeted amount for cash-financed construction.

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. 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 (preliminary, unaudited) cash flows, cash reserves and debt service coverage for Fiscal Year 2021 and (ii) projected cash flows, cash reserves and debt service coverage for Fiscal Years 2022 through 2026. The projected revenues reflect the increases in rates and charges adopted by the Authority for Fiscal Year 2022 and the anticipated increases in rates and charges for Fiscal Years 2023 through 2026.

The projected financial results for Fiscal Years 2022 through 2026 incorporate assumptions as of the date of this Official Statement. The projected debt service requirements include anticipated debt service on the [Series 2022B/C/D Bonds and the Series 2022E Bonds]. Excluding the issuance of the [Series 2022B/C/D Bonds and the Series 2022E Bonds], the Authority anticipates issuing approximately \$955.8 million of new money bonds from Fiscal Year 2022 through and including Fiscal Year 2026. There are no deposits to the debt service reserve fund assumed for the [Series 2022B/C/D Bonds and the Series 2022E 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" in Appendix A.

[Table 21. Analysis of Actual and Projected Financial Results]
[footnotes to be updated]

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

	Actual		Projected			
	2021 ²	2022	2023	2024	2025	2026
Revenues and Payment Obligations						
Revenues						
Retail Revenues ¹	\$563,277	\$599,193	\$625,234	\$677,299	\$704,026	\$741,849
Wholesale Revenues	82,986	84,669	87,209	89,825	92,520	95,295
Other Non-Operating Revenues	60,805	62,023	64,495	68,251	71,549	76,777
Transfer from RSF	2,500	52,100	0	0	0	0
(Contributions to RSF)	0	2	4	6	8	10
Total Revenues	\$709,568	\$797,987	\$776,941	\$835,381	\$868,103	\$913,932
Prior Year Federal Billing Reconciliation	2,233	488	-3,761	-6,742	0	0
Projected Billing Refunds	0	0	0	0	0	0
(Refund to)/Payment from IMA	2,313	(5,400)	0	0	0	0
Transfer to CAP Fund	0	0	0	0	0	0
Curing Pad + ERP	0	0	0	0	0	0
Net Revenues (A)	714,115	793,074	773,180	828,639	868,103	913,932
Operating Expenses (B)	332,830	341,627	352,149	362,998	374,183	385,716
Net Revenues Available for Debt Service (C=A-B)	381,285	451,447	421,031	465,641	493,920	528,216
Total Senior Debt Service (D) ^{3,4,5}	75,085	76,947	82,445	72,113	72,793	81,798
Total Subordinate Debt Service (E) ^{3,4,5,6,7,8}	129,793	148,918	156,658	175,748	197,674	203,065
Total Outstanding & Projected Debt Service (F=D+E)	204,878	225,865	239,103	247,861	270,467	284,863
Debt Service Coverage						
Calculation of Net Revenues Available for Senior Debt Service						
Senior Debt Service Coverage (C/D)	5.08x	5.87x	5.11x	6.46x	6.79x	6.46x
Calculation of Subordinate Debt Service Coverage						
Net Revenue Available for Senior Debt Service (C)	381,285	451,447	421,031	465,641	493,920	528,216
Less Senior Debt Service (D)	(75,085)	(76,947)	(82,445)	(72,113)	(72,793)	(81,798)
Net Revenue Available for Subordinate Debt Service (C-D)	306,199	374,501	338,586	393,529	421,127	446,418
Subordinate Debt Service Coverage [(C-D)/E]	2.36x	2.51x	2.16x	2.24x	2.13x	2.20x
Combined Debt Service Coverage (C/F)	1.86x	2.00x	1.76x	1.88x	1.83x	1.85x
Subordinated Payment Obligations						
Payment In Lieu of Taxes/Right of Way Fee (G)	22,372	22,718	23,070	23,430	23,796	24,170
Defeasance/Cash Financed Capital Construction (H) ⁹	30,355	37,830	45,381	49,051	58,226	68,942
Revenues Less Disbursements (I=A-B-F-G-H)	123,678	165,035	113,477	145,300	141,431	150,241
Reserve Balances						
Beginning Cash Reserve Balance (J)	186,827	196,286	235,600	242,600	251,600	261,600
Cash Reserve Balance Breakdown						
Beginning Undesignated Reserve Balance	99,405	108,864	148,178	155,178	164,178	174,178
Additions to/(Transfers from) Undesignated Reserve						
Annual Balance from Operations	119,132	169,945	117,234	152,036	141,423	150,231
Prior Year Federal Billing Reconciliation	2,233	488	-3,761	-6,742	0	0
Projected Billing Refunds	0	0	0	0	0	0
(Refund to)/Payment from IMA	2,313	(5,400)	0	0	0	0
Transfer to CAP Fund	0	0	0	0	0	0
Curing Pad + ERP	0	0	0	0	0	0
Pay-Go Capital Financing	(114,221)	(125,719)	(106,473)	(136,294)	(131,423)	(145,231)
(Transfers to)/Transfers from 60-Day Reserve	0	0	0	0	0	0
Ending Undesignated Reserve Balance	108,864	148,178	155,178	164,178	174,178	179,178
Beginning 60-Day Operating Reserve Balance	52,422	52,422	52,422	52,422	52,422	52,422
Additions to/(Transfers from) 60-Day Reserve	0	0	0	0	0	0
60-Day Operating Reserve Balance	52,422	52,422	52,422	52,422	52,422	52,422
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

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Ending Balance Cash Reserve	196,286	235,600	242,600	251,600	261,600	266,600
District Stormwater Fee - DC Water Share (K)	1,148	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] ¹⁰	125,500	125,500	125,500	125,500	125,500	125,500
Beginning Rate Stabilization Fund Balance	90,244	87,744	35,644	35,644	35,644	35,644
Transfers from Operations (Additions to Rate Stabilization Fund)	0	0	0	0	0	0
Additions to Operations/(Transfers from) Rate Stabilization Fund	2,500	51,200	0	0	0	0
Rate Stabilization Fund Balance	87,744	35,644	35,644	35,644	35,644	35,644

¹ Includes retail revenue from water and wastewater charges as well as the Clean Rivers 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 Year 2023 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 the anticipated Fiscal Year [Series 2022 Bonds] is calculated based on an assumed annual true interest cost of 3.34%, a term of 30 years and level debt service. Debt service for the anticipated 2019 Series C Bonds is based on an assumed annual true interest cost of 3.09%, a term of 35 years and with no principal payments during the period of Fiscal Year 2019 through Fiscal Year 2023. Debt service for anticipated future bonds starting in Fiscal Year 2020 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 2020, and 6.00% in Fiscal Year 2021 and all subsequent years.

⁵ Total Senior Debt Service (D) and Total Subordinate Debt Service (E) includes debt service payments on anticipated future bonds of the Authority, based on the terms noted in footnote 4 above. The Authority has applied for loans to finance a portion of its CIP pursuant to the Water Infrastructure Finance and Innovation Act of 2014 (WIFIA), a federal credit program administered by EPA for eligible water and wastewater infrastructure projects. The application amount is a total of \$144 million to be disbursed over multiple years. If such loans are approved, it is anticipated that: a) the amount of the bonds issued in future years by DC Water will be reduced by the principal amount of the loans received from the WIFIA program; and b) the annual debt service payments on such loans will be approximately equal to or less than the debt service that would be required if the Authority issued bonds in lieu of accepting the loan proceeds.

⁶ The Total Subordinate Debt Service is net of the Build America Bonds (BABs) subsidies the Authority expects to receive from the United States Treasury equal to approximately 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 2022 BONDS] - Direct Payments - Sequestration."

⁷ 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."

⁸ 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 Series 2016B Bonds are subordinate, multimodal variable rate bonds, initially issued bearing a 3.43% fixed rate through the mandatory tender date, April 1, 2021 (Fiscal Year 2021). The subordinate debt service shown above includes principal and interest payments through Fiscal Year 2021 and assumes that no outcome payment is payable by the Authority. In the event that an outcome payment is necessary, the Authority estimates that its maximum obligation would be \$3.3 million, payable in full in Fiscal Year 2021. Any outcome payment up to and including the maximum obligation would not be material to the annual cash flows of the Authority. In the event that the maximum obligation amount has to be paid in Fiscal Year 2021: a) the projected Senior Debt Service Coverage does not change, b) the projected Subordinate Debt Service Coverage would be 2.12, and c) the Projected Combined Coverage would be 1.75.

⁹ Beginning in Fiscal Year 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.

¹⁰ 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. Actual results are projected to be higher than required under Board policy; see the explanation provided herein.

Source: Amawalk (Totals may not add due to rounding.)

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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 2021, and the projected revenues for Fiscal Years 2022 through 2026.

Table 22. Historical and Projected Revenue on a Cash Basis

Fiscal Years ended/ending September 30¹
(\$ in thousands)¹

	Actual ²	Projected ³				
	2021	2022	2023	2024	2025	2026
Retail Revenue						
Residential, Commercial, Multi-Family	\$323,874	\$361,143	\$387,599	\$412,689	\$438,890	\$467,308
D.C. Municipal Government	12,274	11,445	12,293	13,083	13,924	14,818
Federal Government	54,665	62,100	54,247	57,732	61,441	65,389
D.C. Housing Authority	11,035	11,521	12,376	13,171	14,017	14,918
Groundwater ⁴	0	5	5	5	5	5
Metering Fee	14,862	24,083	24,083	24,083	24,083	24,083
Water System Replacement Fee ⁵	42,212	39,717	39,717	39,717	39,717	39,717
CRIAC	<u>104,356</u>	<u>89,179</u>	<u>94,914</u>	<u>116,819</u>	<u>111,949</u>	<u>115,612</u>
Total Retail Revenue	\$563,277	\$599,193	\$625,234	\$677,299	\$704,026	\$741,849
Wholesale Revenue						
Loudoun County & Potomac Interceptor	\$11,189	\$10,443	\$10,757	\$11,079	\$11,412	\$11,754
WSSC	56,954	59,049	60,821	62,645	64,525	66,460
Fairfax County	<u>14,844</u>	<u>15,176</u>	<u>15,632</u>	<u>16,101</u>	<u>16,584</u>	<u>17,081</u>
Total Wholesale Revenue	\$82,986	\$84,669	\$87,209	\$89,825	\$92,520	\$95,295
Other Revenues						
District Stormwater Fee – D.C. Water Share	\$1,148	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Transfer from Rate Stabilization Fund	2,500	52,100	0	0	0	0
Miscellaneous Revenues	34,225	35,805	36,264	37,171	37,914	40,046
Aqueduct Debt Service Revenue from Falls Church and Arlington	193	193	193	193	193	193
Interest Income	3,627	3,437	3,968	6,457	8,646	11,368
PILOT/D.C. Right of Way Occupancy Fee	<u>21,612</u>	<u>21,588</u>	<u>23,070</u>	<u>23,430</u>	<u>23,796</u>	<u>24,170</u>
Total Other Revenue	\$63,305	\$114,123	\$64,495	\$68,251	\$71,549	\$76,777
Total Operating Cash Receipts	\$631,173	\$682,337	\$680,472	\$740,191	\$787,461	\$836,313
Less: Contributions to Rate Stabilization Fund	0	0	0	0	0	0
Total Operating Cash Receipts with RSF Transfers	\$709,568	\$797,985	\$776,937	\$835,375	\$868,095	\$913,922

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

² Preliminary results, unaudited.

³ Fiscal Year 2019 - 2023 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 2017 through 2021, retail revenues accounted for approximately 81.0% of total revenue (excluding the PILOT/ROW Fee and the effects of withdrawals from the Rate Stabilization Fund), wholesale customer payments represented about 12.5% of total revenues, with the remaining 6.5% coming from a variety of sources, such as interest income, the District fire protection fee, IMA contributions for indirect costs 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 the PILOT/ROW Fees, will be \$600.6 million in Fiscal Year 2022, or 82.7% of the Authority’s total revenues (excluding the PILOT/ROW Fee and transfers from the Rate Stabilization Fund). This amount includes approximately \$89.2 million from the CRIAC and \$39.7 million from the Water System Replacement Fee. Excluding CRIAC and the Water System Replacement Fee, Fiscal Year 2022 projected revenue is expected to be \$55.0 million, or 13.2%, higher than the Fiscal Year 2021 revenues from retail customers. The projected increase in retail revenue assumes the consumption of retail customers will be lower in Fiscal Year 2022 compared to Fiscal Year 2021.

Revenues from retail customers are projected to be \$644.0 million in Fiscal Year 2023. This amount includes approximately \$91.4 million from the CRIAC and \$39.7 million from the Water System Replacement Fee and excludes the PILOT/ROW Fee. Without the effects of the CRIAC and the Water System Replacement Fee, the Fiscal Year 2022 projected revenue represents an increase of \$41.1 million or 8.7% compared to the projected Fiscal Year 2022 revenues.

Retail revenues in Fiscal Years 2024 through 2026 are anticipated to increase in each year reflecting both the effects of anticipated changes in rates (as illustrated in Table 13) 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 \$104.4 million in Fiscal Year 2021. CRIAC revenues are projected to decrease to \$89.2 million in Fiscal Year 2022 due to a rate adjustment to better reflect the cost of service. Rates and revenues from the CRIAC in Fiscal Years 2022 and 2023 are expected to be lower than in Fiscal Year 2021 and rates and revenues from wastewater charges are expected to be higher due to both: a) increases in the cost of service, and b) an allocation of a portion of the costs of the LTCP to wastewater charges in lieu of the CRIAC. The allocation of a portion of LTCP costs to wastewater charges is based on an analysis prepared by the Authority which estimates that sanitary sewage comprises 37% of combined wastewater and stormwater. DC Water expects to allocate a portion of the LTCP costs to wastewater charges in three stages, beginning with an 18% allocation in Fiscal Year 2020. In Fiscal Years 2021 and 2022, the allocated portions are expected to be 28% and 37%, respectively. Allocated LTCP costs in Fiscal Year 2023 are expected to remain at the 37% level. Amawalk reviewed the Authority’s analysis and found it to be reasonable and consistent with industry practice. The expected reduction in Fiscal Year 2022 CRIAC revenue of \$15.2 million represents a decrease of 14.5% from the prior year. The revenues from the CRIAC in Fiscal Year 2023 and subsequent years are expected to increase reflecting the effects of projected rate increases.

Water System Replacement Fee

The revenues from Water System Replacement Fee were \$42.2 million in Fiscal Year 2021. It is assumed for projection purposes that the Water System Replacement Fee will generate \$39.7 million per year from Fiscal Year 2022 and through 2026.

Stormwater Revenues

In Fiscal Year 2021, the Authority collected \$1.15 million in stormwater fees from its retail accounts to cover its share of District stormwater expenditures, and it anticipates that it will collect \$1.0 million in each Fiscal Year from 2022 to 2026. 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 which is assumed to be constant during the projection period. 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 2021, the Authority received \$83.0 million in revenue from its wholesale customers pursuant to the IMA. Revenues from wholesale customers are expected to increase to \$84.7 million in Fiscal Year 2022 and \$85.7 million in Fiscal Year 2023. The revenues from the wholesale customers in Fiscal Years 2024 through 2026 are projected to increase reflecting the effects of projected cost increases for such customers 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 2022 through Fiscal Year 2026.

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, reserve requirements, fund balances and market conditions affecting interest rates and other investment terms. In Fiscal Year 2021, the Authority received \$3.6 million in revenue from interest earnings. The Authority has projected interest earnings of \$3.4 million in Fiscal Year 2022, \$4.4 million in Fiscal Year 2023, \$4.4 million in Fiscal Year 2024, \$8.7 million in Fiscal Year 2025 and \$10.3 million in Fiscal Year 2026, including interest earned from the bond reserves. The assumed annual interest earnings rates for the funds are: 1.0% in Fiscal Years 2022 and 2023, 2.0% in Fiscal Years 2024 and 2025, and 2.5% in Fiscal Year 2026. Projected fund balances and interest rate assumptions are reviewed annually as part of the Authority's budget process. 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 2022.

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 2021 were \$34.2 million. Revenues from these sources are expected to increase to \$36.5 million in Fiscal Year 2022. Miscellaneous revenues are expected to total \$41.7 million per year in Fiscal Year 2023, \$43.6 million in Fiscal Year 2024, \$41.7 million in Fiscal Year 2025, and \$44.3 million in Fiscal Year 2026.

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 2022, and increase to \$24.2 million in Fiscal Year 2026. The Authority and the District have negotiated new MOUs for both the PILOT and the ROW (see "THE AUTHORITY – Authority's Relationship to the District").

System Expenditures

Operating Expenses

Table 23 presents the historical Operating and Maintenance (“O&M”) expenses of the Authority for Fiscal Year 2021, approved (projected) O&M expense for Fiscal Year 2022, and the projected O&M expenses for Fiscal Years 2023 through 2026 on a cash disbursement basis.

The approved expenses for Fiscal Year 2022 reflect the current adopted budget of the Authority which represents a 2.6% increase over the expenses for Fiscal Year 2021, excluding the PILOT/ROW Fee payments to the District. The anticipated expenses for Fiscal Year 2023 reflect an annual increase of 2.9% over the projected expenses for Fiscal Year 2022, excluding the PILOT/ROW Fee payments to the District.

Table 23. Historical and Projected Operation and Maintenance Costs on a Cash Disbursement Basis
Fiscal Years ended/ending September 30¹
(\$ in thousands)¹

	Actual²	Approved	Projected³			
	2021	2022	2023	2024	2025	2026
Personnel Services	\$145,734	\$155,267	\$159,925	\$164,723	\$169,664	\$174,754
Contractual Services	82,459	88,504	91,159	93,894	96,711	99,612
Water Purchases	34,796	35,217	36,274	37,362	38,483	39,637
Chemical & Supplies	38,377	34,402	35,228	36,285	37,373	38,495
Utilities & Rent	30,962	27,329	28,422	29,559	30,741	31,971
Small Equipment	502	1,108	1,141	1,175	1,211	1,247
Total O&M Expenses	332,830	341,627	352,149	362,998	374,183	385,716
PILOT/D.C. ROW Occupancy Fee	\$22,372	\$22,718	\$23,070	\$23,430	\$23,796	\$24,170
Total Expenses	\$355,203	\$364,435	\$375,219	\$386,427	\$397,980	\$409,886

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

² Preliminary results; unaudited.

³ Fiscal Year 2023 – 2026 cost projections are based on the Authority’s Financial Plan.

Source: Amawalk

Table 24 provides a comparison of the budgeted versus actual costs for Fiscal Years 2019, 2020 and 2021 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	2019			2020			2021		
	Approved Budget	Actual Cost	Variance	Approved Budget	Actual Cost	Variance	Approved Budget	Actual Cost ²	Variance
Personnel Service	\$162,620	\$157,979	\$4,641	\$170,680	\$159,244	\$11,436	\$177,863	\$165,032	\$12,831
Contractual Service	81,679	76,206	5,473	81,886	74,503	7,383	88,532	73,576	14,956
Water Purchase	30,520	32,430	(1,910)	34,929	31,696	3,233	36,250	33,135	3,115
Chemical & Supplies	32,091	34,979	(2,888)	33,158	28,659	4,499	36,081	34,244	1,837
Utilities & Rent	26,905	25,778	1,127	26,953	24,705	2,248	27,911	27,329	582
Small Equipment	1,240	731	509	989	806	183	1,030	1,033	(3)
Debt Service	199,025	193,035	5,990	207,340	199,056	8,284	222,268	204,878	17,390
Cash Financed Capital Improvements	26,999	26,999	0	28,556	28,556	0	30,355	30,355	0
PILOT/ROW	21,702	21,702	0	22,034	22,034	0	22,374	22,374	0
Total Budgetary Basis Expenditures	\$582,781	\$569,839	\$12,942	\$606,525	\$569,259	\$37,266	\$642,664	\$591,956	\$50,708

¹ All figures are presented on an accrual basis.

² These figures include estimated incurred but unpaid invoices and are subject to revision during year-end closeout and final audit.

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.

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% of the total personnel services budget in Fiscal Year 2021 and 22% of the total personnel services budget in Fiscal Year 2022.

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 2021, including an allowance for fringe benefits, totaled \$8.2 million, or about 4.6% of total personnel services costs.

Total Personnel Expenses. On a cash basis, the Authority's personnel costs increased at an annual average of 4.6% per year from Fiscal Year 2017 through Fiscal Year 2021. In Fiscal Years 2022 and 2023, personnel expenses are expected to increase by 6.5% and 0.3%, respectively, from the prior year. Beginning in Fiscal Year 2024, 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 cash basis costs for contractual services in FY 2021 were \$82.5 million. The budgeted amounts for contractual services in Fiscal Year 2022 and Fiscal Year 2023 are similar at \$88.5 million and \$88.5 million, respectively. Contractual services expenses are assumed to increase at the average annual rate of 3.1% for Fiscal Year 2024 and 3.0% in Fiscal Years 2025 and 2026.

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.

The actual operating costs for water purchases in Fiscal Year 2021 were \$34.8 million on a cash basis. The budgeted amount for water purchases in Fiscal Year 2022 and the projected amount for Fiscal Year 2023 is \$35.2 million and \$40.3 million, respectively. An average annual increase in water supply costs of 3.0% is assumed in Fiscal Years 2024 through 2026.

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 2021 on a cash basis were \$38.4 million. The budgeted expenses for chemicals and supplies in Fiscal Year 2022 and the projected amount for Fiscal Year 2023 are \$34.2 million and \$37.0 million, respectively. An average annual increase in costs for chemicals and supplies of 3.5%, 4.0% and 3.0% is assumed in Fiscal Years 2024, 2025 and 2026, respectively.

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 2021, approximately 63% of the expenses associated with utilities and rent were attributable to the cost of power. The combined heat and power facility provides over 23% 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 ConEdision 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. The contract was modified and extended through September 30, 2020.

The Authority has also entered into a Solar Power Purchase Agreement ("Solar PPA") with Marbury Point Solar LLC ("Marbury") on June 14, 2018, under which Marbury will engineer, design, permit, construct, install, finance, own, operate and maintain a solar photovoltaic power generation system at Blue Plains in order to provide a portion of the electricity necessary for the operation of Blue Plains. The Solar PPA has an initial term of 20 years, renewable at the discretion of the Authority. The Authority has agreed to purchase all of the energy output from the project contemplated under the Solar PPA. The Authority may terminate the Solar PPA at any time, but is obligated to pay a termination value which is a sliding scale from the first year valued at \$24,972,127 through the twentieth year valued at \$1,048,575. Upon expiration of the Solar PPA, the Authority may purchase the subject solar system from Marbury at fair market value. The Blue Plains Phase I solar project began generating power in June of 2021. The Authority, as dictated by the Solar PPA, pays \$0.025/kwhr for the power and as a result has avoided paying grid power

costs, which were approximately \$0.10/kwhr in December 2021. Based on current generation, the estimated savings is \$440,000/year.

Reserve Funds

The Authority maintains various reserve funds as previously described herein. See “SECURITY FOR THE SERIES 2022B/C/D 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 December 31, 2021.

Financial Policies, Debt Policy and Guidelines

The policies are designed to promote sound financial management, achieve high quality investment grade bond ratings to help ensure the lowest cost of debt necessary to finance the Authority's long-term capital program, guide day-to-day financial and management decisions by the Authority, and reduce financial risk associated with events that could interrupt customer payments or financial markets, or require a large unanticipated outlay of cash (major repairs).

- i. The Authority will maintain strong levels of Operating Cash Reserves that exceed the Master Indenture requirements. In the Financial Plan that is proposed by the CEO and General Manager and approved by the Board, 250 days of cash will be maintained in each fiscal year based on projected Operating Expenses. Days of Cash on Hand will be calculated on an average daily balance basis for the projections in the Financial Plan.
- ii. It is the policy of the Board that the Financial Plan developed by the CEO and General Manager and adopted by the Board will contain a minimum combined debt service coverage of 1.60x for the budget and all years of the Financial Plan. Debt service coverage will be calculated in accordance with the Master Indenture.
- iii. The Authority will, 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. The Authority will attempt to match the period of debt repayment, in total, with the lives of the assets financed by any such debt.
- iv. The Authority will use operating cash in excess of the Board's Operating Cash Reserve requirement and any other significant one-time cash infusions for capital financing, repayment of higher cost debt (debt defeasance), or non-recurring expenses that reduce ongoing costs. The budget and the financial plan will be structurally balanced; the Authority will use onetime revenues for one-time expenses.

Rate-Setting Policies

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

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

- vi. 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.

Cash Management and Investment Policies

In January 2022, 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.

Green Bond Framework

On October 7, 2021 the Board issued a Green Bond Framework to formalize the process and commitments that govern the Authority’s issuance of Green Bonds. The Green Bond Framework governs the use of Green Bond proceeds, project selection and evaluation processes, management of Green Bond proceeds and disclosure. At the time of issuance of a Green Bond, the Authority’s policy is to seek an independent Second Party Opinion on the sustainability of the Green Bond to be issued.

ENGINEERING FEASIBILITY REPORT [UPDATE]

The Authority retained Johnson, Mirmiran & Thompson, Inc. (“JMT”) to prepare the Independent Engineering Inspection of the DC Water Wastewater and Water Systems dated March 28, 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 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 [_____, 2022], which is attached hereto as APPENDIX A. 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.

[update] The conclusions set forth in the Financial Feasibility Opinion Letter reflect Amawalk's analysis of the Authority's anticipated financial results for Fiscal Years 2022 to 2028. 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. This policy requirement exceeds the minimum Operating Reserve fund requirements set forth in the Indenture. 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. In January 2019, Authority staff recommended to further enhance the Authority's cash position and maintain a target of 250 days of cash on hand. There can be no assurance that the Board will maintain or modify its current financial policy.

- The water and wastewater rates, fees and charges of the Authority, including projected increases for FY 2020 through FY 2023, 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.

INDEPENDENT SUSTAINABILITY CONSULTANT OPINION LETTER

The Authority retained [Vigeo] to prepare an Independent Sustainability Consultant Opinion on the Series 2022B Project based on issuer, project and reporting standards and commitments described in an Opinion Letter dated [_____, 2022], which is attached hereto as APPENDIX G. Vigeo is a research agency that provides non-financial ratings and research on issuers – of equity and debt – environmental, social and governance performance to investors (through the business brand of Vigeo Rating) and sustainability consulting services to organizations (through the business brand of Vigeo Enterprise). Vigeo provides an opinion based solely on the environmental, social and governance criteria and assessment. Vigeo is not and does not purport to be a financial advisor or financial analyst or to express any opinion on the quality of the security or sources of payment for the Series 2022B Bonds. Accordingly, no financial evaluations, positive or negative, should be attributed to Vigeo. Vigeo does not guarantee that the Authority will honor the current and future commitments to standards and reporting identified in its Opinion Letter.

The Opinion of the Independent Sustainability Consultant presents findings and conclusions based upon the analysis of the Authority's environmental, social and governance policies, guidelines and results according to criteria aligned with public international standards, in compliance with the ISO 26000 guidelines, and organized in 6 domains: Environment, Human Resources, Human Rights, Community Involvement, Business Behavior and Corporate Governance. Vigeo's review uses information provided by the Authority or others and from internal interviews with department managers and representatives.

The Opinion of the Independent Sustainability Consultant should be read in its entirety for a complete understanding of the assumptions, considerations, estimates and calculations upon which these conclusions are based.

TAX MATTERS

Series 2022B/C Bonds

In the opinion of Squire Patton Boggs (US) LLP and Bellamy Penn LLC, Co-Bond Counsel, under existing law: (i) interest on the Series 2022B/C 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; and (ii) the Series 2022B/C 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 2022B/C 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 2022B/C 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 2022B/C 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 2022B/C Bonds being included in gross income for federal income tax purposes retroactively to the date of issuance of the Series 2022B/C Bonds. The Authority has covenanted to take the actions required of it for the interest on the Series 2022B/C 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 2022B/C 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 2022B/C Bonds or the market value of the Series 2022B/C Bonds.

Interest on the Series 2022B/C 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 2022B/C Bonds. Co-Bond Counsel will express no opinion regarding those consequences.

Payments of interest on tax-exempt obligations, including the Series 2022B/C Bonds, are generally subject to IRS Form 1099-INT information reporting requirements. If a Series 2022B/C 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 2022B/C Bonds ends with the issuance of the Series 2022B/C Bonds, and, unless separately engaged, Co-Bond Counsel is not obligated to defend the Authority or the owners of the Series 2022B/C 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 2022B/C Bonds, under current IRS procedures, the IRS will treat the Authority as the taxpayer and the beneficial owners of the Series 2022B/C 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 2022B/C 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 2022B/C Bonds.

Prospective purchasers of the Series 2022B/C 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 2022B/C Bonds at other than their original issuance, should consult their own tax advisors 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 2022B/C Bonds. There can be no assurance that legislation enacted or proposed, or actions by a court, after the date of issuance of the Series 2022B/C Bonds will not have an adverse effect on the tax status of interest on the Series 2022B/C Bonds or the market value or marketability of the Series 2022B/C 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 2022B/C Bonds from gross income for federal or state income tax purposes for all or certain taxpayers.

For example, federal tax legislation that was enacted on December 22, 2017 reduced corporate tax rates, modified individual tax rates, eliminated many deductions, repealed the corporate alternative minimum tax, and eliminated the tax-exempt advance refunding of tax-exempt bonds and tax-advantaged bonds, among other things. Additionally, investors in the Series 2022B/C Bonds should be aware that future legislative actions might increase, reduce or otherwise change (including retroactively) the financial benefits and the treatment of all or a portion of the interest on the Series 2022B/C Bonds for federal income tax purposes for all or certain taxpayers. In all such events,

the market value of the Series 2022B/C Bonds may be affected and the ability of holders to sell their Bonds in the secondary market may be reduced.

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

Original Issue Discount and Original Issue Premium

Certain of the Series 2022B/C 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 Series 2022B/C 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. 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 2022B/C 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 advisors 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.

Series 2022D Bonds

In the opinion of Squire Patton Boggs (US) LLP and Bellamy Penn LLC, Co-Bond Counsel, under existing law, the Series 2022D 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 2022D Bonds. **INTEREST ON THE SERIES 2022D BONDS IS NOT EXCLUDED FROM GROSS INCOME FOR FEDERAL INCOME TAX PURPOSES. THE LEGAL DEFEASANCE OF THE SERIES 2022D BONDS MAY RESULT IN A DEEMED SALE OR EXCHANGE OF THE SERIES 2022D BONDS UNDER CERTAIN CIRCUMSTANCES; OWNERS OF THE SERIES 2022D BONDS SHOULD CONSULT THEIR TAX ADVISORS AS TO THE FEDERAL INCOME TAX CONSEQUENCES OF SUCH AN EVENT. PROSPECTIVE PURCHASERS OF THE SERIES 2022D BONDS SHOULD CONSULT THEIR TAX ADVISORS AS TO THE FEDERAL, STATE AND LOCAL, AND FOREIGN TAX CONSEQUENCES OF THEIR ACQUISITION, OWNERSHIP AND DISPOSITION OF THE SERIES 2022D BONDS.**

The following discussion is generally limited to “U.S. owners,” meaning beneficial owners of Series 2022D Bonds that for United States federal income tax purposes are individual citizens or residents of the United States, corporations or other entities taxable as corporations created or organized in or under the laws of the United States or any state thereof (including the District of Columbia), and certain estates or trusts with specific connections to the United States. Partnerships holding the Series 2022D Bonds, and partners in such partnerships, should consult their tax advisors regarding the tax consequences of an investment in the Series 2022D Bonds (including their status as U.S. owners).

Prospective purchasers of the Series 2022D 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

2022D Bonds at other than their original issuance, should consult their own tax advisors regarding other tax considerations such as the consequences of market discount, as to all of which Co-Bond Counsel expresses no opinion.

Payment of Interest

In general, interest paid or accrued on the Series 2022D Bonds, including qualified stated interest on Discount Series 2022D Bonds (as defined below), if any, will be treated as ordinary income to U.S. owners. A U.S. owner using the accrual method of accounting for U.S. federal income tax purposes must include interest paid or accrued on the Series 2022D Bonds in ordinary income as the interest accrues, while a U.S. owner using the cash receipts and disbursements method of accounting for U.S. federal income tax purposes must include interest in ordinary income when payments are received or constructively received by the owner, except as described below under the section entitled “*Original Issue Discount and Original Issue Premium.*”

Original Issue Discount and Original Issue Premium

Certain of the Series 2022D Bonds (“Discount Series 2022D 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 Series 2022D Bond, provided that excess equals or exceeds a statutory *de minimis* amount (one-quarter of one percent of the Discount Series 2022D Bond’s stated redemption price at maturity multiplied by the number of complete years to its maturity (or, if required by applicable Treasury Regulations, to an earlier call date)). The issue price of a Discount Series 2022D 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 Series 2022D Bonds of the same maturity is sold pursuant to that offering. For federal income tax purposes, OID accrues to the owner of a Discount Series 2022D 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 time a U.S. owner owns a Discount Series 2022D Bond (i) is interest includable in the U.S. owner’s gross income for federal income tax purposes, and (ii) is added to the U.S. owner’s tax basis for purposes of determining gain or loss on the maturity, redemption, prior sale, or other disposition of the Discount Series 2022D Bond. The effect of OID is to accelerate the recognition of taxable income for a U.S. owner using the cash method of accounting during the term of the Discount Series 2022D Bond.

Certain of the Series 2022D Bonds (“Premium Series 2022D Bonds”) may be offered and sold to the public at a price in excess of their stated redemption price at maturity (the principal amount). If a U.S. owner purchases a Premium Series 2022D Bond, that owner will be considered to have purchased such Premium Series 2022D Bond with “amortizable bond premium” equal in amount to such excess. The U.S. owner may elect (which election shall apply to all securities purchased at a premium by such U.S. owner), in accordance with the applicable provisions of Section 171 of the Code, to amortize that premium as an offset to the interest payments on the Premium Series 2022D Bond using a constant yield to maturity method over the remaining term of the Premium Series 2022D Bond (or, if required by applicable Treasury Regulations, to an earlier call date). Pursuant to Section 67(b)(11) of the Code, the amortization of that premium is not considered a miscellaneous itemized deduction. Any amortization of bond premium will reduce the basis of the Premium Series 2022D Bond pursuant to Section 1016(a)(5) of the Code.

Owners of Series 2022D Discount and Premium Bonds should consult their own tax advisors 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 Series 2019 D 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.

Sale, Exchange, Retirement or Other Taxable Disposition of Series 2022D Bonds

Upon the sale, exchange, retirement or other taxable disposition of a Series 2022D Bond, a U.S. owner will recognize gain or loss equal to the difference between the amount realized from the sale, exchange, retirement or other disposition and the owner’s adjusted basis in the Series 2022D Bond or applicable portion of the adjusted basis. The owner’s adjusted basis generally will equal the cost of the Series 2022D Bond to the owner, increased by any OID includible in the owner’s ordinary income for the Series 2022D Bond and reduced by any principal payments on the Series 2022D Bond previously received by the owner (including any other payments on the Series 2022D Bond that are not qualified stated interest payments) and by any amortizable bond premium allowed as a deduction as described above under the section entitled “*Original Issue Discount and Original Issue Premium.*” Any gain or loss recognized upon a sale, exchange, retirement or other disposition of a Series 2022D Bond (excluding amounts attributable to accrued interest or OID) will generally be capital gain or loss and will be long-term capital gain or loss if the U.S. owner’s holding period in the Series 2022D Bond exceeds one year. Long-term capital gains of individuals are currently eligible for reduced rates of taxation. The deductibility of capital losses is subject to limitations.

Information Reporting and Backup Withholding

General information reporting requirements will apply to payments of principal and interest made on Series 2022D Bonds and the proceeds of the sale of Series 2022D Bonds to non-corporate holders of the Series 2022D Bonds, and “backup withholding,” currently at a rate of 24%, will apply to such payments if the owner fails to provide

an accurate taxpayer identification number in the manner required or fails to report all interest required to be shown on its federal income tax returns. A beneficial owner of Series 2022D Bonds that is a U.S. owner generally can obtain complete exemption from backup withholding by providing a properly completed IRS Form W-9 (Request for Taxpayer Identification Number and Certification).

Medicare Tax Affecting U.S. Owners

A U.S. owner that is an individual or estate, or a trust not included in a special class of trusts that is exempt from such tax, is subject to a 3.8% Medicare tax on the lesser of (1) the U.S. owner's "net investment income" for the taxable year and (2) the excess of the U.S. owner's modified adjusted gross income for the taxable year over a certain threshold (which in the case of individuals is between \$125,000 and \$250,000, depending on the individual's circumstances). A U.S. owner's net investment income generally includes interest income on, and net gains from the disposition of, Series 2022D Bonds, unless such interest income or net gains are derived in the ordinary course of a trade or business (other than a trade or business that consists of certain passive or trading activities). A U.S. owner that is an individual, estate, or trust, should consult its tax advisor regarding the applicability of the Medicare tax.

Non-U.S. Owners

Under the Code, interest and OID on any Series 2022D Bond whose beneficial owner is not a U.S. owner is generally not subject to United States income tax or withholding tax (including backup withholding) if the non-U.S. owner provides the payor of interest on the Series 2022D Bonds with an appropriate statement as to its status as a non-U.S. owner. This statement can be made on IRS Form W-8BEN or a successor form. If, however, the non-U.S. owner conducts a trade or business in the United States and the interest or OID on the Series 2022D Bonds held by the non-U.S. owner is effectively connected with such trade or business, that interest or OID will be subject to United States income tax but will generally not be subject to United States withholding tax (including backup withholding). The foregoing is a brief summary of certain federal income tax consequences to a non-U.S. owner. *Non-U.S. owners should consult their tax advisors regarding the tax consequences of an investment in the Series 2022D Bonds.*

Foreign Account Tax Compliance Act

The Foreign Account Tax Compliance Act ("FATCA") generally imposes a 30% withholding tax on interest payments to (i) certain foreign financial institutions (including certain investment funds) that fail to certify their FATCA status and (ii) non-financial foreign entities if certain disclosure requirements related to direct and indirect United States shareholders are not satisfied. Proposed Treasury Regulations, which may be relied upon until final Treasury Regulations are promulgated, suspend the requirement to apply the 30% withholding tax to gross proceeds from the sale or other disposition of Series 2022D Bonds. This requirement otherwise would have applied to a sale or other disposition of Series 2022D Bonds made on or after January 1, 2019.

In the case of payments made to a "foreign financial institution" (generally including an investment fund), as a beneficial owner or as an intermediary, the FATCA withholding tax generally will be imposed, subject to certain exceptions, unless such institution (i) enters into (or is otherwise subject to) and complies with an agreement with the U.S. government (a "FATCA Agreement") or (ii) is required by and complies with applicable foreign law enacted in connection with an intergovernmental agreement between the United States and a foreign jurisdiction (an "IGA"), in either case to, among other things, collect and provide to the U.S. or other relevant tax authorities certain information regarding U.S. account holders of such institution. In the case of payments made to a foreign entity that is not a financial institution (as a beneficial owner), the FATCA withholding tax generally will be imposed, subject to certain exceptions, unless such entity either provides the withholding agent with a certification that it does not have any "substantial" U.S. owner (generally, any specified U.S. person that directly or indirectly owns more than a specified percentage of such entity) or identifies its "substantial" U.S. owners.

If Series 2022D Bonds are held through a foreign financial institution that enters into (or is otherwise subject to) a FATCA Agreement, such foreign financial institution (or, in certain cases, a person paying amounts to such foreign financial institution) generally will be required, subject to certain exceptions, to withhold the 30% FATCA tax on payments of dividends or the items described above made to (i) a person (including an individual) that fails to comply with certain information requests or (ii) a foreign financial institution that has not entered into (and is not otherwise subject to) a FATCA Agreement and that is not required to comply with FATCA pursuant to applicable foreign law enacted in connection with an IGA. Coordinating rules may limit duplicative withholding in cases where the withholding described above in "Non-U.S. Owners" or "Information Reporting and Backup Withholding" also applies.

If any amount of, or in respect of, U.S. withholding tax were to be deducted or withheld from payments on Series 2022D Bonds as a result of a failure by an investor (or by an institution through which an investor holds the Series 2022D Bonds) to comply with FATCA, none of the Authority, any paying agent or any other person would, pursuant to the terms of the Series 2022D Bonds, be required to pay additional amounts with respect to any Series 2022D Bond as a result of the deduction or withholding of such tax. *Non-U.S. owners should consult their tax advisors regarding the application of FATCA to the ownership and disposition of Series 2022D Bonds.*

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 2022B/C/D Bonds or questioning or affecting the validity of the Series 2022B/C/D 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 2022B/C/D Bonds are subject to the approving opinions of Squire Patton Boggs (US) LLP and Bellamy Penn LLC, Co-Bond Counsel, which will be furnished upon delivery of the Series 2022B/C/D Bonds, substantially in the form set forth as APPENDIX F. Squire Patton Boggs (US) LLP and Bellamy Penn 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 Chief Legal Officer and Executive Vice President, Legal Affairs, 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 ended [September 30, 2020 and 2021] 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.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

Prior to the delivery of the Series 2022D Bonds, [_____, Certified Public Accountants], an independent accounting firm, as Verification Agent, will deliver a report on the mathematical accuracy of certain computations contained in schedules relating to the refunding of the Refunded Bonds provided to them by the Representative (as defined below). These computations will relate to the adequacy of the money and maturing principal amounts of the securities on deposit in the Series 2022D Escrow Account for the payment, when due, of principal of and interest on the Refunded Bonds. The Verification Agent will express no opinion on the assumptions provided to it, nor as to the exclusion from gross income for federal income tax purposes of the interest on the Series 2022D Bonds.

THE TRUSTEE

The Authority has appointed Computershare Trust Company, 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 2022B/C/D 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 2022B/C/D Bonds by the Authority. The Trustee has not evaluated the risks, benefits, or propriety of any investment in the Series 2022B/C/D 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 2022B/C/D Bonds, the technical or financial feasibility of the Project, or the investment quality of the Series 2022B/C/D 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"), Moody's Investors Service ("Moody's) and Fitch Ratings ("Fitch") have assigned long-term municipal bond ratings of "___," "___" and "___" respectively, to the Series 2022B/C/D Bonds. A securities rating is not a recommendation to buy, sell or hold the Series 2022B/C/D 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; from Moody's at 7 World Trade Center, New York, New York 10007; and from Fitch Ratings at 300 West 57th Street New York, New York 10019. 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 2022B/C/D 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 2022B/C/D Bonds, which will constitute a written undertaking for the benefit of the Owners of the Series 2022B/C/D 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 Sustainable Capital Advisors have served as co-financial advisors to the Authority with respect to the issuance of the Series 2022B/C/D Bonds.

UNDERWRITING

The Series 2022C-2 Bonds are being exchanged for certain Target Bonds (as described under the caption "FINANCING PLAN"), through the Dealer Manager under the terms Exchange/Tender Offer. For its services as Dealer Manager, the Dealer Manager will be compensated in an amount equal to a percentage of the aggregate principal amount of Exchanged Bonds accepted by the Authority and a percentage of the aggregate principal amount of Tendered Bonds accepted by the Authority.

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 2022B/C/D Bonds, other than the Subseries 2022C-2 Bonds, at an aggregate purchase price equal to \$[] (which amount constitutes the aggregate principal amount of the Series 2022B/C/D Bonds of \$[], plus original issue premium of \$[], less the Underwriters' discount of \$[]).

A Bond Purchase Agreement by and among the Authority and the Representative, on behalf of itself and as representative of the Underwriters dated [], 2022 (the "Series 2022B/C/D Bond Purchase Agreement"), provides that the Underwriters will purchase all of the Series 2022B/C/D Bonds, other than the Subseries 2022C-2 Bonds, if any are purchased, and the obligation to make such purchases is subject to certain terms and conditions set forth in the Series 2022B/C/D Bond Purchase Agreement, the approval of certain legal matters by counsel and certain other conditions.

The Series 2022B/C/D Bonds, other than the Subseries 2022C-2 Bonds, may be offered and sold to certain dealers (including dealers depositing the Series 2022B/C/D 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.

In addition, certain of the Underwriters have entered into distribution agreements with other broker-dealers (that have not been designated by the Authority as Underwriters) for the distribution of the Series 2022B/C/D Bonds at the original issue prices. Such agreements generally provide that the relevant Underwriter will share a portion of its underwriting compensation or selling concession with such broker-dealers.

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.

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 2022B/C/D Bonds is fully set forth in the Indenture. Neither any advertisement of the Series 2022B/C/D Bonds nor this Official Statement is to be construed as constituting an agreement with the purchasers of the Series 2022B/C/D Bonds.

The information contained herein should not be construed as representing all conditions affecting the Authority or the Series 2022B/C/D 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 G 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 and Executive Vice
President, Finance and Procurement

APPENDIX A
FINANCIAL FEASIBILITY OPINION LETTER OF
AMAWALK CONSULTING GROUP LLC
DATED [_____, 2022]

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APPENDIX B

**AUDITED FINANCIAL STATEMENTS OF THE AUTHORITY
FOR THE YEARS ENDED [SEPTEMBER 30, 2020, AND 2021]**

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APPENDIX C
GLOSSARY AND SUMMARY OF THE INDENTURE

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GLOSSARY

In addition to the terms defined elsewhere in this Official Statement, the following are definitions of certain terms used in this Official Statement, and the Indenture. Terms used but not defined herein shall have the meanings set forth in the Master Indenture, as previously amended and supplemented and as further amended and supplemented by the Thirtieth Supplemental Indenture and Thirty-First Supplemental Indenture.

“**Account**” shall mean any of the various Accounts, sometimes created within a fund, under the Indenture.

“**Annual Budget**” shall mean the budget by that name referred to in the Indenture.

“**Annual Debt Service**” shall mean the amount of payments required to be made for principal of and interest on any specified Indebtedness, including mandatory sinking fund redemptions and payments pursuant to agreements with providers of credit enhancement or liquidity support with respect to such Indebtedness, to reimburse such providers for debt service payments made, with respect to such Indebtedness, scheduled to come due within a specified Fiscal Year, but excluding any capitalized interest funded from proceeds of Bonds. For purposes of calculating Annual Debt Service, the following assumptions are to be used to calculate the principal and interest due in such specified Fiscal Year:

(a) In determining the principal amount due in the Fiscal Year, payment shall be assumed to be made in accordance with any amortization schedule established for such Indebtedness (unless a different subsection of this definition applies for purposes of determining principal maturities or amortization), including any scheduled redemption of such specified Indebtedness on the basis of accreted value and, for such purpose, the redemption payment shall be deemed a principal payment;

(b) If any of the specified Indebtedness constitutes Tender Indebtedness, then Annual Debt Service on the options or obligations of the holders of such Indebtedness to tender the same for purchase or payment prior to their stated maturity or maturities shall be treated as a principal maturity occurring on the first date on which owners of such Indebtedness may or are required to tender such Indebtedness, except that any such option or obligation to tender Indebtedness shall be ignored and not treated as a principal maturity if (1) such Indebtedness is rated at least in the “A” rating category (without regard to any rating refinement or gradation by numerical modifier or otherwise) by a Rating Agency, or such Indebtedness is rated in the two highest short-term note or commercial paper rating categories by a Rating Agency, and (2) any obligation the Authority may have, other than its obligation on such Indebtedness, to reimburse any provider of a credit or liquidity facility or a bond insurance policy, or similar arrangement, shall either be subordinate to the obligation of the Authority on such Indebtedness, or shall have been incurred under and shall have met the tests and conditions for the issuance of such specified indebtedness set forth in the Indenture;

(c) If any of the specified Indebtedness constitutes Variable Rate Indebtedness, the interest rate on such Indebtedness shall be assumed to be 100% of the greater of (1) the daily average interest rate on such Indebtedness during the 12 months ending with the month preceding the date of calculation, or such shorter period that such Indebtedness shall have been Outstanding or (2) the rate of interest on such indebtedness on the date of calculation; provided that, with respect to any Variable Rate Indebtedness which is being issued on the date of computation, the initial rate of such indebtedness upon such issuance shall be used;

(d) If any of the specified Indebtedness constitutes Balloon Indebtedness, then, for purposes of determining the annual amount payable on account of principal of and interest on such Indebtedness, such Indebtedness that is or would be Balloon Indebtedness shall be amortized on a level debt service basis over the lesser of a term of 30 years or the actual term of the Indebtedness; and the interest rate used for such computation shall be the rate quoted in the 30-year revenue bond index, or revenue bond index related to the actual term of the Indebtedness, as applicable, published by The Bond Buyer no more than two weeks prior to the date of calculation, or if that index is no longer published, another similar index selected by the Authority, or if the Authority fails to select a replacement index, an interest rate equal to 80% of the yield for outstanding United States Treasury bonds having an equivalent maturity as the Indebtedness on the date of issuance, or if there are no such Treasury bonds having equivalent maturities, 80% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States of America ranked by assets;

(e) If any of the specified Indebtedness constitutes Short-Term Obligations, then for purposes of determining the Annual Debt Service on such Indebtedness, the Authority shall include the amount of any interest payments due on such Indebtedness if such interest is payable from Net Revenues during such Fiscal Year, and ignore any principal payments due on such Indebtedness if (1) such Indebtedness is rated at least in the “A” rating category (without regard to any rating refinement or gradation by numerical modifier or otherwise) by a Rating Agency, or such Indebtedness is rated in the two highest short-term note or commercial paper rating categories by a Rating Agency, (2) there is in place a letter of credit, liquidity facility, a bond insurance policy, or similar arrangement (a “Credit Facility”), and the Authority’s obligation to reimburse the provider of such Credit Facility is subordinate to the Authority’s obligation to pay debt service on Bonds, and (3) there are no unreimbursed draws under any Credit Facility securing any Short-Term Obligations. If there are any unreimbursed draws under a Credit Facility related to such Indebtedness, the principal payment obligation due on such Indebtedness shall be determined to be the principal due under such Credit Facility and shall be calculated in accordance with the amortization schedule set forth with respect to such Credit Facility.

(f) If any of the specified Indebtedness constitutes Bond Anticipation Notes, then for purposes of determining the annual amount payable on account of principal of and interest on such Indebtedness, such Indebtedness shall be amortized on a level debt service basis over a term of 30 years. Interest on such Indebtedness shall equal the actual fixed rate of interest payable during the Fiscal Year. If such Indebtedness is Variable Rate Indebtedness, interest payable during such Fiscal Year shall be calculated in accordance with subsection (c) above.

(g) For any Indebtedness for which a binding commitment, letter of credit or other credit arrangement providing for the extension of such Indebtedness beyond its original maturity date exists, the computation of the annual amount payable on account of principal and interest on such Indebtedness shall, at the option of the Authority, be made on the assumption that such Indebtedness will be amortized in accordance with such credit arrangement; and

(h) Except for Hedge Agreements, Interest Rate Swaps are to be disregarded in calculating the Series Debt Service Reserve Requirement. Upon incurrence of a Hedge Agreement, all calculations, including for the annual amount on account of principal and interest on Indebtedness subject to the Hedge Agreement, shall be made using the Hedge Fixed Rate for the applicable period and such Indebtedness shall not be considered as Variable Rate Indebtedness for such period.

“Authority” shall mean the District of Columbia Water and Sewer Authority, an independent authority of the District.

“Authorized Representative of the Authority” shall mean such person or persons as may be designated to act on behalf of the Authority by a certificate executed by the Chair of the Board of Directors and on file with the Trustee.

“Balloon Indebtedness” shall mean indebtedness having a term of longer than 60 months and 25% or more of the principal of which matures on the same date and which portion of the principal of such indebtedness is not required to be amortized by payment or redemption prior to such date. If any indebtedness consists partially of Variable Rate Indebtedness and partially of indebtedness bearing interest at a fixed rate, the portion constituting Variable Rate Indebtedness and the portion bearing interest at a fixed rate shall be treated as separate issues for purposes of determining whether any such indebtedness constitutes Balloon indebtedness.

“Board of Directors” shall mean the board of directors that was established to govern the Authority pursuant to Section 204 of the WASA Act, codified, as amended, at D.C. Code Section 34-2202.04.

“Bond Anticipation Notes” shall mean any notes issued in anticipation of the issuance of Bonds.

“Bond Counsel” shall mean an attorney or firm of attorneys nationally recognized on the subject of municipal bonds.

“Bond Fund” shall mean the Bond Fund established in the Indenture.

“**Bondholders**” or “**holders**” of Bonds shall mean the registered owners of Bonds.

“**Bonds**” shall mean any bonds, notes or other obligations issued from time to time pursuant to Article III, including Bond Anticipation Notes, but not including Other System Indebtedness and Subordinate Debt.

“**Business Day**” shall mean a day on which banking business is transacted, but not including a Saturday, Sunday or legal holiday, or any day on which banking institutions are authorized by law to close in the city in which the Trustee has its principal corporate trust office or in the District of Columbia.

“**Cash Reserve Requirement**” shall mean those certain balances required to be maintained by the Authority pursuant to the annual credit policies established by the Authority.

“**Code**” shall mean the Internal Revenue Code of 1986, as amended, including applicable regulations, rulings and revenue procedures promulgated or applicable thereunder.

“**Connection Fees**” shall mean all nonrecurring fees that the Authority collects from developers, builders or others (1) to compensate the Authority for providing System capacity, and (2) to connect facilities related to installation of and expansion to the System.

“**Contracted Services**” shall mean (a) services rendered or facilities provided to the Authority in respect to the System or (b) the performance of functions for or on behalf of the Authority that are similar to those performed by the System, from a specific project or system, pursuant to a contract, lease, service agreement or another similar arrangement. No designation or characterization of payments pursuant to the terms of a particular Service Contract will affect the Authority’s right to make designations as to the Debt Service Component, Operating Component, and Remaining Component of the Cost of Contracted Services thereunder.

“**Construction Fund**” shall mean the Construction Fund established in the Indenture.

“**Consulting Engineer**” shall mean (a) an Independent Consulting Engineer or (b) the designated person(s) within the Authority or of any successor department who is (1) an engineer experienced in the field of water or wastewater or stormwater (as appropriate), and (2) licensed and registered as a professional engineer in the District.

“**Cost**” shall mean Cost as set forth in the Indenture.

“**Cost of Contracted Services**” shall mean the payments to be made by the Authority for Contracted Services under service contracts as set forth in the Indenture, which may consist of any of the following three components: a Debt Service Component, an Operating Component, and a Remaining Component, as designated by the CEO and General Manager or his designee for each Service Contract.

“**Debt Service Component**” shall mean the portion of the Cost of Contracted Services that an Authorized Representative of the Authority determines, in a certificate delivered to the Trustee, to be for the purpose of paying a fixed charge or the principal of or interest on the obligations, directly or indirectly associated with rendering the Contracted Services, of the person providing the Contracted Services.

“**Debt Service Reserve Fund**” shall mean the Debt Service Reserve Fund established in the Indenture.

“**Depository**” shall mean any securities depository that is a clearing agency under federal law operating and maintaining, with its participants or otherwise, a book-entry system to record ownership of book-entry interests in the Series 2022B/C/D Bonds, and to effect transfers of book-entry interests in the Series 2022B/C/D Bonds, and includes and means initially The Depository Trust Company (a limited purpose trust company), New York, New York.

“**Direct Payment**” means a credit payment allowed pursuant to Section 54AA(g) of the Code with respect to Direct Payment BABs that is payable to the Authority by the U.S. Treasury, as provided in Section 6431 of the Code, or any other payment by the U.S. Treasury to the Authority to subsidize or reimburse the Authority for all or a

portion of the interest cost that the Authority may incur on Indebtedness that qualifies for such payment under any successor or substantially similar program to Direct Payment BABs.

“Direct Payment BABs” means Indebtedness that constitutes “Build America Bonds” within the meaning of Section 54AA(d) of the Code and that are qualified bonds within the meaning of Section 54AA(g), the interest on which is includible in gross income for federal income tax purposes and with respect to which the Authority shall have made an irrevocable election to receive one or more Direct Payments.

“District General Obligation Bonds” shall mean the District general obligation bonds issued to finance capital projects of the System and the Aqueduct.

“District MOU relating to the Payment of General Obligation Debt” shall mean the Memorandum of Understanding between the Office of the Chief Financial Officer of the District of Columbia and the Authority dated as of March 13, 1998.

“District MOU relating to the PILOT” shall mean the Memorandum of Understanding between the Office of the Chief Financial Officer of the District of Columbia and the Authority dated as of January 29, 1998, as amended, including, without limitation, pursuant to a September 4, 2014 Memorandum of Understanding, as further amended and restated on December 15, 2014.

“EPA Grants” shall mean grants provided by the Environmental Protection Agency for the construction of water and wastewater projects.

“EPA Grant Account” shall mean the EPA Grant Account established in the Indenture.

“Event of Default” shall mean any of the events enumerated in Section 901 of the Master Indenture or otherwise in the Indenture.

“Fiscal Year” shall mean the twelve-month period, beginning on October 1 of one year and ending on September 30 of the following year, or such other fiscal year of 12 months as may be selected by the Authority.

“Fitch” shall mean Fitch Ratings, Inc. or its successors.

“Government Certificates” shall mean certificates representing proportionate ownership of Government Obligations, which Government Obligations are held by a bank or trust company organized under the laws of the United States of America or any of its states in the capacity of custodian of such certificates.

“Government Obligation” shall mean (a) bonds, notes and other direct obligations of the United States of America, (b) securities unconditionally guaranteed as to the timely payment of principal, if applicable, and interest by the United States of America, or (c) bonds, notes and other obligations of any agency of the United States of America unconditionally guaranteed as to the timely payment of principal and interest by the United States of America.

“Hedge Agreement” shall mean an Interest Rate Swap, cap, collar, floor, forward or other hedging agreement, arrangement or security however denominated, expressly identified pursuant to its terms as being entered into in connection with and in order to hedge interest rate fluctuations on all or a portion of any Indebtedness where (a) interest on such Indebtedness or such portion of such Indebtedness is payable at a variable rate of interest for any future period of time or is calculated at a varying rate per annum, and (b) a fixed rate is specified by the Authority in such agreement, or such Indebtedness, taken together with such agreement, results in a net fixed rate payable by the Authority for such period of time (the “Hedge Fixed Rate”), assuming the Authority and the party(ies) with whom the Authority has entered into the agreement make all payments required to be made by the terms of the agreement, provided that no such agreement may be entered into by the Authority unless any termination or similar payment which may be payable by the Authority thereunder is expressly subordinate to the obligation of the Authority on the Indebtedness.

“Holder” shall mean the owner of Bonds, Other System Indebtedness or the Subordinate Debt, as the case may be.

“Home Rule Act” shall mean the District of Columbia Home Rule Act, approved December 24, 1973 (P.L.93-198; 87 Stat. 774; D.C. Official Code §§ 1-201.01 et. seq.), as amended.

“IMA Capital Payments” shall mean the payments made to the Authority for shared capital costs of the wastewater portion of the System by the signatories to the Blue Plains Intermunicipal Agreement of 1985.

“Indebtedness” shall mean Senior Debt and Subordinate Debt.

“Indenture” shall mean the Master Indenture, as supplemented or amended by one or more Supplemental Indentures, including the Thirtieth Supplemental Indenture and the Thirty-First Supplemental Indenture.

“Independent Consulting Engineer” shall mean an independent engineer, who is not an employee of the Authority, but is experienced in the field of water, wastewater or stormwater (as appropriate) and licensed and registered as a professional engineer in the District.

“Interest Account” shall mean the Interest Account in the Bond Fund established in the Indenture.

“Interest Payment Dates” for the Series 2022B/C/D Bonds shall mean each April 1 and October 1, commencing [October 1, 2022], and thereafter during the time the Series 2022B/C/D Bonds are outstanding.

“Interest Rate Swap” shall mean a contract pursuant to which a party (the “Counterparty”) has agreed to make payments to the Authority during a particular period equal to the interest payable on specified Indebtedness or on a specified nominal amount at the actual rate or rates or, if on a nominal amount at a stated rate or rates, payable thereon and, in consideration therefor, the party obligated on the Indebtedness or otherwise executing the agreement agrees to make payments to the Counterparty equal to the interest required to be paid on the specified Indebtedness or stated to be due on the nominal amount during the period calculated as if the specified Indebtedness or nominal amount bore an assumed rate of interest specified in the contract.

“Master Indenture” shall mean the Master Indenture of Trust dated as of April 1, 1998, by and between the Authority and the Trustee.

“Moody’s” shall mean Moody’s Investors Service, Inc., New York, New York, or its successors.

“Net Proceeds” shall mean the gross proceeds from any insurance recovery or recovery in any condemnation proceeding remaining after payment of attorneys’ fees, fees and all other expenses incurred in collection of such gross proceeds.

“Net Revenues” shall mean Revenues less Operating Expenses.

“Operating Component” shall mean the portion of the Cost of Contracted Services (excluding any Debt Service Component) reasonably determined by an Authorized Representative of the Authority, in a certificate delivered to the Trustee from time to time, to be directly or indirectly attributable to the portion of the Costs of Contracted Services that represents operating expense for the provision of the Contracted Services; provided, however, if no such determination is made, all of the Cost of Contracted Services (excluding any Debt Service Component) will be treated as Operating Component.

“Operating Expenses” shall mean all current expenses directly or indirectly attributable to the ownership or operation of the System, including reasonable and necessary usual expenses of administration, operation, maintenance and repair, costs for billing and collecting the rates, fees and other charges for the use of or the services furnished by the System, the cost of purchased water, amounts to reimburse the Authority for administrative expenses incurred in connection with the System, insurance and surety bond premiums, credit enhancement and liquidity support fees, legal, engineering, auditing and financial advisory expenses, expenses and compensation of the Trustee,

and deposits into a self-insurance program as described in the Indenture. Operating Expenses shall not include any payments in lieu of taxes, allowance for depreciation and amortization. Operating Expenses shall also exclude expenses which constitute extraordinary, nonrecurring and non-continuing expenses of the System in the written opinion of the Qualified Independent Consultant.

“Operating Fund” shall mean the Operating Fund established in the Indenture.

“Operating Reserve Fund” shall mean the Operating Reserve Fund established in the Indenture.

“Operating Reserve Requirement” shall mean an amount equal to 60 days of Operating Expenses based on the Operating Expenses relating to the Fiscal Year prior to such calculation, or an amount determined by a Qualified Independent Consultant.

“Opinion of Counsel” shall mean an opinion of any attorney or firm of attorneys acceptable to the Trustee, who may be counsel for the Authority, but who shall not be an employee of either the Authority or the Trustee.

“Other System Indebtedness” shall mean (a) any Debt Service Component that the Authority is required, or has elected, to treat as payable on a parity with the Bonds with respect to the pledge of Net Revenues, and (b) any other Indebtedness incurred by the Authority pursuant to the Indenture that the Authority is required, or has elected, to treat as payable on a parity with the Bonds with respect to the pledge of Net Revenues, including, but not limited to, the Treasury Loans.

“Outstanding” shall mean, when used as descriptive of obligations, that such obligations have been authorized, issued, authenticated and delivered under the Indenture or a different document and have not been canceled or surrendered to the Trustee or a comparable trustee for cancellation, deemed to have been paid as provided in the Indenture, have had other obligations issued in exchange therefor or had their principal become due and moneys sufficient for their payment deposited with the Trustee as provided in the Indenture or, for Indebtedness other than Bonds or Subordinate Debt issued under the Indenture, otherwise so treated under comparable issuance documents. In determining whether holders of a requisite aggregate principal amount of the Outstanding Indebtedness have concurred in any request, demand, authorization, direction, notice, consent or waiver under the Indenture or other documents, words referring to or connoting “principal of” or “principal amount of” Outstanding Indebtedness shall be deemed also to be references to, to connote and to include the accreted value of Indebtedness of any Series as of the immediately preceding interest compounding date for such Indebtedness. Indebtedness that is owned by the Authority shall be disregarded and deemed not to be Outstanding for the purpose of any such determination.

“Permitted Investments” shall mean: (i) direct obligations of the United States of America (including obligations issued or held, in book-entry only form on the books of the Department of the Treasury of the United States of America and including certificates or other instruments evidencing ownership interests in such direct obligations of the United States of America) or obligations the timely payment of the principal of and interest on which are fully guaranteed by the United States of America; (ii) obligations issued or guaranteed by Federal Home Loan Bank System, Export-Import Bank of the United States, Federal Financing Banks, Government National Mortgage Association, Federal National Mortgage Association, Farmer’s Home Administration, Federal Home Loan Mortgage Corporation or Federal Housing Administration; or by any agency, department or instrumentality of the United States if such obligations are rated in one of the two highest rating categories by Fitch, S&P and Moody’s if in any such case the timely payment of principal and interest on such obligations is backed by the full faith and credit of the United States of America; (iii) investment agreements meeting the investment criteria issued by a credit enhancer; (iv) interest-bearing bankers acceptances or certificates of deposit of, or time deposits in any bank (including the Trustee), lead bank of a parent holding company, or any savings and loan associations whose unsecured obligations are rated in one of the two highest rating categories by Fitch, S&P and Moody’s, provided such deposits are either (a) secured at all times, in the manner and to the extent provided by law, by collateral security (described in clause (i) or (ii) of this definition) of a market value of no less than the amount of moneys so invested or (b) fully insured by the Federal Deposit Insurance Corporation; (v) repurchase agreements which satisfy the following criteria: (a) repurchase agreement which provides for the transfer of securities from dealer banks or securities firms to the Trustee or its agents, and the transfer of cash from the Trustee to the dealer bank or securities firm with an agreement that the dealer bank or securities firm will repay the cash, plus a yield to the Trustee, in exchange for the securities at a specified date; (b) repurchase agreement must be between the Trustee and a dealer bank or securities firm which are either a

primary dealer on the Federal Reserve reporting dealer list or a bank rated “A” or above by Fitch, S&P and Moody’s; (c) the written repurchase agreement must include the following terms: (1) securities which are acceptable for transfer are (A) direct United States government obligations, or (B) obligations of federal agencies backed by the full faith and credit of the United States government; (2) with respect to control of the collateral, if the dealer bank or securities firm supplied the collateral pursuant to the repurchase agreement, it may not retain possession of such collateral and the collateral must be delivered to the Trustee (unless the Trustee is supplying the collateral) or a third party acting as agent for the Trustee before or simultaneous with payment; and (3) the securities must be valued weekly, marked-to-market at current market price plus accrued interest, the value of collateral must be equal to 102% of the amount of cash transferred by the Trustee to the dealer bank or securities firm under the repurchase agreement, plus accrued interest, and if the value of securities held as collateral is less than 102% of the value of the cash transferred by Trustee, then additional cash and/or acceptable securities must be transferred; and (d) to the extent required by a credit enhancer, an opinion of Bond Counsel, to the effect that such repurchase agreements are obligations in which public funds are permitted to be invested under District law, shall be delivered to the Trustee, with a copy to the Series 1998 Bond Insurer; (vi) commercial paper of “prime” quality of the highest ranking or the highest rating category as provided by Fitch, S&P and Moody’s; (vii) obligations, the interest on which is exempt from federal income taxation, and which, if rated by the Rating Agencies, are rated by Fitch, Moody’s and S&P in one of the two highest rating categories of such rating agencies; (viii) a time deposit account drawn on the Trustee for amounts whose aggregation is less than \$5,000; (ix) mutual funds, including any such fund of the Trustee or any affiliate of the Trustee, which invest exclusively in any investment described in clauses (i) through (viii) otherwise left uninvested in the funds; and (x) Federally tax-exempt bonds which are not subject to the AMT for individuals and subject to a put option at par at least semi-annually and rated at least “double-A” by Moody’s, S&P or Fitch, and in the highest short-term rating category by such rating agency.

“Principal Account” shall mean the Principal Account in the Bond Fund established in the Indenture.

“Qualified Independent Consultant” shall mean an independent professional consultant having the skill and experience necessary to provide the particular certificate, report or approval required by the Indenture or any Supplemental Indenture in which such requirement appears, including an Independent Consulting Engineer and an independent certified public accountant.

“Rate Covenant” shall mean the obligation of the Authority to fix, charge, collect and revise rates, fees and other charges for the use of, and the services furnished by, the System sufficient to meet the requirements of the Indenture.

“Rate Stabilization Fund” shall mean the fund so designated which is established pursuant to the Indenture.

“Rating Agency” or **“Rating Agencies”** shall mean Fitch, Moody’s or Standard & Poor’s, or any of them, and their successors. The Authority may seek a rating from any other nationally recognized securities rating agency.

“Remaining Component” shall mean the portion of the Cost of Contracted Services which is not embraced in the definition of Debt Service Component or Operating Component.

“Renewal and Replacement Reserve Fund” shall mean the Renewal and Replacement Reserve Fund established in the Indenture.

“Renewal and Replacement Reserve Requirement” shall mean \$35,000,000 or such other amount as may be determined by a Qualified Independent Consultant, subject to approval by the Board of Directors.

“Reserve Determination Date” shall mean (a) each interest payment date for the Bonds, or (b) any other date established in writing by an Authorized Representative of the Authority for the valuation of obligations on deposit in any Series Debt Service Reserve Account.

“Revenues” shall mean all moneys received as income, rates, fees, charges, receipts, profits and other moneys derived by the Authority from its ownership and operation of the System, and for the use of and for the services furnished by the System, including Connection Fees, transfers from the Rate Stabilization Fund to the

Revenue Fund, proceeds of any business interruption insurance, and investment earnings on all of the funds held by the Trustee under the Indenture and the Authority, except any rebate fund that may be created under the Indenture. Revenues shall not include refundable customer deposits, the IMA Capital Payments or other payments solely in aid of construction, the EPA Grants or similar payments, or the proceeds resulting from the sale of all or a portion of the System. For purposes of determining the total amount of Revenues in any year, there shall be deducted an amount equal to the amount transferred from the System Fund to the Rate Stabilization Fund pursuant to the Indenture.

“Senior Debt” shall mean Bonds, including the Series 1998 Bonds, the Series 2014A Bonds, the Series 2017A Bonds, the Series 2017B Bonds, the Series 2018A Bonds, and the Series 2018B Bonds and Other System Indebtedness.

“Series” or **“Series of Bonds”** shall mean a separate series of Bonds issued under the Indenture and a Supplemental Indenture.

“Series Debt Service Reserve Requirement” for any Series of Bonds shall have the meaning set forth in the Supplemental Indenture authorizing such Series of Bonds.

“Series 2022B Bonds” shall mean the Authority’s Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds), issued pursuant to the Thirtieth Supplemental Indenture.

“Series 2022B Construction Account” shall mean the Series 2022B Construction Account established by the Thirtieth Supplemental Indenture in the Construction Fund.

“Series 2022B Costs of Issuance Subaccount” shall mean the Series 2022B Costs of Issuance Subaccount established by the Thirtieth Supplemental Indenture in the Series 2022B Construction Account of the Construction Fund.

“Series 2022C Bonds” shall mean the Authority’s Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C, issued pursuant to the Thirtieth Supplemental Indenture.

“Series 2022C Construction Account” shall mean the Series 2022C Construction Account established by the Thirtieth Supplemental Indenture in the Construction Fund.

“Series 2022C Costs of Issuance Subaccount” shall mean the Series 2022C Costs of Issuance Subaccount established by the Thirtieth Supplemental Indenture in the Series 2022C Construction Account of the Construction Fund.

“Series 2022B/C Bonds” shall mean the Series 2022B Bonds and the Series 2022C Bonds.

“Series 2022B/C Rebate Fund” shall mean the Series 2022B/C Rebate Fund established by the Thirtieth Supplemental Indenture.

“Series 2022B/C Resolution” shall mean the Resolution adopted by the Authority’s Board on September 5, 2019 authorizing the Series 2022B/C Bonds.

“Series 2022B/C Subordinate Bonds Interest Subaccount” shall mean the Series 2022B/C Subordinate Bonds Interest Subaccount established by the Thirtieth Supplemental Indenture in the Interest Account in the Bond Fund.

“Series 2022B/C Subordinate Bonds Principal Subaccount” shall mean the Series 2022B/C Subordinate Bonds Principal Subaccount established by the Thirtieth Supplemental Indenture in the Principal Account in the Bond Fund.

“Series 2022D Bonds” shall mean the Authority’s Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable), issued pursuant to the Thirty-First Supplemental Indenture.

“Series 2022D Construction Account” shall mean the Series 2022D Construction Account established by the Thirty-First Supplemental Indenture in the Construction Fund.

“Series 2022D Costs of Issuance Subaccount” shall mean the Series 2022D Costs of Issuance Subaccount established by the Thirty-First Supplemental Indenture in the Series 2022D Construction Account of the Construction Fund.

“Series 2022D Escrow Account” shall mean the Series 2022D Escrow Account established by this Thirty-First Supplemental Indenture.

“Series 2022D Resolution” shall mean the Resolution adopted by the Authority’s Board on [_____, 2022], respectively, authorizing the Series 2022D Subordinate Bonds.

“Series 2022D Subordinate Bonds Interest Subaccount” means the Series 2022D Subordinate Bonds Interest Subaccount established by this Thirty-First Supplemental Indenture in the Subordinate Interest Account in the Subordinate Bond Fund.

“Series 2022D Subordinate Bonds Principal Subaccount” means the Series 2022D Subordinate Bonds Principal Subaccount established by this Thirty-First Supplemental Indenture in the Subordinate Principal Account in the Subordinate Bond Fund.

“Series 2022B/C/D Bonds” shall mean, together, the Series 2022B Bonds, the Series 2022C Bonds and the Series 2022D Bonds.

“Service Contracts” shall mean any contracts or agreements for Contacted Services entered into by the Authority from time to time.

“Short-Term Obligations” shall mean Subordinate Debt issued pursuant to the Indenture, the payment of principal of which is scheduled to be payable within one year from the date of issuance and is contemplated to be refinanced either (a) through the issuance of additional Short-Term Obligations pursuant to a commercial paper or other similar program, or (b) through the issuance of Indebtedness.

“Sinking Fund Account” shall mean the Sinking Fund Account in the Bond Fund created in the Indenture.

“Standard and Poor’s” shall mean Standard & Poor’s Global Ratings Services, New York, New York, or its successors.

“Subordinate Bond Fund” shall mean the Subordinate Bond Fund created in the Indenture.

“Subordinate Debt” shall mean the Series 2010A Bonds, the Series 2012A Bonds, the Series 2012C Bonds, the Series 2013A Bonds, the Series 2014B Bonds, the Series 2014C Bonds, the Series 2015A Bonds, the Series 2015B Bonds, the Series 2016A Bonds, and the Series 2016B Bonds, the Series A EMCP Notes, and the Series C CP Notes (taxable), and any other bonds, notes or other obligations issued in connection with the System (a) which are expected to be paid from Net Revenues and designated by the Authority as Subordinate Debt, and (b) which have pledged to their payment Net Revenues as a subordinate lien pledge after the pledge of Net Revenues to Senior Debt, including but not limited to any Debt Service Component and Remaining Component that the Authority is required, or has elected, to treat as Subordinate Debt, and the District General Obligation Bonds.

“Subordinate Debt Service Reserve Fund” shall mean the Subordinate Debt Service Reserve Fund created in the Indenture.

“Supplemental Indenture” shall mean any Supplemental Indenture supplementing or modifying the provisions of the Indenture entered into by the Authority and the Trustee pursuant to the Indenture.

“**System**” shall mean all plants, systems, facilities, equipment, real and personal property and tangible and intangible property, together with all future extensions, improvements, enlargements and additions thereto, and all replacements thereof, used, or to be used, in connection with the collection, transmission, treatment and disposal of wastewater and stormwater flow, and the supply, treatment, storage and distribution of water.

“**Tender Indebtedness**” shall mean any indebtedness a feature of which is an option or obligation on the part of the holders of such indebtedness to tender all or a portion of such indebtedness to a fiduciary for purchase or redemption prior to the stated maturity date of such indebtedness, which may include Variable Rate Indebtedness with such a feature.

“**Term Bonds**” shall mean any Bonds stated to mature on a specified date and required to be redeemed in part prior to maturity according to a sinking fund schedule.

“**Treasury Loans**” shall mean those certain obligations of the Authority to make payments related to debt service on certain promissory notes from the Secretary of the Army to the United States Treasury set forth in the Water Sales Agreement and any future obligations of the Authority to the United States of America consistent therewith.

“**Trustee**” shall mean Computershare Trust Company, National Association, as successor to Norwest Bank Minnesota, National Association, or its successors serving as such under the Indenture.

“**Trustee’s Fees and Expenses**” shall mean an initial acceptance fee and an annual administrative fee plus expenses in accordance with the fee schedule set forth in an agreement between the Trustee and the Authority, as the same may be renegotiated from time to time.

“**Thirtieth Supplemental Indenture**” shall mean the Thirtieth Supplemental Indenture of Trust, dated February [], 2022 by and between the Authority and the Trustee.

“**Thirty-First Supplemental Indenture**” shall mean the Thirty-First Supplemental Indenture of Trust, dated February [], 2022, by and between the Authority and the Trustee.

“**Variable Rate Indebtedness**” shall mean any indebtedness the interest rate on which is not established at the time of incurrence at a fixed or constant rate, provided that (a) the maximum interest rate on such indebtedness and the maximum rate payable to any liquidity provider with respect to such indebtedness shall be specified at the time of issuance of such indebtedness; (b) any liquidity facility of any liquidity provider shall cause such indebtedness to be rated by a Rating Agency in one of the two highest short-term rating categories of such Rating Agency; (c) any accelerated principal payments or any interest in excess of the bond interest rate payable to such liquidity provider shall be subordinate to the payment of debt service on Bonds, and (d) any two or more series of Bonds that are issued on the same date, the interest on which when such series are considered in the aggregate shall be a fixed or constant rate, shall not be considered Variable Rate Indebtedness.

“**WASA Act**” shall mean the Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996, as amended, D.C. Code Sections 34-2201.01 et seq.

“**Water Sales Agreement**” shall mean the Water Sales Agreement dated as of July 31, 1997, by and between the United States of America, acting through the Secretary of the Army, and the Authority.

SUMMARY OF INDENTURE

The following is a summary of certain provisions of the Indenture. It is not a complete recital of the terms of the Indenture. Unless otherwise noted, section numbers shown parenthetically refer to the Master Indenture; those preceded by the prefix "TSI" refer to the Thirtieth Supplemental Indenture or the Thirty-First Supplemental Indenture.

Security (Granting Clauses)

The Authority, to provide for the payment of each Series of Bonds and Subordinate Debt issued under the Indenture and to secure the performance and observance of all the covenants, agreements and conditions in such Bonds, Subordinate Debt, Other System Indebtedness or credit enhancement agreements, does grant a security interest in, assign, transfer, pledge and grant and convey unto the Trustee and its successors and assigns forever, for the benefit of the holders of the Indebtedness and credit enhancers, if any, until the applicable credit enhancement is no longer outstanding and no amounts are due under the related documents, the following property: (A) amounts on deposit from time to time, and any investment earnings thereon, in the Bond Fund and Debt Service Reserve Fund (with respect to related Senior Debt), in the Subordinate Bond Fund and the Subordinate Debt Service Reserve Fund (with respect to related Subordinate Debt) and any other funds and accounts created pursuant to the Indenture, including the earnings thereon, subject to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein; provided, however, that there expressly is excluded from any pledge, assignment, lien or security interest created by the Indenture any amount on deposit in the Operating Fund; (B) amounts constituting Net Revenues pledged pursuant to the Indenture; (C) any and all other property of any kind from time to time thereafter by delivery or by writing of any kind specifically conveyed, pledged, assigned or transferred, as and for additional security under the Indenture for the Bonds, by the Authority or by anyone on its behalf or with its written consent in favor of the Trustee, which is authorized to receive any and all such property at any and all times and to hold and apply the same subject to the terms of the Indenture; and (D) all right, title and interest of the Authority owned or hereafter acquired in and to proceeds from the sale of Bonds or Subordinate Debt issued under the Indenture required to be deposited in the Construction Account pursuant to the provisions of the Indenture (except as limited by the following provisos) and all right, title, and interest in and to the investments held in the Construction Account (except as limited by the following provisos) pursuant to the provisions of the Indenture; provided, however, that the Authority may establish one or more separate accounts in the Construction Account to be funded with proceeds of any particular Series of Bonds or Subordinate Debt issue, which accounts and the proceeds of the particular Series of Bonds deposited therein (together with all investments thereof and investment income earned thereon) may be pledged solely to the payment of one or more designated Series of Bonds or Subordinate Debt issue for any designated periods, or otherwise, all as permitted in the Indenture, including any Supplemental Indenture.

To have and to hold all properties pledged, assigned and conveyed by the Authority under the Indenture including all additional property which by the terms thereof has or may become subject to the encumbrance thereof, unto the Trustee and its successors in trust and its assigns forever, subject, however, to the rights reserved under the Indenture.

To have and to hold in trust upon the terms and trusts set forth in the Indenture for the equal and proportionate benefit, security and protection of all Holders from time to time of all Senior Debt issued thereunder or under other documents and secured by the Indenture, without privilege, priority or distinction as to lien or otherwise of any of the Senior Debt over any of the others except as otherwise provided in the Indenture, and on a basis subordinate and junior thereto, upon the terms and trusts therein set forth for the equal and proportionate benefit, security and protection of all Holders and related credit enhancers from time to time of all Subordinate Debt issued under the Indenture or under other documents and secured by the Indenture, without privilege, priority or distinction as to lien or otherwise of any of the Subordinate Debt over any of the others, except as otherwise provided in the Indenture.

However, if the Authority shall pay fully and promptly when due all liabilities, obligations and sums at any time secured thereby or provide for the payment thereof in accordance with the Indenture, and shall promptly, faithfully and strictly keep, perform and observe, or cause to be kept, performed and observed, all of the covenants, warranties and agreements of the Indenture and related documents, then the Indenture shall be and become void and of no further force and effect; otherwise, the same shall remain in full force and effect, and upon the trusts and subject to the covenants and conditions set forth in the Indenture.

Purposes of Bonds (Section 301)

Bonds may be issued (a) to pay Costs, (b) to refund any Indebtedness secured by or payable from Net Revenues, including any Bonds, or (c) for a combination of such purposes.

Parity Senior Debt (Section 302)

The Indenture constitutes a continuing irrevocable pledge of Net Revenues to secure payment of the principal of, premium, if any, and interest on all Senior Debt that may from time to time be issued and Outstanding. Each Senior Debt issue shall be issued pursuant to a Supplemental Indenture or evidenced by other documents and shall be equally and ratably secured by the pledge of Net Revenues under the Indenture, without preference, priority or distinction; provided, however, that the moneys in any Series Debt Service Reserve Account shall only secure the applicable Series of Senior Debt, and provided further that any Senior Debt may have additional revenues or other security pledged to its payment. Nothing in the Indenture shall be construed, as (a) requiring that any Senior Debt bear interest at the same rate or in the same manner as any other Senior Debt, have the same, or an earlier or later, maturity, or be subject to mandatory, optional or extraordinary redemption prior to maturity on the same basis as any other Senior Debt, (b) prohibiting the Authority from entering into financial arrangements designed to assure that moneys will be available for the payment of certain Senior Debt at its maturity, or (c) prohibiting the Authority from pledging moneys or assets of the Authority other than those pledged in the Indenture for the benefit of certain Senior Debt.

Conditions for Issuing Bonds (Section 303)

The Indenture requires that certain documents be filed with the Trustee prior to the issuance and authentication of any Series of Bonds. These requirements include a requirement that if the Bonds are issued to pay Costs, except in the case of the initial Series of Bonds issued under the Indenture, the Authority provide the Trustee with (1) 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 (2) either (A) a certificate of the CEO and General Manager, the Chief Financial Officer or Authorized Representative of the Authority, stating that based on the Authority's financial records for any 12 consecutive months of the last 18 months prior to the issuance of such Bonds, the Authority would have been able to meet the Rate Covenant, taking into account (i) the maximum Annual Debt Service on the proposed additional Series of Bonds in the current or any future Fiscal Year, and (ii) the rates, fees and other charges which are in effect and any future changes therein as have been approved by the Board of Directors at the time of the delivery of the proposed additional Series of Bonds, or (B) 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 and that demonstrates that, on the basis of such projection, the Authority can comply with the Rate Covenant, taking into account those rates, fees and other charges which are in effect at the time of the delivery of the proposed additional Series of Bonds and any future changes therein as have been approved by the Board of Directors of the Authority at the time of the delivery of the proposed additional Series of Bonds.

The Indenture also requires as a condition of issuance where Bonds are issued to refund any Indebtedness, the following: (1) evidence that the Authority has made provision as required by the Indenture for the payment or redemption of all indebtedness to be refunded; (2) either (A) a written determination by the CEO and General Manager, the Chief Financial Officer, or Authorized Representative of the Authority, or other evidence satisfactory to the Trustee that after the issuance of such Bonds and the provision for payment or redemption of all Indebtedness to be refunded, 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, including the Indebtedness to be refunded (if such Indebtedness was Senior Debt), and that the final maturity of Indebtedness being refunded has not been extended, or (B) a certificate of the CEO and General Manager, the Chief Financial Officer or Authorized Representative of the Authority, stating that based on the Authority's financial records for any 12 consecutive months of the last 18 months prior to the issuance of such Bonds, the Authority would have been able to meet the Rate Covenant, taking into account (i) the maximum Annual Debt Service on the proposed additional Series of Bonds in the current or any future Fiscal Year, but not the actual debt service on the Indebtedness to be refunded, and (ii) the rates, fees and other charges which are in effect and any future changes therein as have been approved by

the Board of Directors 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 such projection does not include the actual debt service for any Indebtedness to be refunded, and demonstrates, on the basis of such projection, that the Authority can comply with the Rate Covenant, taking into account those rates, fees and other charges which are in effect at the time of the delivery of the proposed additional Series of Bonds and any future changes therein as have been approved by the Board of Directors at the time of the delivery of the proposed additional Series of Bonds.

Other System Indebtedness (Section 304)

The Authority may incur or refinance Other System Indebtedness provided that (1) the documents relating to the Other System Indebtedness acknowledge that such debt constitutes Other System Indebtedness under the Indenture and is subject to the applicable terms and conditions thereof, specify the amounts and due dates of Annual Debt Service with respect to the Other System Indebtedness, (2) certain requirements of the Indenture for issuing Bonds described under “Conditions for Issuing Bonds (Section 303)” have been met as if the Other System Indebtedness was an additional Series of Bonds, (3) 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 (4) 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 Authority shall fulfill its obligations under all contracts or agreements creating Other System Indebtedness as they may exist from time to time.

Parity Subordinate Debt (Section 305)

Notwithstanding anything in the Indenture to the contrary, the Authority may at any time issue additional Subordinate Debt on a parity with the Outstanding 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. Subordinate Debt may not be accelerated if any Senior Debt is outstanding.

Treatment of Direct Payments in Connection with Additional Indebtedness (Section 306)

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 (whether previously issued or proposed to be issued by the Authority) in connection with any proposed issuance of additional Subordinate Debt, 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.

Custody and Application of Bond Proceeds (Section 501; TSI Section 501)

The proceeds of Bonds which are issued to pay Costs of the System shall be held in trust by the Trustee and used solely to pay Costs of the System. The proceeds of Bonds which are issued to refund any Indebtedness secured by or payable from Net Revenues, shall be held by the Trustee, an escrow agent or other party, as specifically provided in the Supplemental Indenture related to such refunding. The Indenture establishes a Construction Fund, to be held by the Authority. Amounts on deposit in the Construction Fund shall be used to pay Costs. The Trustee established a Construction Account, for the benefit of the holders of the Bonds which shall be considered part of the Construction Fund. The Authority established an EPA Grant Account and a Payments in Aid of the Construction Account in the Construction Fund to be held by the Authority. The proceeds of a Series of Bonds shall be deposited in the related Series Construction Subaccount. Reimbursements from EPA Grants and similar payments shall be deposited in the EPA Grant Account, IMA Capital Payments and other payments in aid of construction shall be deposited in the Payments in Aid of Construction Account. The Authority may establish additional Accounts and subaccounts within the Construction Fund as may be provided in a Supplemental Indenture. The Thirtieth Supplemental Indenture establishes the Series 2022B Construction Account in the Construction Fund, which shall be used for payment of the

Costs of the System, and within the Series 2022B Construction Account, a Series 2022B Cost of Issuance Subaccount, which shall be used for the payment of costs of issuance of the Series 2022B Bonds. The Thirtieth Supplemental Indenture also establishes the Series 2022C Construction Account in the Construction Fund, which shall be used for payment of the Costs of the System, and within the Series 2022C Construction Account, a Series 2022C Cost of Issuance Subaccount, which shall be used for the payment of costs of issuance of the Series 2018B Bonds. The Thirty-First Supplemental Indenture establishes the Series 2022D Construction Account in the Construction Fund, which shall be used for payment of the Costs of the System, and within the Series 2022D Construction Account, a Series 2022D Cost of Issuance Subaccount, which shall be used for the payment of costs of issuance of the Series 2022D Bonds (TSI Section 501).

Deposits shall be made to the credit of the Construction Fund and any Accounts and subaccounts as provided in the applicable Supplemental Indenture. All earnings on moneys in each Account and subaccount shall be credited to such Account and subaccount. Payments from the Construction Account may be made upon submittal by the Chief Financial Officer of an appropriate requisition form to the Trustee on a bi-weekly, or less often basis. The Trustee shall pay the costs listed in the requisition within 2 days of receipt thereof. The Trustee shall retain copies of all such requisitions and shall pay the obligations set forth in the requisition out of money in the applicable Series Subaccount in the Construction Account. When all items of Costs have been paid or moneys have been reserved to pay all remaining unpaid Costs, the balance of any Bond proceeds remaining in excess of the amount to be reserved for payment of unpaid Costs shall be (a) transferred to the Bond Fund to be used solely to pay principal of and interest on the Series of Bonds which provided such proceeds to the extent approved by Bond Counsel, or (b) used to pay all or any portion of the Costs designated by the Authority and approved by Bond Counsel, but the balance of any Series 2022B/C/D Bond proceeds remaining in excess of the amount to be reserved for payment of unpaid Costs shall be deposited in the Bond Fund to be used solely to pay principal of and interest on the Series 2022B/C/D Bonds, to the extent approved by Bond Counsel.

Costs of the System (Section 502)

Costs shall mean any and all reasonable expenses related to the purposes or activities of the Authority including expenses for operating and maintenance activities; expenses for preconstruction and construction, acquisition, alteration, improvement, enlargement of furnishing, fixturing and equipping, reconstruction and rehabilitation of the water distribution and wastewater and stormwater collection, treatment, and disposal systems of the Authority, including without limitation, the purchase or lease expense for all lands, structures, real or personal property, rights, rights-of-way, roads, franchises, easements, and interest acquired or used for, or in connection with the Authority; the expenses of demolishing or removing buildings or structures on land acquired by the Authority, including the expenses incurred for acquiring any lands to which the buildings may be moved or located; the expenses incurred for all utility lines, structures or equipment charges, and interest on financial obligations incurred for a period as the Authority may reasonably determine to be necessary for the effective functioning of the water distribution and wastewater and stormwater collection, treatment, and disposal systems; provisions for reserves, enlargements, additions, and improvements; expenses incurred for architecture, engineering, energy efficiency technology, design and consulting, financial and legal services, letters of credit, bond insurance, debt service or debt service reserve insurance, surety bonds or similar credit enhancement instruments, plans, specification studies, surveys, and estimates of expenses and of revenues; expenses necessary or incident to determining the feasibility of improvements to the water distribution and wastewater and stormwater collection, treatment, and disposal systems, the financing of such improvements, including a proper allowance for contingencies, and the provision of reasonable initial working capital for operating the improved systems and expenses for obtaining potable water for distribution.

Rate Covenant (Section 601)

The Authority shall fix, charge and collect such rates, fees and other charges for the use of and the services furnished by the System and shall, from time to time and as often as shall appear necessary, revise such rates, fees and other charges so as to meet the following two independent requirements:

(1) Revenues, shall be sufficient in each Fiscal Year to pay (A) the actual Operating Expenses for such Fiscal Year, (B) the amount required to pay Annual Debt Service on Senior Debt in such Fiscal Year, (C) any amount necessary to be deposited in any Series Debt Service Reserve Account to restore the amount on deposit therein to the amount of the Series Debt Service Reserve Requirement, (D) the amount required to pay Annual Debt Service on

Subordinate Debt in such Fiscal Year (including 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 payments in lieu of taxes in such Fiscal Year.

(2) Net Revenues shall be sufficient in each Fiscal Year to be at least equal to the sum of (A) 120% of the Annual Debt Service with respect to Senior Debt for such Fiscal Year, and (B) 100% of Annual Debt Service with respect to Subordinate Debt for such Fiscal Year.

From and after the date of the Twelfth Supplemental Indenture, for purposes of determining the Authority's compliance with the Rate Covenant (but not for the purposes of determining compliance with the Indenture's restrictions on the Authority's issuance of additional Senior Debt or additional Subordinate Debt), 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.

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 "Disposition of Revenues" 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. If the Authority promptly revises its rates, fees, charges, operations, services and procedures in conformity with the report and recommendations of the Qualified Independent Consultant and otherwise follows such recommendations to the extent permitted by law so that the Authority is expected to be, when its actions become fully effective, in compliance with the Rate Covenant, then any failure to meet the Rate Covenant will not constitute an Event of Default under the Indenture so long as no other Event of Default has occurred and is continuing.

Annual Budget (Section 602)

Before the beginning of each Fiscal Year, the Authority shall adopt a budget for the operation of the System for the ensuing Fiscal Year, which shall be called the Annual Budget. The Annual Budget shall be prepared in such manner as to show in reasonable detail (1) Revenues estimated to be received during such Fiscal Year, (2) Operating Expenses expected to be incurred during such Fiscal Year, (3) the amount of principal of, premium, if any, and interest on the Bonds that will become due during such Fiscal Year, (4) the amount of principal of, premium, if any, and interest on Other System Indebtedness that will become due during such Fiscal Year, (5) any amount necessary to be deposited in the Debt Service Reserve Fund to restore the amount on deposit in each Account therein to the amount of the applicable Series Debt Service Reserve Requirement, (6) any amount necessary to be deposited in the Operating Reserve Fund to restore the amount on deposit therein to the amount of the Operating Reserve Requirement, (7) any amount necessary to be deposited in the Renewal and Replacement Reserve Fund to restore the amount on deposit therein to the amount of the Renewal and Replacement Reserve Requirement, (8) the amount of principal of, premium, if any, and interest on the Subordinate Debt that will become due during such Fiscal Year, (9) any amount necessary to be deposited in the Subordinate Debt Service Reserve Fund to restore the amount on deposit therein to the amount of the Subordinate Debt Service Reserve Requirement, and (10) the amount of Net Revenues available during such Fiscal Year to meet the Rate Covenant. The Annual Budget shall be prepared in sufficient detail to show the amounts to be deposited in the various funds, Accounts and subaccounts created by or under the Indenture or funds and accounts otherwise required to be maintained on behalf of the System. The Authority may amend the Annual Budget at any time during the Fiscal Year. If for any reason an Annual Budget has not been adopted within the time required in the Indenture, the last previously adopted Annual Budget shall be deemed to provide for and regulate and control expenditures during such Fiscal Year until an Annual Budget for such Fiscal Year has been adopted. A copy of the Annual Budget and any amendments thereto shall be filed promptly with the Trustee.

Funds and Accounts (Section 603)

The Indenture establishes the following funds and Accounts to be held by the Authority or Trustee, as applicable: (a) Revenue Fund to be held by the Authority, subject to the lien of the Indenture (the Water and Sewer Authority Enterprise Fund created pursuant to Section 207 of the WASA Act, codified, as amended, at D.C. Code Section 34-2202.07, constitutes the Revenue Fund); (b) Operating Fund to be held by the Authority not subject to the lien of the Indenture (the Operating and Maintenance Account created pursuant to Section 154 of Public Law 104-134, codified at D.C. Code Section 34-2202.41, constitutes the Operating Fund); (c) Bond Fund, in which there shall be established an Interest Account, a Principal Account and a Sinking Fund Account, and a separate subaccount in each such Account with respect to each Series of Bonds or Other System Indebtedness issued under the Indenture, as applicable, to be held by the Trustee, subject to the lien of the Indenture; (d) Debt Service Reserve Fund, in which there shall be established a Series Debt Service Reserve Account for each Series of Bonds or Other System Indebtedness issue which has a Series Debt Service Reserve Requirement, to be held by the Trustee, subject to the lien of the Indenture; (e) Operating Reserve Fund to be held by the Authority, subject to the lien of the Indenture; (f) Renewal and Replacement Reserve Fund to be held by the Authority, subject to the lien of the Indenture; (g) Subordinate Bond Fund to be held by the Trustee, subject to the lien of the Indenture; (h) Subordinate Debt Service Reserve Fund to be held by the Trustee, subject to the lien of the Indenture; (i) Rate Stabilization Fund to be held by the Authority, subject to the lien of the Indenture; and (j) System Fund to be held by the Authority, subject to the Lien of the Indenture.

Disposition of Revenues (Section 604)

All Revenues 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 the Authority held funds to the Trustee, and the Trustee shall hold such moneys in trust for the beneficiaries under the Indenture. From and after the occurrence of such Event of Default, the Authority shall deliver all Revenues to the Trustee as and when received. Prior to any such Event of Default, throughout the month, but no later than the last Business Day of 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 (except that no distinction or preference shall exist in the use in an amount sufficient to make the following deposits of Net Revenues for payment into the Interest Account, the Principal Account or the Sinking Fund Account of the Bond Fund, such accounts being on a parity with each other as to payment from Net Revenues):

(a) To the Bond Fund:

(1) to the subaccounts established for each Series of Bonds or Other System Indebtedness in the Interest Account, the amounts, if any, set forth in the applicable Supplemental Indenture with respect to each Series of Bonds or Other System Indebtedness; provided, however, that if such Other System Indebtedness is evidenced by documents other than a Supplemental Indenture, to the related interest accounts set forth therein, as applicable; and such deposits shall be adjusted to give credit for any other available money then in such interest account or subaccount, or otherwise available and designated to be used for such purpose. Moneys in the Interest Account shall be used to pay interest required to be paid on any interest payment date related to such Series of Bonds or Other System Indebtedness, as applicable.

(2) to the subaccounts established for each Series of Bonds or Other System Indebtedness in the Principal Account and Sinking Fund Account, the amounts, if any, set forth in the applicable Supplemental Indentures with respect to each Series of Bonds or Other System Indebtedness; provided, however, that if such Other System Indebtedness is evidenced by documents other than a Supplemental Indenture, to the related principal account and sinking fund account set forth therein, as applicable; and such deposits shall be adjusted to give credit for any other available money then in the principal or sinking fund account or subaccount or otherwise available and designated to be used for such purpose. Moneys in the Principal Account shall be used to pay principal required to be paid on any principal payment date related to such Series of Bonds or Other System Indebtedness, as applicable. Moneys in the Sinking Fund Account shall be used to pay the amount required for mandatory sinking fund redemption on the applicable redemption date related to such Series of Bonds or Other System Indebtedness, as applicable.

(b) 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; and to the extent applicable, amounts necessary to restore the amount on deposit in the debt service reserve fund related to Other System. Indebtedness to the amounts required to be on deposit therein, and such amounts shall be transferred to such fund.

(c) To the Operating Reserve Fund, the amounts, if any, necessary to restore the amounts on deposit therein to the Operating Reserve Requirement. Such amounts shall be funded within 24 months of withdrawal by depositing in such fund 1/24 of the Operating Reserve Requirement on the last Business Day of each month after such withdrawal, if necessary. Moneys 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 moneys on deposit in the Bond Fund are insufficient to make the required interest and principal payments, moneys in the Operating Reserve Fund shall be used prior to any withdrawal from the Debt Service Reserve Fund, to satisfy any such deficiencies.

(d) To the Renewal and Replacement Reserve Fund, an amount equal to the Renewal and Replacement Reserve Requirement. Such amounts shall be funded within 24 months of the applicable Closing Date to the extent not already deposited by depositing 1/24 of the Renewal and Replacement Reserve Requirement on the last Business Day of each month in such fund. In addition, to the extent that there has been a withdrawal from such fund, the Trustee shall deposit Net Revenues to the fund, in the amounts necessary to make the amounts on the 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. Moneys 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 moneys on deposit in the Bond Fund and the Operating Reserve Fund are insufficient to make the required interest and principal payments, moneys 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.

(e) To the Subordinate Bond Fund, the amount equal to the deposits to such funds and accounts required by the related Supplemental Indenture or other documents evidencing such debt. To the extent that Subordinate Debt is issued pursuant to Subordinate Debt documents, applicable amounts shall be transferred to the respective Subordinate Debt trustee.

(f) 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 debt service reserve requirement or to reimburse the provider of any Qualified Reserve Credit Facility for amounts drawn thereunder and to pay related costs. To the extent that the Subordinate Debt is issued pursuant to Subordinate Debt Documents, applicable amounts shall be transferred to the respective Subordinate Debt trustee.

(g) To the System Fund, any moneys remaining in the Revenue Fund after all deposits and transfers required by subsections (a) through (f) of Section 604 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 were required or are required be used to make the following payments:

(1) on each May 15 and quarterly thereafter, to the District to make the payment in lieu of taxes required by the District MOU relating to the PILOT;

(2) on September 1, 1998, an amount retained by the Authority in the System Fund necessary to satisfy the Cash Reserve Requirement;

(3) on each September 1, commencing September 1, 1999: (a) an amount to the District to make those certain principal and interest prepayments related to the District General Obligation Bonds pursuant to the District MOU relating to the Payment of General Obligation Debt; and (b) an amount retained by the Authority in the System Fund necessary to satisfy the Cash Reserve Requirement; and

(4) at any time to the Rate Stabilization Fund, the amount that the CEO and General Manager may determine, in his discretion, to transfer to the Rate Stabilization Fund.

With respect to prepayments made pursuant to section (g)(3)(a) above, if the Authority does not have Net Revenues sufficient to make such payment on September 1 of such fiscal year, the Authority must make such payment no later than November 1 of such fiscal year. Failure to make such payment prior to November 1 shall not constitute an Event of Default.

The Authority shall provide the Trustee with a monthly certificate which certifies that the transfers required by subsections (c), (d) and (g) have been made and sets forth the respective balances of such funds. If the Authority fails to make the transfers required by subsections (a) through (g) the Trustee shall give notice of such failure to the Authority within 10 days of such failure. Notwithstanding anything in the Indenture to the contrary, at any time that the Authority is required to make transfers pursuant to subsections (a) through (g), and there are insufficient Net Revenues to make all required transfers pursuant to such subsections, the Authority shall make the transfers in the order set forth above first from Net Revenues, then from any other legally available monies. In the event the balance on deposit in the Principal Account, Sinking Fund Account or the Interest Account is insufficient for the purposes thereof, the Authority shall transfer to the Trustee for deposit in such Accounts such amounts as may be necessary therefor first from the Operating Reserve Fund, second from the Renewal and Replacement Fund, and then from the applicable Series Debt Service Reserve Account pursuant to the section entitled "Debt Service Reserve Fund (Section 606)". The Trustee shall provide for a mandatory sinking fund redemption of any Term Bonds in accordance with the schedules set forth in the Supplemental Indenture for such Bonds; provided, however, that on or before the 70th day next preceding any such sinking fund payment date, the Authority may: (1) deliver to the Trustee for cancellation Term Bonds of the maturity required to be redeemed on such sinking fund payment date in any aggregate principal amount desired; or (2) instruct the Trustee to apply a credit against the Authority's next sinking fund redemption obligation for any such Term Bonds that previously have been redeemed (other than through the operation of the sinking fund) and canceled but not theretofore applied as a credit against any sinking fund redemption obligation. Upon the occurrence of any of the events described in the subsections (1) or (2) above, the Trustee shall credit against the Authority's sinking fund redemption obligation on the next sinking fund payment date the amount of such Term Bonds so delivered or previously redeemed. Any principal amount of such Term Bonds in excess of the principal amount required to be redeemed on such sinking fund payment date shall be similarly credited in such order as may be determined by the Authority against future payments to the Sinking Fund Account and shall similarly reduce the principal amount of the Term Bonds of the applicable Series to be redeemed on the next sinking fund payment date. Within seven days of receipt of such Term Bonds or instructions to apply as a credit, any amounts remaining in the Sinking Fund Account in excess of the amount required to fulfill the remaining required sinking fund redemption obligation on the next sinking fund payment date shall be used in such manner as determined at the direction of the Authority. In the event the amount on deposit in the Interest Account on any interest payment date shall exceed the amount required to pay interest on the Senior Debt on the next interest payment date, the Authority shall, if the amount on deposit in any Series Debt Service Reserve Account is less than the applicable Series Debt Service Reserve Requirement, instruct the Trustee to transfer such excess to any Series Debt Service Reserve Account to the extent of such deficiency, and otherwise retain any remaining excess in the Interest Account or instruct the Trustee to transfer any remaining excess to the related Principal Account to be credited against subsequent required deposits thereto, as determined by the Authority.

If the amount on deposit in the Principal Account or Sinking Fund Account on any principal or mandatory redemption payment date exceeds the amount required on such date to pay Bonds at maturity or to redeem Term Bonds pursuant to mandatory sinking fund requirements, the Authority shall, if the amount on deposit in any Series Debt Service Reserve Account is less than the applicable Series Debt Service Reserve Requirement, instruct the Trustee to transfer such excess to the Series Debt Service Reserve Account to the extent of such deficiency, and otherwise retain such excess in the Principal Account or instruct the Trustee to transfer such excess to the Interest Account to be credited against subsequent required deposits thereto, as determined by the Authority.

With respect to the Direct Payments 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.

Rate Stabilization Fund (Section 605)

The Rate Stabilization Fund authorized by the Indenture shall be held by the Authority in an Account separate and apart from all other funds and Accounts of the Authority and payments therefrom shall be made as provided in the Indenture. Moneys may be transferred by the Authority to the Rate Stabilization Fund from the System Fund as provided in the section captioned "Disposition of Revenues (Section 604)" as determined by the Authority. At any time the Authority may transfer from the Rate Stabilization Fund to the Revenue Fund the amount determined by the Authority to be transferred from the Rate Stabilization Fund.

Debt Service Reserve Fund (Section 606)

Each Supplemental Indenture under which a Series of Bonds is issued shall establish an Account in the Debt Service Reserve Fund related to such Series of Bonds that shall be funded pursuant to the terms of a Supplemental Indenture. The Series Debt Service Reserve Requirement shall be deposited in the Account related to such Series. Amounts in each Account in the Debt Service Reserve Fund shall be used to pay debt service on the related Series of Bonds on the date such debt service is due when insufficient funds for that purpose are available in the Bond Fund; provided, however, that all amounts in an Account in the Debt Service Reserve Fund shall be used, together with other amounts available for such purpose under the Indenture, to provide for payment of the related Series of Bonds when the aggregate of such amounts is sufficient for such purpose. Amounts in each Account of the Debt Service Reserve Fund shall be pledged to Holders of Bonds of the related Series. The Debt Service Reserve Fund has not been pledged as security for the payment of any Subordinate Debt.

In lieu of or in addition to cash or investments, at any time the Authority may cause to be deposited to the credit of any Series Debt Service Reserve Account any form of credit facility, including a surety bond, in the amount of all or a portion of the Series Debt Service Reserve Requirement, irrevocably payable to the Trustee as beneficiary for the Holders of the respective Series of Bonds, provided that the Trustee has received evidence satisfactory to it that (a) the provider of the credit facility has a credit rating in one of the two highest credit rating categories by two Rating Agencies, (b) the obligation of the Authority to pay the fees of and to reimburse the provider of the credit facility is subordinate to its obligation to pay debt service on the respective Series of Bonds, (c) the term of the credit facility is at least 36 months, (d) the only condition to a drawing under the credit facility is insufficient amounts in the applicable funds and Accounts held by the Trustee with respect to such Series of Bonds when needed to pay debt service on such Series or the expiration of the credit facility, and (e) the provider of the credit facility shall notify the Authority and the Trustee at least 24 months prior to the expiration of the credit facility. If (1) the Authority receives such expiration notice and the provider of such credit facility does not extend its expiration date, (2) the Authority receives notice of the termination of the credit facility, or (3) the Authority receives notice that the provider of such credit facility no longer has a credit rating in one of the two highest credit rating categories by two Rating Agencies, the Authority immediately shall (A) provide a substitute credit facility that meets the requirements set forth in the foregoing sentences, (B) deposit the Series Debt Service Reserve Requirement to the respective Series Debt Service Reserve Account (i) in equal monthly installments over the next succeeding 24 months in the case of receipt of an expiration notice, (ii) prior to the termination date in the case of receipt of a termination notice, or (iii) immediately in the case of such reduction in credit rating, or (C) instruct the Trustee to draw on such credit facility in the amount of the Series Debt Service Reserve Requirement (i) 12 months prior to expiration of the credit facility in the case of receipt of an expiration notice, (ii) prior to the termination date in the case of receipt of a termination notice, or (iii) immediately in the case of such reduction in credit rating and deposit the amount drawn to the Series Debt Service Reserve Account.

If a disbursement is made pursuant to any credit facility, the Authority shall either (a) reinstate the maximum limits of such credit facility, or (b) deposit to the credit of the applicable Series Debt Service Reserve Account moneys in the amount of the disbursement made under such credit facility from available Net Revenues. To the extent such moneys are still insufficient, then the Authority shall transfer to the Trustee from any legally available moneys the amount of such deficiency as soon as practicable and in any event within 24 months by depositing one-twenty-fourth of the required amount each month.

Amounts, if any, released from any Series Debt Service Reserve Account, upon deposit to the credit of such Account of a credit facility, upon designation by an Authorized Representative of the Authority and accompanied by an Opinion of Bond Counsel that such use will not adversely affect the exclusion from gross income of interest on the respective Series of Bonds, shall be transferred (a) to the subaccount of the Principal Account with respect to such Series of Bonds and used to pay principal of or to redeem such Bonds, or (b) to the Authority to be used to pay all or any portion of the Costs designated by the Authority and approved by Bond Counsel.

On or within five days after each Reserve Determination Date, the Trustee shall determine if the balance on deposit in each Series Debt Service Reserve Account was, as of the Reserve Determination Date, at least equal to the applicable Series Debt Service Reserve Requirement. In making such determination, any obligations in the Series Debt Service Reserve Account shall be valued in accordance with the Indenture. In the event the amount on deposit in a Series Debt Service Reserve Account exceeds the applicable Series Debt Service Reserve Requirement, the Trustee shall (a) transfer such excess to the Bond Fund to be deposited in the related Series subaccount in the Interest Account and the related Series subaccount in the Principal Account to the extent amounts in such subaccounts are less than the amounts required to be paid on the next interest payment date and principal payment date, respectively, (b) thereafter transfer such excess to the Bond Fund to be deposited, as directed by an Authorized Representative of the Authority, in the Interest Account or the Principal Account to the extent amounts in such accounts are less than the amounts required to be paid on the next interest payment date and principal payment date, respectively, and (c) transfer such excess to the Authority to be used to pay all or any portion of Costs designated by the Authority and approved by Bond Counsel; provided, however, that if an Authorized Representative of the Authority calls for a Reserve Determination Date in connection with the refunding and/or defeasance of a Series of Bonds, then the Trustee is authorized to take such refunding and/or defeasance into account in valuing the Series Debt Service Reserve Account securing such Series of Bonds and is further authorized to apply the amount of any surplus arising from such valuation to reduce the amount of the refunding bonds and/or to provide for the defeasance of the Series of Bonds in such manner as the Authorized Representative of the Authority may direct.

Payments in Aid of Construction (Section 607)

The Authority shall use any payments made to the Authority by any persons as payment for constructing water, wastewater or stormwater facilities at the request of such persons, whether such payments are made prior to or after such construction, only to pay the cost of such construction. After completion of such construction, the Authority may use any moneys remaining after such construction is completed to pay all or any portion of Costs designated by the Authority and approved by Bond Counsel.

Other Funds and Accounts (Section 608)

The Authority may establish in each Supplemental Indenture such other funds and Accounts within funds as the Authority may determine to be desirable.

Pledge of Net Revenues and Certain Funds and Accounts (Section 609; TSI Section 601)

Net Revenues are pledged equally and ratably to the payment of principal of and interest on all Senior Debt, subject only to the right of the Authority to make application thereof to other purposes as provided in the Indenture. All funds created under the Indenture other than the Operating Fund shall be trust funds and are pledged (except as provided in the next sentence and as described in the next paragraph hereof) equally and ratably to the payment of the principal of and interest on all Senior Debt, subject only to the right of the Authority to make application thereof, or to direct the Trustee to make application thereof, to other purposes as provided in the Indenture. The lien and trust created under the Indenture are for the benefit of the Holders of Senior Debt and for their additional security until all the Senior Debt has been paid; provided, however, that the moneys in each Series Debt Service Reserve Account and each Series Construction Account or subaccount shall only secure the applicable Series of Bonds that provided such moneys, and moneys in any account of the Bond Fund relating to a particular Senior Debt shall only secure such Senior Debt. Notwithstanding the foregoing and anything else in the Indenture to the contrary, pursuant to the terms of the Water Sales Agreement, to the extent that the United States of America, acting through the Secretary of the Army, requires that the Authority establish a special fund consisting of separately identifiable fees, charges, rents and rates (the "Special Revenues") assessed by the Authority on its retail customers after the effective date of the Indenture in order to pay for the principal and interest due on the Treasury Loans, the Department of the Treasury shall have a

security interest in such Special Revenues only, and the Treasury Loans shall no longer be secured by the remaining Net Revenues, nor be considered Indebtedness for the purposes of the Indenture. The Treasury Loan holder shall have an interest senior to the interest of holders of Indebtedness in such Special Revenues. All further terms and conditions of such Special Fund shall be set forth in a Supplemental Indenture related thereto.

The Series 2022B/C/D Bonds are secured as Subordinate Debt under the Indenture and, as such, are secured by a pledge of (i) Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures Subordinate Debt, including, without limitation, any other Subordinate Debt that the Authority may issue in the future, without preference, priority or distinction of any Series 2022B/C/D Bond over any other Series 2022B/C/D Bond or of any Subordinate Debt over any other Subordinate Debt, as provided in the Indenture; and (ii) the moneys and Permitted Investments in the Subordinate Bond Fund on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, any other Subordinate Debt that the Authority may issue in the future, without preference, priority or distinction of any Series 2022B/C/D Bond over any other Series 2022B/C/D Bond or of any Subordinate Debt over any other Subordinate Debt, as provided in the Indenture. (TSI Section 601).

Covenant of the District of Columbia (TSI Section 601)

Under to the WASA Act, the District pledges to the Authority and any holders of its bonds that, except as provided in the WASA 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 the 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.

Payment of Indebtedness; Limited Obligations (Section 801)

The Authority shall promptly pay or cause to be paid when due the principal of (whether at maturity, by acceleration, call for redemption or otherwise), premium, if any, and interest on the Indebtedness at the places, on the dates and in the manner provided in the Indenture and in the Indebtedness according to the true intent and meaning thereof; provided, however, that such obligations are not general obligations of the Authority, but are limited obligations payable solely from Net Revenues, except to the extent payable from the proceeds of Indebtedness, the income, if any, derived from the investment thereof, certain reserves, proceeds of credit enhancement, income from investments pursuant to the Indenture or proceeds of Insurance, which Net Revenues and other moneys are specifically pledged to such purposes in the manner and to the extent provided in the Indenture. The Series 2022B/C/D Bonds are special and limited obligations of the District. The Series 2022B/C/D Bonds shall be without recourse to the District. The Series 2022B/C/D Bonds shall not be general obligations of the District, shall not be a pledge of or involve the faith and credit or the taxing power of the District, and shall not constitute lending of the public credit for private undertakings.

Limitations on Indebtedness (Section 802)

The Authority shall not issue any bonds, notes or other obligations that shall be secured by a pledge of Net Revenues (a) senior to the pledge of Net Revenues securing the Senior Debt, (b) except in compliance with the Indenture, on a parity with the pledge of Net Revenues securing the Senior Debt, or (c) except in compliance with the section captioned "Subordinate Debt (Section 305)", subordinate to the pledge of Net Revenues securing the Senior Debt. The Authority shall not issue Bonds, Other System Indebtedness or Subordinate Debt unless the Authority complies with the Indenture, including those provisions described in "Conditions for Issuing Bonds (Section 303)," "System Indebtedness (Section 304)" and "Subordinate Debt (Section 305)," as applicable.

Covenants and Representations of the Authority (Section 803)

The Authority shall faithfully observe and perform all covenants, conditions and agreements on its part contained in the Indenture, in every issue of Indebtedness issued thereunder and in all proceedings of the Authority pertaining thereto. The Authority represents that it is duly authorized under the WASA Act to issue the Indebtedness, to execute the Indenture, and to pledge Net Revenues in the manner and to the extent set forth in the Indenture. The

Authority covenants that it will take all action necessary for issuance of the Indebtedness and the execution of the Indenture, and that upon issuance the Indebtedness will be valid and enforceable obligations of the Authority according to the import thereof.

Covenants with Credit Banks, Insurers, etc. (Section 804)

The Authority may make such covenants and agreements in a Supplemental Indenture as it may determine to be appropriate with any Insurer, credit bank or other financial institution that agrees to insure or to provide credit or liquidity support to enhance the security or the value of any Indebtedness. Such covenants and agreements may be set forth in the applicable Supplemental Indenture and shall be binding on the Authority and all the holders of Indebtedness the same as if such covenants were set forth in full in the Indenture.

Operation and Maintenance (Section 805)

The Authority shall establish and enforce reasonable rules and regulations governing the use of and the services furnished by the System, shall maintain and operate the System in an efficient and economical manner, shall maintain the same in good repair and sound operating condition and shall make all necessary repairs, replacements and renewals. All compensation, salaries, fees and wages paid by the Authority in connection with the operation and maintenance of the System shall be reasonable. The Authority shall observe and perform all of the terms and conditions contained in the WASA Act and the Water Sales Agreement and shall comply with all valid acts, rules, regulations, orders and directions of any legislative, executive, administrative or judicial body applicable to the System or the Authority.

Free Service, Competing Service, Billing and Enforcement of Charges (Section 806)

The Authority shall not permit connections to or use of the System or provide any services of the System without making a charge therefor in accordance with the Authority's schedule of rates, fees and charges for the System other than those connections, use or services already in existence; provided, however, the Authority may accept proffers and other forms of payment in lieu of cash payments that the Authority deems are in its best interest to accept, provided that such proffers do not cause a violation of the Rate Covenant. The Authority shall not provide, grant any franchise to provide, or give consent for anyone else to provide any services which would compete with the System unless the Authority determines that such franchise or provision of services would provide services that the Authority has determined are not in its best interest to provide and would not materially impair the interests of the holders of Indebtedness.

The Authority shall bill customers for the services of the System no less frequently than quarterly. If any rates, fees or other charges for the use of or for the services furnished by the System shall not be paid within 60 days after the same shall become due and payable, or within such shorter time as may be determined by the Authority, the Authority shall at the expiration of such period, to the extent permitted by applicable laws and regulations, disconnect the premises from the System or otherwise suspend service to such premises until such delinquent rates, fees or other charges and any interest, penalties or charges for reconnection of service to such delinquent customer shall have been paid in accordance with the policies of the Authority, or a payment plan with respect to such amounts has become effective. The Authority shall take all such action as may be necessary to perfect liens upon real estate for the amount of any unpaid rates, fees or other charges described in Section 806 of the Indenture or any unpaid connection charges or other charges so that such liens will be binding upon subsequent bona fide purchasers for valuable consideration without actual notice thereof.

Sale or Encumbrance of System (Section 807)

Neither the System nor any integral part thereof shall be leased, sold, mortgaged or otherwise disposed of without an Independent Consulting Engineer's certification that such disposition will not have a negative impact on the overall viability of the System unless the proceeds of such disposition, together with any other legally available moneys, are sufficient to pay the principal of, premium, if any, and interest on all Indebtedness then Outstanding and the proceeds are used for such purpose; provided, that the Authority may from time to time sell, exchange or otherwise dispose of any equipment, motor vehicles, machinery, fixtures, apparatus, tools, instruments or other movable property

if it determines that such articles are no longer needed or are no longer useful in connection with the System, and the proceeds thereof may be used for any lawful purpose determined by the Authority. The Authority shall not create or suffer to be created any lien or charge upon the System or any part thereof or any lien or charge upon Net Revenues and other moneys pledged herein ranking equally with, prior to, or subordinate to the lien and charge of the Indebtedness, except as provided in the Indenture. Notwithstanding anything in the Indenture to the contrary, the Authority may acquire items of personal property constituting part of the System under lease purchase agreements or similar financing arrangements entered into in the ordinary course of business which may be subject to purchase money security interests or other liens in an aggregate amount not to exceed five percent (5%) of the net amount of plant, property and equipment.

Notwithstanding the provisions of the preceding paragraph, the Authority may sell, transfer or otherwise dispose of all or substantially all of the System for purposes of consolidating the System with or merging the System into one or more regional water, wastewater or stormwater systems of which the Authority is a participating member jurisdiction if: (1) the successor entity assumes in writing all of the Indebtedness then Outstanding, (2) the successor entity covenants in writing to comply with the Rate Covenant, (3) the Authority obtains an opinion of Bond Counsel, subject to the customary exceptions and qualifications, substantially to the effect that the assumption by the successor entity of all of the Indebtedness then Outstanding shall not have an adverse effect on the tax-exempt status of the interest on any such Indebtedness the interest on which was excludable from gross income for purposes of Federal income taxation when issued, and (4) the ratings on the Indebtedness then Outstanding will not adversely be affected by such assumption.

Notwithstanding the provisions of the preceding paragraph, the Authority may lease or sell the Blue Plains Wastewater Treatment Plant if: (1) the lessor [sic] or purchaser entity assumes in writing all of the Indebtedness then Outstanding relating to the plant, (2) the successor entity covenants in writing to comply with the Rate Covenant, as applicable, (3) the Authority obtains an opinion of Bond Counsel, subject to the customary exceptions and qualifications, substantially to the effect that the assumption by the lessor [sic] or purchaser entity of all of the Indebtedness then Outstanding shall not have an adverse effect on the tax-exempt status of the interest on any such Indebtedness the interest on which was excludable from gross income for purposes of Federal income taxation when issued, and (4) the ratings on such Indebtedness then Outstanding will not adversely be affected by such assumption.

Insurance (Section 808)

The Authority shall continuously maintain insurance with recognized responsible commercial insurance companies against such risks and in such amounts as are customary for public bodies owning and operating similar systems, including (a) insurance against loss or damage to the System, (b) public liability insurance against liability for bodily injury, including death resulting therefrom, and for damage to property, including loss of use thereof, arising out of the ownership or operation of the System, and (c) workers' compensation insurance with respect to the System. In lieu of insurance written by commercial insurance companies, the Authority may maintain a program of self-insurance or participate in group risk financing programs, including sponsored insurance programs, risk pools, risk retention groups, purchasing groups and captive insurance companies, and in state or Federal insurance programs; provided, however, that the Authority shall obtain and maintain on file a tri-annual favorable written opinion of a Qualified Independent Consultant that such alternative is reasonably acceptable with respect to the coverages under all the circumstances.

Damage, Destruction, Condemnation and Loss of Title (Section 809)

If all or any part of the System is destroyed or damaged by fire or other casualty, condemned or lost by failure of title, the Authority shall restore promptly the property destroyed or damaged to substantially the same condition as before such destruction, damage, condemnation or loss of title with such alterations and additions as the Authority may determine and which will not impair the capacity or character of the System for the purpose for which it is then being used or is intended to be used. The Authority shall apply so much as may be necessary of such Net Proceeds received on account of any such destruction, damage, condemnation or loss of title to payment of the cost of such restoration, either on completion or as the work progresses. If such Net Proceeds are not sufficient to pay in full the cost of such restoration, the Authority shall pay so much of the cost as may be in excess of such Net Proceeds from any legally available moneys. Any balance of such Net Proceeds remaining after payment of the cost of such restoration shall be deposited in the Bond Fund.

Records and Accounts; Inspections and Reports (Section 810)

The Authority shall keep proper books of records and accounts, separate from any of its other records and accounts, showing complete and correct entries of all transactions relating to the System, and the Trustee shall have the right at all reasonable times to inspect the System and all records, accounts and data relating thereto. The Authority shall also cause a certified audit of its records and accounts to be made in accordance with generally accepted accounting principles by an independent certified public accountant at the end of each Fiscal Year which shall reflect in reasonable detail the financial condition and results of operation of the System and whether the Authority has complied with the Rate Covenant and to deliver such report to the Trustee. The Authority shall cause an Independent Consulting Engineer at least once every five years to inspect the System and make a written report thereof which shall include such Independent Engineer's findings and recommendations as to the maintenance of the System and the construction of additions, extensions and improvements to the System and capital replacements thereof. Such report shall be completed in sufficient time so that the Authority may take into account any recommendations thereof in preparing its next Annual Budget.

Capital Budget (Section 811)

The Authority shall annually adopt a multiyear financial plan for capital expenses encompassing at least the forthcoming five fiscal years.

Service Contracts (Section 812)

The Authority may enter into Service Contracts for the benefit of the System, provided that the Authority specifies in writing the items payable as the Debt Service Component, Operating Component or Remaining Component of the Cost of Contracted Services and provided, further that the Authority shall not enter into any Service Contracts that would create Debt Service Components that constitute Other System Indebtedness unless the Authority satisfies the test set forth in the section entitled "Conditions for Issuing Bonds (Section 303)" for Bonds issued to pay Costs, except in the case of the initial Series of Bonds. The Authority shall faithfully fulfill all lawful requirements of all Service Contracts and shall require all other parties thereto to fulfill their lawful obligations thereunder. The Authority shall determine in writing on or before the effective date of any Service Contract the amounts and due dates of any Debt Service Component and the interest and principal portions of such components.

Events of Default – General (Section 901)

Each of the following events shall be an Event of Default:

(a) Default in the due and punctual payment of the principal of, premium, if any, on any Bond (whether at maturity, call for redemption or otherwise);

(b) Default in the due and punctual payment of the interest on any Bond;

(c) Failure by the Authority to observe the covenant set forth in Section 604(g)(3)(a) of the section entitled "Disposition of Revenues";

(d) Subject to the remedial provisions of the Rate Covenant, failure of the Authority to observe and perform any of its other covenants, conditions or agreements under the Indenture or in the Bonds for a period of 60 days after written notice either from the Trustee or Holders of not less than 25% in aggregate principal amount of Bonds then Outstanding (unless the Trustee agrees in writing to an extension of such time prior to its expiration), specifying such failure and requesting that it be remedied, or in the case of any such default that cannot with due diligence be cured within such 60 day period, failure of the Authority to proceed promptly to cure the same and thereafter prosecute the curing of such default with due diligence within 60 days thereafter; provided, however, any such cure period shall not exceed an aggregate of 120 days without the prior written consent of Financial Security Assurance, Inc., as long as any of the Authority's \$266,120,000 Public Utility Revenue Bonds, Series 1998 are Outstanding;

(e) The Authority shall fail to make any required payment with respect to any Other System Indebtedness, and any period of grace with respect thereto shall have expired, or an event of default as defined in any mortgage, indenture, or instrument under which there may be issued, or by which there may be secured or evidenced any Other System Indebtedness, shall occur, which event of default shall not have been waived by the holder of such mortgage, indenture or instrument provided, however, that such default shall not constitute an Event of Default within the meaning of Section 901 of the Indenture if within 30 days, or within the time allowed for service of a responsive pleading if any proceeding to enforce payment of the Other System Indebtedness is commenced, the Authority in good faith shall commence proceedings to contest the obligation to pay or the existence of such Other System Indebtedness;

(f) (1) commencement by the Authority of a voluntary case under the Federal bankruptcy laws, as now or hereafter constituted, or any other applicable Federal or state bankruptcy, insolvency or similar law, (2) consent by the Authority to the appointment of a receiver, liquidator, assignee, trustee, custodian, sequestrator or other similar official for the Authority, the System or any substantial part of the Authority's property, or to the taking possession by any such official of the System or any substantial part of the Authority's property, (3) making by the Authority of any assignment for the benefit of creditors, or (4) taking corporate action by the Authority in furtherance of any of the foregoing

(g) The entry of any (1) decree or order for relief by a court having jurisdiction over the Authority or its property in an involuntary case under the Federal bankruptcy laws, as now or hereafter constituted, or any other applicable Federal or state bankruptcy, insolvency or other law, (2) appointment of a receiver, liquidator, assignee, trustee, custodian, sequestrator or similar official for the Authority, the System or any substantial part of the Authority's property, or (3) order for the termination or liquidation of the Authority or its affairs; or

(h) Failure of the Authority within 60 days after the commencement of any proceedings against it under the Federal bankruptcy laws, or any other applicable Federal or state bankruptcy, insolvency or similar law, to have such proceedings dismissed or stayed.

Notice to Holders of Senior Debt of Certain Default (Section 902)

If the Trustee is required to draw moneys from the Debt Service Reserve Fund to pay principal or interest on the Bonds and the Authority fails to begin replenishing the Debt Service Reserve Fund within 60 days in accordance with the replenishment requirements of the Indenture or fails to make any deposit required by the Indenture, then the Trustee shall send a notice to the Holders of Senior Debt that have related Debt Service Reserve Accounts, notifying them of the Authority's failure to replenish such draws.

Acceleration of Bonds (Section 903)

Upon the occurrence and continuation of an Event of Default, the Trustee may (and if requested by the holders of not less than 25% in aggregate principal amount of Bonds then Outstanding shall) by written notice to the Authority, declare the entire unpaid principal of the Bonds due and payable and, thereupon, the entire unpaid principal of the Bonds shall forthwith become due and payable. Upon any such declaration the Authority shall forthwith pay to the holders of the Bonds the entire unpaid principal of, premium, if any, and accrued interest on the Bonds, but only from Net Revenues and other moneys specifically pledged in the Indenture for payments of Bondholders. If at any time after such a declaration and before the entry of a final judgment or decree in any suit, action or proceeding instituted on account of such default or before the completion of the enforcement of any other remedy under the Indenture, the principal of all Bonds that have matured or been called for redemption pursuant to any sinking fund provision and all arrears of interest have been paid and any other Events of Default which may have occurred have been remedied, then the Trustee may, by written notice to the Authority, rescind or annul such declaration and its consequences. No such rescission or annulment shall extend to or affect any subsequent default or impair any right consequent thereon. Subordinate Debt may not be accelerated if any Senior Debt is Outstanding.

Other Remedies and Rights of Bondholders (Section 904)

Upon the occurrence and continuation of an Event of Default, the Trustee may (and if requested by the holders of not less than 25% in aggregate principal amount of Bonds Outstanding and if indemnified in accordance with

prevailing industry standards shall) proceed to protect and enforce their rights by mandamus or other suit, action or proceeding at law or in equity, including an action for specific performance of any covenant or agreement contained in the Indenture. No remedy conferred by the Indenture upon or reserved to the Trustee and Bondholders is intended to be exclusive of any other remedy, but each such remedy shall be cumulative and shall be in addition to any other remedy given to the Trustee and holders of Bonds under the Indenture or now or hereafter existing at law, in equity or by statute. No delay or omission to exercise any right or power accruing upon any default or Event of Default shall impair any such right or power, or shall be construed to be a waiver of any such default or Event of Default or acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient. No waiver of any default or Event of Default under the Indenture by the Trustee or Bondholders shall extend to or affect any subsequent default or Event of Default or shall impair any rights or remedies consequent thereon.

Right of Bondholder to Direct Proceedings (Section 905)

Anything in the Indenture to the contrary notwithstanding, the holders of a majority in aggregate principal amount of Bonds then Outstanding shall have the right, at any time, by an instrument or instruments in writing executed and delivered to the Trustee, 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 thereunder; provided, however, that such direction shall not be otherwise than in accordance with the provisions of law and of the Indenture.

Application of Moneys – General (Section 906)

All moneys received by the Trustee pursuant to any right given or action taken under the Indenture, after payment of the cost and expenses of the proceedings resulting in the collection of such moneys, the expenses, liabilities and advances incurred or made by the Trustee and its fees and the expenses of the Authority in carrying out the Indenture, shall be deposited in the Bond Fund and applied for no other purpose than as follows, unless the principal of all of the Bonds shall have become due or shall have been declared due and payable:

First – To the payment to the persons entitled thereto of all installments of interest then due on the Senior Debt, in the order of the maturity of the installments of such interest and; if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference, except as to any difference in the respective rates of interest specified in the Senior Debt; and

Second – To the payment to the persons entitled thereto of the unpaid principal of and premium, if any, on any of the Senior Debt which shall have become due (other than Senior Debt called for redemption for the payment of which moneys are held pursuant to the provisions of the Indenture), to pay in full Senior Debt due on any particular date and then to the payment of such principal and premium, if any, ratably, according to the amount of such principal due on such date, to the persons entitled thereto, without any discrimination or preference.

If the principal of all the Bonds shall have become due or shall have been declared due and payable, all such moneys shall be applied to the payment of the principal and interest then due and unpaid on the Senior Debt, including, to the extent permitted by law, interest on overdue installments of interest, without preference or priority of principal over interest or of interest over principal, or of any installment of interest over any other installment of interest, or of any Senior Debt over any other Senior Debt, ratably, according to the amounts due respectively for principal and interest, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Senior Debt.

If the principal of all the Bonds shall have been declared due and payable and if such declaration shall thereafter have been rescinded and annulled under the provisions of the Indenture, then, subject to the provisions Section 906 of the Indenture in the event that the principal of all the Senior Debt shall later become due or be declared due and payable, the moneys shall be applied in accordance with the provisions of Section 906 of the Indenture. Whenever moneys are to be applied pursuant to the provisions of Section 906, such moneys shall be applied at such times and from time to time as the Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future.

Whenever the Trustee shall apply such moneys, it shall fix the date (which shall be an Interest Payment Date unless it shall deem another date more suitable) on which such application is to be made and, on such date, interest shall cease to accrue on the amounts of principal to be paid. The Trustee shall give such notice as it may deem appropriate of the deposit with it of any such moneys and of the fixing of any such date. Whenever there are moneys remaining after application to the Bond Fund for the payment of Senior Debt, the Trustee shall apply such remaining moneys, allocated in a similar manner as provided above, to the payment of Subordinate Debt. Whenever the principal of and premium, if any, and interest on all Indebtedness have been paid under the provisions of Section 906 of the Indenture, all payments required by the terms of any Supplemental Indenture have been paid and all expenses and charges of the Trustee have been paid, any balance remaining in the several funds created by the Indenture shall be paid to the Authority as provided in the Indenture.

Remedies Vested in Trustee (Section 907)

All rights of action (including the right to file proof of claims) under the Indenture or under any of the Bonds may be enforced by the Trustee without the possession of any of the Bonds or the production thereof in any trial or other proceeding relating thereto, and any such suit or proceeding instituted by the Trustee may be brought in its name as Trustee, without the necessity of joining as plaintiffs or defendants any Bondholders, and any recovery of judgment shall be for the equal benefit of the Bondholders.

Limitation on Suits (Section 908)

Except to enforce the rights described under “Other Remedies; Rights of Bondholders (Section 904)” and “Right of Bondholders to Direct Proceedings (Section 905)”, no Bondholder shall have any right to institute any action, suit or proceeding at law or in equity for the enforcement of the Indenture or for the execution of any trust thereof or any other remedy under the Indenture, unless (a) a default has occurred and is continuing of which the Trustee has been notified as provided in the Indenture, or of which under the Indenture the Trustee is deemed to have notice, (b) such default has become an Event of Default and the holders of 25% in aggregate principal amount of Bonds then Outstanding have made written request to the Trustee and offered it reasonable opportunity either to proceed to exercise the powers hereinbefore granted or to institute such action, suit or proceeding in its own name, (c) such requesting Bondholders have offered to the Trustee indemnity as provided in the indenture, (d) the Trustee has thereafter failed or refused to exercise the powers granted under the Indenture, or to institute such action, suit or proceeding in its, own name, (e) no direction inconsistent with such written request has been given to the Trustee by the holders of a majority in aggregate principal amount of Bonds then Outstanding, and (f) notice of such action, suit or proceeding is given to the Trustee, it being understood and intended that no one or more holders of the Bonds shall have any right in any manner whatsoever to affect, disturb or prejudice the Indenture by its or their action, or to enforce any rights under the Indenture except in the manner therein provided, and that all proceedings at law or in equity shall be instituted and maintained in the manner herein provided and for the equal benefit of the holders of all Bonds then Outstanding. The notification, request and offer of indemnity set forth in the Indenture, at the option of the Trustee, shall be conditions precedent to the execution of the powers and trusts of the Indenture and to any action or cause of action for the enforcement of the Indenture or for any other remedy under the Indenture.

Waivers of Events of Default (Section 910)

The Trustee may in its discretion waive any Event of Default under the Indenture or any action taken pursuant to any Event of Default and rescind any acceleration of maturity of principal of and interest on the Bonds, and shall do so at the written request of the holders of (a) a majority in aggregate principal amount of Bonds then Outstanding in respect of which default in the payment of principal and/or premium, if any, and/or interest exists, or (b) a majority in aggregate principal amount of Bonds then Outstanding in the case of any other default, provided, however, that (1) there shall not be waived without the written consent of the holders of all Bonds then Outstanding (A) any Event of Default in the payment of the principal of any Outstanding Bonds (whether at maturity or by sinking fund redemption), or (B) any default in the payment when due of the interest on any such Bonds unless, prior to such waiver or rescission, (i) there shall have been paid or provided for all arrears of interest with interest, to the extent permitted by law, at the rate borne by the Bonds on overdue installments of interest, all arrears of principal of, premium, if any, and all expenses of the Trustee in connection with such default, and (ii) in case of any such waiver or rescission or in the case of any discontinuance, abandonment or adverse determination of any proceeding taken by the Trustee on account of any such default, the Authority, the Trustee, and the holders of Bonds shall be restored to their former

positions and rights under the Indenture respectively; (2) no acceleration of maturity described under “Acceleration (Section 903)” made at the request of the holders of 25% in aggregate principal amount of Bonds then Outstanding shall be rescinded unless requested by the holders of at least 25% in aggregate principal amount of Bonds then Outstanding; and (3) any such waiver and/or rescission shall only be effective with respect to the Bonds if the holders of Other System Indebtedness shall have waived any event of default related to such Other System Indebtedness or any action taken pursuant to such event of default and/or rescinded any declaration of maturity of principal of and interest on the Other System indebtedness. No such waiver or rescission relating to the Bonds shall extend to any subsequent or other default, or impair any right consequent thereon.

Unconditional Right to Receive Principal, Premium and Interest (Section 911)

Nothing in the Indenture, however, shall affect or impair the right of the Trustee or any Bondholder to enforce, by action at law, payment of the principal of, premium, if any, or interest on any Bond at and after the maturity thereof, or on the date fixed for redemption or upon the same being declared due prior to maturity as herein provided, or the obligation of the Authority to pay the principal of, premium, if any, and interest on each of the Bonds issued under the Indenture to the respective holders thereof at the time and place, from the source and in the manner expressed in the Indenture and in the Bonds.

Supplemental Indentures Not Requiring Consent of Holders of Bonds (Section 1001)

The Authority and the Trustee may, without the consent of, or notice to, any of the Bondholders, enter into Supplemental Indentures as shall not be inconsistent with the intent of the terms and provisions of the Indenture, to (a) cure any ambiguity, formal defect or omission in the Indenture; (b) grant to or confer upon the Bondholders any additional rights, remedies, powers or authority that may lawfully be granted to or conferred on the Bondholders; (c) add to the covenants and agreements of the Authority in the Indenture other covenants and agreements to be observed by the Authority; (d) modify, amend or supplement the Indenture in such manner as required to permit the Authority to comply with the provisions of the Code relating to the rebate to the United States of America of earnings derived from the investment of the proceeds of Bonds, provided that such modification, amendment or supplement does not materially adversely affect the holders of all Outstanding Bonds; (e) modify, amend or supplement the Indenture in such manner as may be required by a Rating Agency to maintain or enhance its rating on the Senior Debt, provided that such modification, amendment or supplement does not materially adversely affect the holders of all Outstanding Bonds; (f) modify, amend or supplement the Indenture to implement any covenants or agreements contemplated by the Indenture; (g) authorize the issuance of and to secure one or more issues of Indebtedness pursuant to the Indenture; (h) amend any agreement with a securities depository relating to a book-entry only system to be maintained with respect to any Bonds; or (i) modify, amend or supplement the Indenture in any manner that the Trustee concludes is not materially adverse to the holders of all Outstanding Bonds.

Supplemental Indentures Requiring Consent of Bondholders (Section 1002)

Exclusive of Supplemental Indentures authorized by Section 1001 of the Indenture and subject to the terms and provisions contained in Section 1002 of the Indenture, the holders of not less than a majority in aggregate principal amount of Outstanding Bonds shall have the right, from time to time, notwithstanding anything in the Indenture to the contrary, to consent to the execution by the Authority and the Trustee of such other agreements or agreements supplemental to the Indenture as shall be deemed necessary or desirable by the Authority for the purpose of modifying, altering, amending, adding to or rescinding, in particular, any of the terms or provisions contained in the Indenture and any Supplemental Indentures; provided, however, that nothing in the Indenture shall permit, or be construed as permitting, (a) an extension of the maturity of the principal of or the interest on any Bonds, (b) a privilege or priority of any Senior Debt over any other Senior Debt, (c) a reduction in the aggregate principal amount of Bonds required for consent to any Supplemental Indentures, (d) a reduction in the principal amount of or premium, if any, on any Bonds or the rate of interest thereon, or (e) an extension of time or a reduction in amount of any payment required by any sinking fund that may be applicable to any Bonds, without the consent of the holders of all of the Outstanding Bonds; provided, however that there shall be no modification of the Net Revenue pledge which secures the Other System Indebtedness nor of the Net Revenue pledge which secures the Subordinate Debt, if such respective modification would adversely affect the interests of the holders of such debt.

If at any time the Authority shall request the Trustee to enter into any Supplemental Indenture, the Trustee shall cause notice of the proposed execution of such Supplemental Indenture to be sent by registered or certified mail to the registered owner of each Bond at his address as it appears on the registration books. Such notice shall briefly set forth the nature of the proposed Supplemental Indenture and shall state that a copy thereof is on file at the corporate trust office of the Trustee for inspection by all Bondholders. If, within 90 days or such longer period as shall be prescribed by the Authority following the giving of such notice, the holders of not less than a majority in aggregate principal amount of Outstanding Bonds, or in the case of (a) through (e) above, the holders of all Outstanding Bonds, shall have consented to and approved the execution thereof as herein provided, no holder of any Bond shall have any right to object to any of the terms and provisions contained therein, or the operation hereof, or in any manner to question the propriety thereof, or to enjoin or restrain the Trustee or the Authority from executing such Supplemental Indenture or from taking any action pursuant to the provisions thereof. Upon the execution of any such Supplemental Indenture as permitted and provided in the Indenture, the Indenture shall be and be deemed to be modified and amended in accordance therewith. Bonds owned or held by or for the account of the Authority shall not be deemed Outstanding for the purpose of consent or any calculation of Outstanding Bonds provided for in the Indenture. At the time of any such calculation, the Authority shall furnish the Trustee a certificate of an Authorized Representative of the Authority upon which the Trustee may rely, describing all Bonds so to be excluded.

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 Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) (the “Series 2022B Bonds”), its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1 Bonds (the “Series 2022C-1 Bonds”), its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 Bonds (the “Series 2022C-2 Bonds” and together with the Series 2022C-1 Bonds, the “Series 2022C Bonds”) and its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable) (the “Series 2022D Bonds” and, together with the Series 2022B Bonds and the Series 2022C Bonds, the “Series 2022B/C/D Bonds” or the “Bonds”). The Series 2022B/C/D 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 2022B Bonds and the Series 2022C Bonds (the “Series 2022B/C Bonds”) (the “Indenture”), including by the Thirtieth Supplemental Indenture of Trust, to be dated the date of issuance and delivery of the Series 2022B/C Bonds (the “Thirtieth Supplemental Indenture”) and by the Thirty-First Supplemental Indenture of Trust, to be dated the date of issuance and delivery of the Series 2022D Bonds (the “Thirty-First Supplemental Indenture”) each by and between the Authority and Computershare Trust Company, 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 2022B/C/D 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 underwriters of the Series 2022B/C/D Bonds required to comply with the Rule in connection with offering of the Series 2022B/C/D 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, 2022 (which is due not later than June 1, 2023), 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 2022B/C/D 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 [DATE] relating to the Series 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D Bonds or other material events affecting the tax status of the Series 2022B/C/D 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 2022B/C/D 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;
7. Appointment of a successor or additional trustee or the change of name of a trustee;
8. Incurrence of a financial obligation of the Issuer or obligated person, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the Issuer or obligated person, any of which affect security holders, if material; or
9. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of the financial obligation of the Issuer or obligated person, any of which reflect financial difficulties.

For purposes of items 8 and 9 above, “financial obligation” means: (i) a debt obligation; (ii) a derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (iii) a guarantee of (i) or (ii).

(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 2022B/C/D Bonds. If such termination occurs prior to the final maturity of the Series 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D Bonds, and shall create no rights in any other person or entity.

Date: [], 2022

DISTRICT OF COLUMBIA WATER AND SEWER
AUTHORITY

By: _____
Matthew T. Brown
Chief Financial Officer and Executive Vice President,
Finance and Procurement

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APPENDIX E

DTC BOOK-ENTRY SYSTEM AND GLOBAL CLEARANCE PROCEDURES

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The information set forth in this Appendix E is subject to any change in or reinterpretation of the rules, regulations and procedures of DTC, Euroclear or Clearstream Banking (DTC, Euroclear and Clearstream Banking together, the “Clearing Systems”) currently in effect. The information set forth in this Appendix E concerning the Clearing Systems has been obtained from sources that the Authority believes to be reliable, but none of the Authority, the Trustee or the Underwriters take any responsibility for the accuracy, completeness or adequacy of the information in this section. Investors wishing to use the facilities of any of the Clearing Systems are advised to confirm the continued applicability of the rules, regulations and procedures of the relevant Clearing System. The Authority will not have any responsibility or liability for any aspect of the records relating to, or payments made on account of, beneficial ownership interests in the Series 2022B/C/D Bonds held through the facilities of any Clearing System or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

NEITHER THE AUTHORITY NOR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATIONS TO DIRECT PARTICIPANTS OR THE PERSONS FOR WHOM THEY ACT AS NOMINEES WITH RESPECT TO THE PAYMENTS TO OR THE PROVIDING OF NOTICE FOR DIRECT PARTICIPANTS, INDIRECT PARTICIPANTS OR BENEFICIAL OWNERS.

SO LONG AS CEDE & CO. IS THE REGISTERED OWNER OF THE SERIES 2022B/C/D BONDS, AS NOMINEE OF DTC, REFERENCES HEREIN TO THE BONDHOLDERS OR REGISTERED OWNERS OF THE SERIES 2022B/C/D BONDS SHALL MEAN CEDE & CO. AND SHALL NOT MEAN THE BENEFICIAL OWNERS OF THE SERIES 2022B/C/D BONDS.

DTC BOOK-ENTRY ONLY SYSTEM

The description that follows of the procedures and record keeping with respect to beneficial ownership interests in the Series 2022B/C/D Bonds, payments of principal, premium, if any, and interest on the Series 2022B/C/D Bonds to DTC, its nominee, Participants, or Beneficial Owners, confirmation and transfer of beneficial ownership interests in the Series 2022B/C/D 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 2022B/C/D Bonds. The Series 2022B/C/D 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 2022B/C/D Bond will be issued for the Series 2022B/C/D 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 __. 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 2022B/C/D Bonds under the DTC system must be made by or through Direct Participants, who will receive a credit for such Series 2022B/C/D Bonds on DTC’s records. The ownership interest of each actual purchaser of each Series 2022B/C/D 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 2022B/C/D 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

2022B/C/D Bonds, except in the event that use of the book-entry system for the Series 2022B/C/D Bonds is discontinued.

To facilitate subsequent transfers, all Series 2022B/C/D 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 2022B/C/D 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 2022B/C/D Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the Series 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D Bonds Bond certificates will be printed and delivered.

So long as Cede & Co. is the registered owner of the Series 2022B/C/D Bonds, as partnership nominee for DTC, references herein to Bondholders or registered owners of the Series 2022B/C/D Bonds (other than under the caption "TAX MATTERS") shall mean Cede & Co. and shall not mean the Beneficial Owners of the Series 2022B/C/D 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 2022B/C/D 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 2022B/C/D 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 2022B/C/D BONDS; (V) ANY CONSENT GIVEN OR OTHER ACTION TAKEN BY DTC AS THE OWNER OF THE SERIES 2022B/C/D BONDS; OR (VI) ANY OTHER MATTER.

EUROCLEAR AND CLEARSTREAM BANKING

Euroclear and Clearstream Banking each hold securities for their customers and facilitate the clearance and settlement of securities transactions by electronic book-entry transfer between their respective account holders. Euroclear and Clearstream Banking provide various services including safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Euroclear and Clearstream Banking also deal with domestic securities markets in several countries through established depository and custodial relationships. Euroclear and Clearstream Banking have established an electronic bridge between their two systems across which their respective participants may settle trades with each other.

Euroclear and Clearstream Banking customers are worldwide financial institutions, including underwriters, securities brokers and dealers, banks, trust companies and clearing corporations. Indirect access to Euroclear and Clearstream Banking is available to other institutions that clear through or maintain a custodial relationship with an account holder of either system, either directly or indirectly.

Clearing and Settlement Procedures

The Series 2022D Bonds sold in offshore transactions will be initially issued to investors through the book-entry facilities of DTC, or Clearstream Banking and Euroclear in Europe if the investors are participants in those systems, or indirectly through organizations that are participants in the systems. For any of such Series 2022D Bonds, the record holder will be DTC's nominee. Clearstream Banking and Euroclear will hold omnibus positions on behalf of their participants through customers' securities accounts in Clearstream Banking's and Euroclear's names on the books of their respective depositories.

The depositories, in turn, will hold positions in customers' securities accounts in the depositories' names on the books of DTC. Because of time zone differences, the securities account of a Clearstream Banking or Euroclear participant as a result of a transaction with a participant, other than a depository holding on behalf of Clearstream Banking or Euroclear, will be credited during the securities settlement processing day, which must be a business day for Clearstream Banking or Euroclear, as the case may be, immediately following the DTC settlement date. These credits or any transactions in the securities settled during the processing will be reported to the relevant Euroclear participant or Clearstream Banking participant on that business day. Cash received in Clearstream Banking or Euroclear as a result of sales of securities by or through a Clearstream Banking participant or Euroclear participant to a Direct Participant, other than the depository for Clearstream Banking or Euroclear, will be received with value on the DTC settlement date but will be available in the relevant Clearstream Banking or Euroclear cash account only as of the business day following settlement in DTC.

Transfers between DTC participants will occur in accordance with DTC rules. Transfers between Clearstream Banking participants or Euroclear participants will occur in accordance with their respective rules and operating procedures. Cross-market transfers between persons holding directly or indirectly through DTC, on the one hand, and directly or indirectly through Clearstream Banking participants or Euroclear participants, on the other, will be effected in DTC in accordance with DTC rules on behalf of the relevant European international clearing system by the relevant depositories; however, cross-market transactions will require delivery of instructions to the relevant European international clearing system by the counterparty in the system in accordance with its rules and procedures and within its established deadlines in European time. The relevant European international clearing system will, if the transaction meets its settlement requirements, deliver instructions to its depository to take action to effect final settlement on its behalf by delivering or receiving securities in DTC, and making or receiving payment in accordance with normal procedures for same day funds settlement applicable to DTC. Clearstream Banking participants or Euroclear participants may not deliver instructions directly to the depositories.

The Authority will not impose any fees in respect of holding the Series 2022D Bonds; however, holders of book-entry interests in the Series 2022D Bonds may incur fees normally payable in respect of the maintenance and operation of accounts in DTC, Euroclear and Clearstream Banking.

Initial Settlement

Interests in the Series 2022D Bonds will be in uncertified book-entry form. Purchasers electing to hold book-entry interests in the Series 2022D Bonds through Euroclear and Clearstream Banking accounts will follow the settlement procedures applicable to conventional Eurobonds. Book-entry interests in the Series 2022D Bonds will be credited to Euroclear and Clearstream Banking participants' securities clearance accounts on the business day following the date of delivery of the Series 2022D Bonds against payment (value as on the date of delivery of the Series 2022D Bonds). Direct Participants acting on behalf of purchasers electing to hold book-entry interests in the

Series 2022D Bonds through DTC will follow the delivery practices applicable to securities eligible for DTC's Same Day Funds Settlement system. Direct Participants' securities accounts will be credited with book-entry interests in the Series 2022D Bonds following confirmation of receipt of payment to the Authority on the date of delivery of the Series 2022D Bonds.

Secondary Market Trading

Secondary market trades in the Series 2022D Bonds will be settled by transfer of title to book-entry interests in DTC, Euroclear and Clearstream Banking. Title to such book-entry interests will pass by registration of the transfer within the records of DTC, Euroclear or Clearstream Banking, as the case may be, in accordance with their respective procedures. Book-entry interests in the Series 2022D Bonds may be transferred within DTC in accordance with procedures established for this purpose by DTC. Book-entry interests in the Series 2022D Bonds may be transferred within Euroclear and within Clearstream Banking and between Euroclear and Clearstream Banking in accordance with procedures established for these purposes by Euroclear and Clearstream Banking. Transfer of book-entry interests in the Series 2022D Bonds between DTC, Euroclear or Clearstream Banking may be effected in accordance with procedures established for this purpose by DTC, Euroclear and Clearstream Banking.

General

None of DTC, Euroclear or Clearstream Banking is under any obligation to perform or continue to perform the procedures referred to above, and such procedures may be discontinued at any time.

None of the Authority, the Trustee or the Underwriters will have any responsibility for the performance by DTC, Euroclear or Clearstream Banking or their respective direct or indirect participants or account holders of their respective obligations under the rules and procedures governing their operations or the arrangements referred to above.

The information in this Appendix E concerning DTC, Euroclear and Clearstream Banking has been obtained from sources that the Underwriters believe to be reliable, but the Underwriters take no responsibility for the accuracy thereof or make any representation as to the completeness or the accuracy of such information or as to the absence of material adverse changes in such information subsequent to the date hereof.

APPENDIX F
PROPOSED FORM OF OPINION OF CO-BOND COUNSEL

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[_____], 2022

To: District of Columbia Water and Sewer Authority

Goldman Sachs & Co. LLC
New York, New York,
as Representative of the Underwriters of the Series 2022B/C Bonds

Re: District of Columbia Water and Sewer Authority
Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds)
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C

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 Subordinate Lien Revenue Bonds, Series 2022B/C (the "Series 2022B/C Bonds"), comprised of the \$[Series B par amount] Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) (the "Series 2022B Bonds") and the \$[Series C par amount] Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C (the "Series 2022C Bonds"), dated the date of this letter.

The Series 2022B/C Bonds are issued pursuant to the Master Indenture of Trust, dated as of April 1, 1998 (the "Master Indenture"), between the Authority and Computershare Trust Company, National Association, as successor to Norwest Bank Minnesota, National Association (the "Trustee"), as supplemented and amended, including by the Thirtieth Supplemental Indenture of Trust, dated as of the same date as and relating to the Series 2022B/C Bonds (the "Thirtieth 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 2022B/C Bonds, a copy of each signed and authenticated Series 2022B Bond and Series 2022C 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 2022B/C Bonds and the Indenture are valid and binding obligations of the Authority, enforceable in accordance with their respective terms.
2. The Series 2022B/C Bonds constitute special, limited obligations of the Authority, and the principal of and interest and any premium (collectively, "debt service") on the Series 2022B/C Bonds, together with debt service on other Subordinate Debt or 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 2022B/C Bonds are secured as Subordinate Debt under the Indenture, including, without limitation, by a pledge of (i) Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures Subordinate Debt; and (ii) the moneys and Permitted Investments in the Bond Fund on a parity with the pledge of Net Revenues that secures other Subordinate Debt. The Series 2022B/C 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 2022B/C 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. The Series 2022B/C 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 2022B/C 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 2022B/C 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 2022B/C Bonds may cause interest on the Series 2022B/C 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 2022B/C Bonds and the enforceability of the Series 2022B/C Bonds and the Indenture are subject to bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or transfer, and other laws relating to or affecting the rights and remedies of creditors generally; to the application of equitable principles, whether considered in a proceeding at law or in equity; to the exercise of judicial discretion; and to limitations on legal remedies against public entities.

No opinions other than those expressly stated herein are implied or shall be inferred as a result of anything contained or omitted from this letter. The opinions expressed in this letter are stated only as of the time of its delivery and we disclaim any obligation to revise or supplement this letter thereafter. Our engagement as co-bond counsel in connection with the original issuance and delivery of the Series 2022B/C Bonds has concluded upon delivery of this letter.

Very truly yours,

[_____, 2022]

To: District of Columbia Water and Sewer Authority

Goldman Sachs & Co. LLC
New York, New York,
as representative for the underwriters

Re: \$[Series D par amount] District of Columbia Water and Sewer Authority Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable)

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 \$[Series D par amount] Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable) (the “Series 2022D Bonds”), dated the date of this letter.

The Bonds are issued pursuant to the Master Indenture of Trust, dated as of April 1, 1998 (the “Master Indenture”), between the Authority and Computershare Trust Company, N.A., as successor to Northwest Bank Minnesota, N.A. (the “Trustee”), as supplemented and amended, including the Thirty-First Supplemental Indenture of Trust, dated as of the same date as and relating the Series 2022D Bonds (the “Thirty-First 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 2022D Bonds, a copy of the signed and authenticated Series 2022D 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 2022D Bonds and the Indenture are valid and binding obligations of the Authority, enforceable in accordance with their respective terms.
2. The Series 2022D Bonds constitute special, limited obligations of the Authority, and the principal of and interest and any premium (collectively, “debt service”) on the Series 2022D Bonds, together with debt service on other Senior Debt and Subordinate 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 2022D Bonds are secured as Subordinate Debt under the Indenture, including, without limitation, by a pledge of (i) Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures Subordinate Debt; and (ii) the moneys and Permitted Investments in the Bond Fund on a parity with the pledge of Net Revenues that secures other Subordinate Debt. The Series 2022D 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. The Series 2022D 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 2022D 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.

The rights of the owners of the Bonds and the enforceability of the Series 2022D 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.

No opinions other than those expressly stated herein are implied or shall be inferred as a result of anything contained in or omitted from this letter. The opinions expressed in this letter are stated only as of the time of its delivery, and we disclaim any obligation to revise or supplement this letter thereafter. Our engagement as co-bond counsel to the Authority in connection with the issuance and delivery of the Bonds is concluded upon delivery of this letter.

Respectfully submitted,

**APPENDIX G –
OPINION LETTER OF INDEPENDENT SUSTAINABILITY CONSULTANT, DATED [_____, 2022]**

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M&A draft 12/30/21

BOND PURCHASE AGREEMENT

\$100,000,000*

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds)

\$120,000,000*

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1

\$80,000,000*

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D
(Federally Taxable)

_____, 2022

District of Columbia Water and Sewer Authority
1385 Canal Street S.E.
Washington, DC 20003

Ladies and Gentlemen:

Goldman Sachs & Co. LLC, as representative of the underwriters (the “Representative”) on behalf of itself and on behalf of Ramirez & Co., Bank of America Securities LLC, Barclays Capital, FTN Financial Capital Markets, Loop Capital Markets, Mesirov Financial, Morgan Stanley & Co. LLC and TD Securities (collectively, the “Underwriters”), offer to enter into this bond purchase agreement (this “Agreement”) with the District of Columbia Water and Sewer Authority (the “Authority”). The offer made hereby is subject to acceptance thereof by execution of this Agreement and its delivery to the Representative, on behalf of the Underwriters, at or prior to 5:00 p.m., New York, New York Time, on the date hereof, or on such other date or such other time as may be agreed upon by the Underwriters. Upon such acceptance, this Agreement shall be in full force and effect in accordance with its terms and shall be binding upon the Authority and the Underwriters. If this offer is not so accepted, it is subject to withdrawal by the Representative on behalf of the Underwriters upon written notice delivered to the Authority at any time prior to acceptance. Terms used but not defined herein are defined in the Indenture identified below.

1. **Background.** The Authority has invited the holders of certain of its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2014C, maturing on October 1, 2025, 2039,

* Preliminary, subject to change.

2041 and 2044 (the “Target 2014 Bonds”) to tender such bonds for purchase or, in the case of institutional holders or sophisticated municipal market professionals, for exchange, as more fully described in the Invitation to Tender or Exchange Bonds, dated _____, 2022 (the “Invitation”).

Subject to the terms of the Invitation, the Authority will issue its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 (the “Series 2022C-2 Bonds”) in exchange for the Target 2014 Bonds tendered for exchange and accepted by the Authority pursuant to the Invitation.

Subject to the terms of the Invitation, the Authority will apply certain proceeds of the Public Utility Subordinate Lien Revenue and Refunding Bonds, Series 2022C-1 Bonds sold pursuant to this Agreement to refund and discharge the Target 2014 Bonds tendered for purchase and accepted by the Authority pursuant the Invitation and to pay certain costs of issuing the Series 2022C-1 Bonds. The Series 2022C-1 Bonds, but not the Series 2022C-2 Bonds, are being purchased pursuant to this Agreement.

Pursuant to this Agreement, the Authority is also selling its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable) (the “Series 2022D Bonds”) in part to refund and defease Target 2014 Bonds which are not tendered for exchange or purchase (the “Refunded Bonds”).

All of the Bonds (as defined below) being offered, whether for exchange under the Invitation or for sale under this Agreement are described in the Official Statement, and the issuance of the Series 2022C-2 Bonds will occur concurrently with issuance of the Series 2022C-1 Bonds. Goldman Sachs & Co. LLC (the “Dealer Manager”) is serving as dealer manager for the tender and exchange under the Invitation pursuant to a Dealer Manager Agreement with the Authority, dated _____, 2022 (the “Dealer Manager Agreement”), and will be paid compensation under such agreement separate and apart from any compensation received hereunder. As the Official Statements describes all Series 2022 Bonds, whether offered for exchange or sale, for the convenience of the parties, the Authority acknowledges that all representations and warranties made hereunder to the Underwriters and all certificates and opinions delivered hereunder for the benefit of the Underwriters are also made for the benefit of, or will be delivered, to the Dealer Manager. As it relates to the Exchanged Series 2022C Bonds, the Dealer Manager Agreement is made solely for the benefit of the Dealer Manager and the Authority and any partner, director, officer, agent, employee, controlling person or affiliate, and their respective successors, assigns, and legal representatives; and no other person, including any other underwriters, shall acquire or have any right or obligation under or by virtue of the Dealer Manager Agreement.

2. **Purchase and Sale of Bonds.** On the terms and conditions and on the basis of the representations, warranties, covenants and agreements set forth herein, the Representative, on behalf of the Underwriters, hereby agrees to purchase from the Authority for offering to the public, and the Authority hereby agrees to sell and deliver to the Underwriters for such purpose, all (but not less than all) of its Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds), in the original principal amount of \$100,000,000 (the “Series 2022B Bonds”)

and its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C, in the original principal amount of \$00,000,000 consisting of \$ ___ of Series 2022C-1 and \$ ___ of Series C-2 Bonds and its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable), in the original principal amount of \$80,000,000 (the “Series 2022D Bonds” and collectively with the Series 2022B Bonds and the Series 2022C Bonds, the “Bonds”). The proceeds of the Series 2022B Bonds will be used to pay (i) a portion of the costs of the Authority’s DC Clean Rivers Project, and (ii) pay costs of issuing the Series 2022B Bonds. The proceeds of the Series 2022C-1 Bonds will be used to (i) pay the costs of certain capital improvements to the System, (ii) refund certain outstanding Commercial Paper of the Authority, (iii) refund and discharge the Target 2014 Bonds tendered for purchase and accepted by the Authority pursuant to the Invitation and (iv) pay the costs of issuing the Series 2022C Bonds. The proceeds of the Series 2022D Bonds will be used to (i) refund the Refunded Bonds, (ii) pay a portion of the Authority’s share of the Washington Aqueduct’s capital improvements and a portion of the costs of certain capital improvements to the System and (iii) pay the costs of issuing the Series 2022D Bonds. The purchase price of the Series 2022B Bonds will be \$ _____ (the par amount of the Series 2022B Bonds less the Underwriters’ discount of \$ _____ plus original issue premium of \$ _____). The purchase price of the Series 2022C-1 Bonds will be \$ _____ (the par amount of the Series 2022C-1 Bonds less the Underwriters’ discount of \$ _____ plus original issue premium of \$ _____). The purchase price of the Series 2022D Bonds will be \$ _____ (the par amount of the Series 2022D Bonds less the Underwriters’ discount of \$ _____ plus original issue premium of \$ _____). The Bonds other than the Series 2022C-2 Bonds, will mature on the dates and in the amounts and will bear interest and will be subject to redemption prior to maturity as set forth on Exhibit A hereto.

3. **Bond Authorization.** The Bonds shall be issued under and pursuant to provisions of the laws of the United States of America and the District of Columbia (the “District”), including particularly, an act of the Council of the District entitled the “Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996,” as amended, codified at District of Columbia Official Code Ann. Sections 34-2201.01 *et seq.*, and the acts amendatory thereof and supplemental thereto (the “Act”), and an act of the United States Congress entitled the “District of Columbia Water and Sewer Authority Act of 1996” (Public Law 104-184), as amended (the “Federal Act”), and all proceedings necessary to authorize and provide for the issuance of the Bonds, including Resolution No. 22-__ adopted by the Board of Directors of the Authority, on January 6, 2022 (the “Resolution”). The Series 2022B Bonds and the Series 2022C Bonds are issued under the Master Indenture of Trust, dated as of April 1, 1998 (the “Master Indenture”), between the Authority and Computershare Trust Company, N.A., as trustee (the “Trustee”), as amended and supplemented, including by the Thirtieth Supplemental Indenture of Trust, dated as of the Closing Date (as defined below) (the “Thirtieth Supplemental Indenture”) between the Authority and the Trustee, substantially in the forms previously delivered to us. The Series 2022D Bonds will also be issued under the Master Indenture, as amended and supplemented, including by the Thirty-First Supplemental Indenture of Trust, dated as of the Closing Date, between the Authority and the Trustee (the “Thirty-First Supplemental Indenture” and together with the Thirtieth Supplemental Indenture and the Master Indenture as previously amended and supplemented, the “Indenture”) substantially in the forms previously delivered to us.

4. **Closing.** At 11:00 a.m. Eastern Standard Time on March , 2022, or at such other time and date as may be mutually agreed upon by the Authority and the Underwriters (the “Closing Date”), the Authority will, subject to the terms and conditions hereof, deliver the Bonds to the Underwriters in definitive form, duly executed and authenticated, together with the other documents hereinafter required, and, subject to the terms and conditions hereof, the Underwriters will accept such delivery and pay the purchase price of the Bonds as set forth in Section 1 hereof in federal funds to the order of the Authority (the “Closing”). Delivery of the Bonds will be made through the facilities of The Depository Trust Company, New York, New York. The Closing will occur at the offices of Squire Patton Boggs (US) LLP, Washington, D.C., or such other place as may be mutually agreed on by the Authority and the Underwriters.

5. **Public Offering of the Bonds.** It is a condition of the Authority’s obligation to sell and deliver the Bonds to the Underwriters, and of the obligation of the Underwriters to purchase and accept delivery of the Bonds, that the entire principal amount of the Bonds is sold and delivered by the Authority and accepted and paid for by the Underwriters at the Closing, including, but not limited to, the Exchanged Series 2022C Bonds. The Underwriters intend to make an initial public offering of all of the Bonds at prices not in excess of the initial public offering prices set forth on the cover page of the Official Statement. The Underwriters may offer and sell the Bonds to certain dealers (including dealers depositing Bonds into investment trusts) at prices lower than the initial public offering prices.

6. **Preliminary and Final Official Statement.** The Authority ratifies and consents to the legally permissible use by the Underwriters, prior to the date hereof, of the Preliminary Official Statement, dated _____, 2022, relating to the Bonds (the “Preliminary Official Statement”) in connection with the public offering of the Bonds and the Authority represents that such Preliminary Official Statement is deemed final as of its date and as of the date hereof under Rule15c2-12 (“Rule 15c2-12”) promulgated by the U.S. Securities and Exchange Commission (the “SEC”) under the Securities Exchange Act of 1934, as amended (the “1934 Exchange Act”), except for Permitted Omissions (as defined in Rule 15c2-12). The form of the final Official Statement of the Authority relating to the Bonds, dated _____, 2022, including the cover page and Appendices thereto, and any revisions, amendments or supplements thereto (the “Official Statement”) as have been approved by the Authority, Co-Bond Counsel, and the Representative. The Authority authorizes, approves, ratifies and confirms the distribution of the Preliminary Official Statement and the Official Statement in paper and electronic format by the Underwriters in connection with the public offering and sale of the Bonds.

The Authority agrees to provide to the Underwriters, at such addresses as the Underwriters specify, as many copies of the Official Statement as the Underwriters reasonably request as necessary to comply with Rule G-32 and all other applicable rules of the Municipal Securities Rulemaking Board (the “MSRB”). The Authority agrees to deliver the Official Statement within seven business days after the date hereof and not later than one business day before the Closing Date and in sufficient time to accompany any confirmation that requests payment from any customer and to permit the Underwriters to comply with the requirements of Rule 15c2-12 (defined below). The Preliminary Official Statement and the Official Statement may be revised, amended, changed or supplemented by the Authority after the execution of this Agreement only with the permission of the Underwriters.

If, during the period from the date hereof to and including the date which is 25 days after the “end of the underwriting period” (as hereinafter defined), there shall exist any event, including, but not limited to, any material adverse change in the financial condition, results of operation or condition, financial or otherwise, of the Authority, and of which the Authority has knowledge, which, in the opinion of the Underwriters and counsel to the Underwriters or in the opinion of the Authority, requires a supplement or amendment to the Official Statement so that it will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, when it is delivered to a potential investor, the Authority will supplement or amend or cause to be supplemented or amended the Official Statement in a form and in a manner approved by the Underwriters and the Authority and will furnish to the Underwriters such supplement or amendment in sufficient quantity to permit the Underwriters to comply with the requirements of Rule 15c2-12 (“Rule 15c2-12”) promulgated by the Securities and Exchange Commission (the “SEC”) under the 1934 Exchange Act.

For the purpose of the preceding paragraph, the Authority may assume that the “end of the underwriting period” (in accordance with and as defined in Rule 15c2-12) means the Closing Date unless the Representative advises the Authority in writing on the Closing Date that there remains an unsold balance of the Bonds, in which case the “end of the underwriting period” means the date as of which the Representative notifies the Authority that the Underwriters, directly or as a syndicate, no longer retain an unsold balance of the Bonds for sale to the public. The deemed end of the underwriting period, in order to allow the Underwriters to comply with Rule 15c2-12, shall be extended for additional periods of 30 days each upon receipt of written notification from the Underwriters that any Bonds remain unsold however, in no event shall the “end of the underwriting period” extend beyond the date sixty (60) days from the Closing Date. The Representative agrees to provide to the Authority written notification that none of the Bonds remain unsold which will be deemed the end of the underwriting period.

The Representative hereby agrees to deliver a copy of the printed paper form of the Official Statement to the MSRB in an electronic format prescribed by the MSRB for its Electronic Municipal Market Access (“EMMA”) website at www.emma.msrb.org within one (1) business day of receipt of the executed final Official Statement by the Underwriters.

7. **Representations, Warranties and Covenants of the Authority.** The Authority hereby represents, warrants, covenants and agrees as follows:

a. The Authority is, and at the Closing Date will be, a duly organized and validly existing corporate body and independent authority of the District established under the laws of the United States and the District, including the Act and the Federal Act, with the full legal right, power and authority to (i) adopt the Resolution, (ii) execute, deliver and perform its obligations under this Agreement, the Indenture, the Certificate of Award of the Authority establishing the purchase price, maturities, interest rates, redemption provisions and other terms of the Bonds, dated the date hereof (the “Certificate of Award”), and the Continuing Disclosure Agreement of the Authority dated as of the Closing Date (the “Continuing Disclosure Agreement,” and together with this Agreement and the Indenture, the “Bond Documents”); (iii) perform its obligations under the Water Sales Agreement, dated as of July 31, 1997, between the Authority and the United States of America, acting through the Secretary of the Army (the

“Water Sales Agreement”) and the Blue Plains Intermunicipal Agreement of 2012 between the District, Fairfax County, Virginia, Montgomery County, Maryland, Prince George’s County, Maryland and the Washington Suburban Sanitary Commission (the “IMA,” and together with the Water Sales Agreement, the “System Agreements”), (iv) sell, issue and deliver the Bonds to the Underwriters as provided herein, and (v) carry out and consummate the transactions contemplated by the Resolution, the Bond Documents, the Preliminary Official Statement, the Official Statement and the System Agreements; and the Authority has complied, and at the Closing Date will be in compliance, in all material respects, with the Act and the Federal Act and with the obligations on its part in connection with the issuance of the Bonds contained in the Bonds, the Resolution, the Indenture, the Preliminary Official Statement, the Official Statement and this Agreement.

b. The Authority (i) has duly and validly adopted the Resolution, (ii) has authorized the execution and delivery of the Bond Documents, (iii) is authorized to execute, issue, sell and deliver the Bonds in book-entry form, (iv) is authorized to appoint, and has appointed, Computershare Trust Company, N.A., as Trustee (the “Trustee”), (v) is authorized to apply and will apply the proceeds of the Bonds as provided in and subject to all of the terms and provisions of the Resolution, including the payment or reimbursement of the Authority expenses incurred in connection with the negotiation, marketing, issuance and delivery of the Bonds to the extent required by Section 16, (vi) has taken or will take on or before the Closing Date, all action necessary or appropriate for (a) execution, issuance, sale and delivery of the Bonds, other than the Series 2022C-2 Bonds, in book-entry form to the Underwriters, (b) approval, execution and delivery of and the performance by the Authority of its obligations contained in the Bonds and the Bond Documents, (c) the approval, distribution and use of the Preliminary Official Statement and the approval, execution, distribution and use of the Official Statement for use by the Underwriters in connection with the public offering of the Bonds and (d) the consummation by it of all other transactions described in the Official Statement, the Bond Documents and any and all such other agreements and documents as may be required to be executed, delivered and/or received by the Authority in order to carry out, give effect to, and consummate the transactions described herein and in the Official Statement.

c. The adoption of the Resolution, the execution and delivery of the Bond Documents, the execution, issuance, sale and delivery of the Bonds in book-entry form and the performance by the Authority of its obligations hereunder and thereunder, and the performance by the Authority of its obligations under the System Agreements (collectively, the “Authority Undertakings”) are within the corporate powers of the Authority and are not in conflict with and will not constitute a breach, default or result in a violation of (i) the Act, (ii) any federal constitutional or federal or District statutory provision, including the Federal Act, (iii) any agreement or other instrument to which the Authority is a party, or (iv) any order, rule, regulation, decree or ordinance of any court of competent jurisdiction, government or governmental authority having jurisdiction over the Authority or its property.

d. The District has authorized the Authority to use all of the property and assets of the water distribution and wastewater collection, treatment and disposal systems of the Authority (the “System”), uninterrupted by the District, for as long as any revenue bonds of the Authority, including the Bonds, remain outstanding. The Authority has the full legal right,

power and authority to operate the System and to collect and pledge the Revenues therefrom in accordance with the Indenture.

e. The Resolution or other appropriate actions adopted or taken by the Authority establishing the rates and charges for services of the System described in the Preliminary Official Statement and the Official Statement have been duly adopted or taken and are in full force and effect.

f. The System Agreements and all other agreements, permits, licenses, consents, approvals, actions, consent decrees and settlement orders material to the operation and management of the System, including the collection of the Revenues therefrom as described in the Preliminary Official Statement and the Official Statement, are in full force and effect as of the date hereof and will be on the Closing Date, and the Authority is not and will not be in default thereunder or in breach thereof. The System Agreements have been duly authorized, executed and delivered by the Authority and constitute valid and binding obligations of the Authority enforceable in accordance with their respective terms, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally and subject, as to enforceability, to general principles of equity.

g. The Bonds, when issued, delivered to the Underwriters and paid for, in accordance with the Act, the Resolution, the Indenture and this Agreement, will have been duly authorized, executed, issued and delivered by the Authority and will constitute valid and binding obligations of the Authority, enforceable against the Authority in accordance with their terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium and similar laws affecting creditors' rights generally and subject, as to enforceability, to general principles of equity. The Bonds are not a pledge of and do not involve the faith and credit or the taxing power of the District and the District shall not be liable thereon. The Bonds, the Indenture and the Resolution conform to the descriptions thereof contained in the Preliminary Official Statement and the Official Statement and the proceeds of the sale of the Bonds will be applied as described in the Preliminary Official Statement and the Official Statement.

h. The Authority is not currently failing to comply and except as disclosed in the Preliminary Official Statement and the Official Statement, has not failed to comply during the past five years with any continuing disclosure obligation pursuant to Rule 15c2-12. The Authority has agreed to deliver to the Underwriters a Continuing Disclosure Agreement with respect to the Bonds that complies with the requirements of Rule 15c2-12.

i. This Agreement constitutes, and, upon execution and delivery by the Authority and the other parties thereto, each of the other Bond Documents will constitute, the valid, binding and enforceable obligation of the Authority in accordance with their respective terms, subject to applicable bankruptcy, insolvency, and similar laws affecting creditors' rights generally and subject, as to enforceability, to general principles of equity.

j. The Authority is not in material breach of or material default under any applicable constitutional provision or law of the United States, the District or any applicable judgment or decree, or any loan agreement, indenture, bond, note, resolution, agreement or other instrument to which it is a party or to which it or any of its property or assets is otherwise

subject, and no event has occurred and is continuing which, with the passage of time or the giving of notice, or both, would constitute a default or event of default under any such instrument; and the execution and delivery of the Bonds, this Agreement and the other Bond Documents and the adoption of the Resolution, and compliance with the provisions contained therein and herein, and in the System Agreements, do not conflict with or constitute a breach of or default under any constitutional provision, law, administrative regulation, judgment, decree, loan agreement, indenture, bond, note, resolution, agreement, or other instrument to which it is a party or any of its property or assets are otherwise subject, nor will any such execution, delivery, adoption, or compliance result in the creation or imposition of any lien, charge, or other security interest or encumbrance of any nature whatsoever upon any of its property or assets or under the terms of any such law, regulation or instrument, except as provided by the Bonds.

k. All authorizations, approvals, licenses, permits, consents and orders of any governmental authority, legislative body, board, agency or commission having jurisdiction of the matter have been duly obtained or, with respect to the issuance of the Bonds, will be obtained prior to the issuance of the Bonds, which are required for the due authorization by or which would constitute a condition precedent to or the absence of which would materially adversely affect the due performance by the Authority of its obligations in connection with the issuance of the Bonds and under this Agreement, except for such approvals, consents and orders as may be required under the Blue Sky or securities laws of any state in connection with the offering and sale of the Bonds.

l. Except as otherwise described in the Preliminary Official Statement and the Official Statement, there is no litigation, action, suit, proceeding, inquiry or investigation, at law or in equity, before or by any court, government agency, public board or body, pending or, to the best knowledge of the Authority, threatened against the Authority (i) affecting or seeking to prohibit, restrain or enjoin the issuance, sale or delivery of the Bonds, the use of the Preliminary Official Statement or the Official Statement or the collection of the Revenues pledged to the payment of the principal of and interest on the Bonds, (ii) in any way contesting or affecting any authority for the issuance of the Bonds or the validity, enforceability, due authorization, execution or delivery of the Bonds, including this Agreement or the other Bond Documents, or the validity or enforceability of the System Agreements, nor, to the best knowledge of the Authority, is there any basis therefor, wherein an unfavorable decision, ruling or finding would materially adversely affect the validity or enforceability of the Bonds or the Bond Documents, (iii) questioning the tax-exempt status of the Series 2022B Bonds or the Series 2022C Bonds (the "Series 2022B/C Bonds") under the laws of the United States or the tax-exempt status of the Bonds under the laws of the District, (iv) affecting or in any way contesting the corporate existence or powers of the Authority or the titles of the officers of the Authority to their respective offices, (v) which may result in any material adverse change in the business or the financial condition or the financial prospects of the Authority or (vi) asserting that the Preliminary Official Statement or the Official Statement or any supplement thereto contains any untrue statement of a material fact or omits any material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

m. The Authority will furnish such information, execute such instruments and take such other action in cooperation with the Underwriters as the Underwriters may reasonably request in order to (i) qualify the Bonds for offer and sale under the Blue Sky or other securities

laws and regulations of such states and other jurisdictions of the United States as the Underwriters may designate, (ii) determine the eligibility of the Bonds for investment under the laws of such states and other jurisdictions, and (iii) continue such qualifications in effect so long as required for the distribution of the Bonds and will advise the Representative promptly of receipt by the Authority of any written notification with respect to the suspension of the qualification of the Bonds for sale in any jurisdiction or the initiation or threat of any proceeding for that purpose; provided, however, that the Authority will not be required to execute a general or special consent to service of process or qualify to do business in connection with any such qualification or determination in any jurisdiction.

n. The audited balance sheets of the Authority for the years ended September 30, 2021 and September 30, 2020, and the related statements of revenues, expenditures and changes in net assets and cash flows for the fiscal year ended on such date, as set forth in the Preliminary Official Statement and the Official Statement, are true, complete and correct and fairly present the financial condition of the Authority as of such date and the results of its operations for such fiscal year. There has been no material adverse change in the financial condition of the Authority since September 30, 2021, except as described in the Preliminary Official Statement and the Official Statement. The financial statements of, and other financial information of the Authority in the Preliminary Official Statement and in the Official Statement fairly present the financial position and results of the Authority as of the dates and for the periods therein set forth, and except as noted in the Preliminary Official Statement and in the Official Statement, the other historical financial information set forth in the Preliminary Official Statement and in the Official Statement has been presented on a basis consistent with that of the Authority's audited financial statements included or incorporated by reference in the Preliminary Official Statement and in the Official Statement.

o. The Authority has duly authorized, approved and delivered the Preliminary Official Statement and the Official Statement to the Underwriters.

p. The Preliminary Official Statement, as of its date and as of the date of this Agreement, did not and does not, and the Official Statement, is, as of its date and (unless the Official Statement is amended or supplemented pursuant to this Agreement) at all times subsequent thereto during the period up to and including the Closing Date, did not and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. If between the date of the Official Statement and the Closing Date any event shall occur or any pre-existing fact or condition shall become known to the Authority that might or would cause the Official Statement, as then supplemented or amended, to contain any untrue statement of a material fact or to omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, the Authority shall promptly notify the Underwriters thereof, and if in the reasonable opinion of the Representative, such event, fact or condition requires the preparation and publication of a supplement or amendment to the Official Statement, the Authority will at its expense supplement or amend the Official Statement in a form and in a manner approved by the Underwriters, which approval shall not be unreasonably withheld. If the Official Statement is supplemented or amended as aforesaid, at the time of each supplement or amendment thereto and (unless subsequently again supplemented or amended pursuant to such paragraph) at all times

subsequent thereto during the underwriting period, as defined in Section 6, the Official Statement as so supplemented or amended will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which made, not misleading.

q. The obligation of the Authority to know or provide information within the knowledge of the Authority is limited to providing information that is in the actual knowledge of, or reasonably should have been in the actual knowledge of, the key staff members of the Authority listed in the Official Statement under the caption “Senior Management” or their respective successors.

r. The Authority undertakes that, for a period beginning with the day on which the Bonds are delivered to the Underwriters and ending on the 25th day following the end of the underwriting period, as defined in Section 6, it will apprise the Underwriters of all material developments, if any, occurring with respect to the Authority, and if requested by the Underwriters, at the Authority’s expense, prepare a supplement to the Official Statement in respect of any such material event.

s. The Authority has not been notified of any listing or proposed listing by the Internal Revenue Service to the effect that the Authority is a bond issuer whose arbitrage certificates may not be relied upon.

t. Any certificate signed by an authorized delegate of the Authority in connection with the transactions described in this Agreement will be deemed a representation, warranty, covenant and agreement by the Authority to the Underwriters as to the statements made therein.

u. Prior to the Closing, the Authority will not take any action within or under its control that will cause any adverse change of a material nature in the Authority’s financial position, or its results of operations or condition, financial or otherwise.

v. The Authority will not, prior to the Closing, offer or issue any bonds, notes or other obligations for borrowed money or incur any material liabilities, direct or contingent, except in the ordinary course of business, without the prior approval of the Representative, other than its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E and the Exchanged Series 2022C Bonds, dated the date of Closing.

w. The Bonds, the Thirtieth Supplemental Indenture and the Thirty-First Supplemental Indenture conform to the descriptions thereof contained in the Preliminary Official Statement and the Official Statement under the caption “THE SERIES 2022B/C/D BONDS” and in Appendix C “GLOSSARY AND SUMMARY OF THE INDENTURE.”

8. **Representations of Underwriters.** The Underwriters represent and warrant that they will offer the Bonds, subject to this Agreement, only pursuant to the Official Statement and the Underwriters agree to make a public offering of the Bonds at the initial offering prices or yields set forth in the Official Statement as the Underwriters may deem necessary or desirable in connection with the offering and sale of the Bonds and to sell the Bonds to dealers (including dealer banks and dealers depositing Bonds into investment trusts) and others at prices lower than

the public offering prices. At the Closing, the Representative, on behalf of the Underwriters, shall deliver to the Authority a certificate, acceptable to Co-Bond Counsel, substantially in the form of Exhibit D hereto. The Underwriters agree to deliver a final Official Statement to all purchasers of the Bonds in accordance with all applicable legal requirements.

9. **Rights to Cancellation by Underwriters.** The Underwriters will have the right to cancel their obligation to purchase, accept delivery of and to pay for the Bonds if between the date hereof and the Closing Date, the market price or marketability of the Bonds or the ability of the Underwriters to enforce contracts for the sale of the Bonds shall be materially adversely affected in the reasonable judgment of the Representative, on behalf of the Underwriters, by the occurrence of any of the following: (a) legislation has been enacted by or introduced in Congress or a decision by a federal court of the United States or the United States Tax Court has been rendered, or a ruling, regulation or official statement by or on behalf of the Treasury Department of the United States, the Internal Revenue Service or other governmental agency has been made or proposed to be made with respect to federal taxation on revenues or other income to be derived from the operation of the Authority, or other actions or events have occurred which have the purpose or effect, directly or indirectly, of materially adversely affecting the federal income tax consequences of any of the transactions contemplated in connection herewith, including the tax-exempt status of bonds issued by the Authority under the Internal Revenue Code of 1986, as amended, or (b) legislation has been enacted, or actively considered for enactment with an effective date being prior to the date of the issuance of the Bonds, or a decision by a court of the United States has been rendered, or a ruling or regulation by the SEC or another governmental agency having jurisdiction of the subject matter has been made, the effect of which is that the Bonds are not exempt from the registration or other requirements of the Securities Act of 1933, as amended and as then in effect (the "1933 Securities Act"), or that the Indenture is not exempt from the qualification or other requirements of the Trust Indenture Act of 1939, as amended and as then in effect (the "Trust Indenture Act"), or (c) a stop order, ruling or regulation by the SEC has been issued or made, the effect of which is that the issuance, offering or sale of the Bonds as contemplated hereby or by the Official Statement is or would be in violation of any provision of the 1933 Securities Act, or of the 1934 Exchange Act, or of the Trust Indenture Act, or (d) there exists any event which in the reasonable judgment of the Underwriters either (i) makes untrue or incorrect any statement or information of a material fact contained in the Official Statement or (ii) is not reflected in the Official Statement but should be reflected therein in order to make the statements and information contained therein, in light of the circumstances under which they were made, not misleading, and, in either such event the Authority refuses to permit the Official Statement to be supplemented to correct or supply such statement or information, or the statement or information as supplemented is such as in the reasonable judgment of the Underwriters would materially adversely affect the market for the Bonds or the sale, at the contemplated offering price, by the Underwriters of the Bonds, or (e) there has occurred any new outbreak of hostilities (including, without limitation, an act of terrorism) or escalation of hostilities existing prior to the date hereof or any other extraordinary event, material national or international calamity or crisis, including a financial crisis, not existing on the date hereof, or (f) any new restriction on transactions in securities materially affecting the market for securities (including the imposition of any limitation on interest rates or the establishment of minimum or maximum prices) or any material increase of restrictions now in force (including the extension of credit by, or a charge to the net capital requirements of, Underwriters) shall have been established by the New York Stock Exchange, the SEC, any other federal agency, the Congress

of the United States, or by Executive Order, or (g) there is in force a general suspension of trading in securities on the New York Stock Exchange or any other national securities exchange or (h) a general banking moratorium has been declared by Federal, District or New York authorities, or (i) there has occurred since the date hereof any material adverse change in the affairs of the Authority from that reflected in the financial information and data of the Authority included in or as an appendix to the Official Statement, other than as previously disclosed to the Underwriters, or (j) a material disruption in securities settlement, payment or clearance services shall have occurred, or (k) there shall have occurred any downgrading or published negative credit watch or similar published information from a rating agency that on the date hereof has published a rating (or has been asked to furnish a rating on the Bonds) on any of the Authority's debt obligations, which action reflects a change or possible change in the ratings accorded any such obligations of the Authority (including any rating to be accorded to the Bonds) or (l) there shall have occurred any downgrading or published negative credit watch or similar published information from a rating agency that at the date of this Agreement has published a rating (or has been asked to furnish a rating on the Bonds) on any of the Authority's debt obligations, which action reflects a change or possible change, in the ratings accorded any such obligations of the Authority (including any rating to be accorded the Bonds).

10. Rights to Cancellation by the Authority. The Authority will have the right to cancel its obligation to issue, sell and deliver the Bonds if between the date hereof and the Closing Date, the market price or marketability of the Bonds shall be materially adversely affected, in the reasonable judgment of the Authority, by the occurrence of any of the following: (a) legislation has been enacted by or introduced in Congress or a decision by a federal court of the United States or the United States Tax Court has been rendered, or a ruling, regulation or official statement by or on behalf of the Treasury Department of the United States, the Internal Revenue Service or other governmental agency has been made or proposed to be made with respect to federal taxation on revenues or other income to be derived from the operation of the Authority, or other actions or events have occurred which have the purpose or effect, directly or indirectly, of materially adversely affecting the federal income tax consequences of any of the transactions contemplated in connection herewith, or (b) legislation has been enacted, or actively considered for enactment with an effective date being prior to the date of the issuance of the Bonds, or a decision by a court of the United States has been rendered, or a ruling or regulation by the SEC or another governmental agency having jurisdiction of the subject matter has been made, the effect of which is that the Bonds are not exempt from the registration or other requirements of the 1933 Securities Act, or that the Indenture is not exempt from the qualification or other requirements of the Trust Indenture Act, or (c) a stop order, ruling or regulation by the SEC has been issued or made, the effect of which is that the issuance, offering or sale of the Bonds as contemplated hereby or by the Official Statement is or would be in violation of any provision of the 1933 Securities Act, or of the 1934 Exchange Act, or of the Trust Indenture Act, or (d) there has occurred any new outbreak of hostilities (including, without limitation, an act of terrorism) or escalation of hostilities existing prior to the date hereof or any other extraordinary event, material national or international calamity or crisis, including a financial crisis, not existing on the date hereof, or (e) any new restriction on transactions in securities materially affecting the market for securities (including the imposition of any limitation on interest rates or the establishment of minimum or maximum prices) or any material increase of restrictions now in force (including the extension of credit by, or a charge to the net

capital requirements of, Underwriters) shall have been established by the New York Stock Exchange, the SEC, any other federal agency, the Congress of the United States, or by Executive Order, or (f) there is in force a general suspension of trading in securities on the New York Stock Exchange or any other national securities exchange or (g) a general banking moratorium has been declared by Federal, District or New York authorities, or (h) a material disruption in securities settlement, payment or clearance services shall have occurred.

11. Conditions to Obligations of Underwriters at Closing. The Underwriters have entered into this Agreement in reliance on the representations, warranties, covenants and agreements of the Authority contained herein, and in reliance on the representations, warranties, covenants and agreements to be contained in the documents and instruments to be delivered at the Closing and on the performance by the Authority of its obligations hereunder, as of the Closing Date. Accordingly, the Underwriters' obligations under this Agreement to purchase, to accept delivery of and to pay for the Bonds, are conditioned on the performance by the Authority of its obligations to be performed hereunder and the delivery of such documents and instruments enumerated herein in form and substance reasonably satisfactory to the Underwriters and Orrick, Herrington & Sutcliffe LLP, and McKenzie & Associates, co-counsel to the Underwriters, at or before the Closing, and are also subject to the following additional conditions:

a. The representations, warranties, covenants and agreements of the Authority contained herein are true, complete and correct on the date hereof and on and as of the Closing Date, as if made on the Closing Date;

b. The provisions of the Act and the Federal Act, as in effect on the date of this Agreement, shall be in full force and effect and shall not have been amended, except as to amendments which, in the reasonable opinion of the Underwriters, are not adverse to the interest of the Underwriters or the Bondholders;

c. At the time of the Closing, the Resolution is in full force and effect in accordance with its terms and has not been amended, modified or supplemented, and the Official Statement has not been supplemented or amended, except in any such case as may have been agreed to by the Underwriters;

d. At the time of the Closing, all official action of the Authority relating to the Bonds, the Bond Documents and the System Documents are in full force and effect in accordance with their respective terms and have not been amended, modified or supplemented, except in each case as may have been agreed to by the Underwriters;

e. At the time of the Closing the Authority will perform or will have performed all of its obligations required under or specified in this Agreement, the Resolution and the Indenture, or contemplated by the Resolution, the Indenture or the Official Statement, to be performed prior to the Closing; and

f. At or before the Closing, the Underwriters will have received true and correct copies of each of the following documents:

i. A certified copy of the Resolution;

ii. The Official Statement and each supplement or amendment, if any, thereto, executed by the Authority;

iii. Counterparts of each of the fully executed Bond Documents and the System Agreements;

iv. The approving opinion of Co-Bond Counsel in substantially the form attached to Preliminary Official Statement and the Official Statement as Appendix F and a supplemental opinion, dated the Closing Date, in form and substance satisfactory to the Underwriters, and reliance letters with respect to such opinions addressed to Computershare Trust Company, N.A., as Trustee;

v. An opinion, dated the Closing Date, of the Chief Legal Officer and Executive Vice President Legal Affairs, of the Authority, substantially in the form of Exhibit B hereto;

vi. An opinion, dated the Closing Date, of Orrick, Herrington & Sutcliffe LLP and McKenzie & Associates, co-counsel to the Underwriters, substantially in the form of Exhibit C hereto;

vii. An opinion, dated the Closing Date, of Squire Patton Boggs (US) LLP and Bellamy Penn LLC, in their capacity as co-disclosure counsel to the Authority, in form and substance satisfactory to the Underwriters and their co-counsel;

viii. An opinion, dated the Closing Date, of counsel to the Trustee, in a form approved by the Underwriters and their co-counsel;

ix. A signed Financial Feasibility Opinion Letter dated _____, 2022, of Amawalk Consulting Group LLC (the "Financial Feasibility Consultant"), regarding the financial feasibility of the issuance of the Bonds in substantially the form attached to the Preliminary Official Statement and the final Official Statement as Appendix A and a certificate of the Financial Feasibility Consultant with respect to the issuance and sale of the Bonds, permitting the use of such letter and references to said firm in the Preliminary Official Statement and the Official Statement in form and substance satisfactory to the Underwriters;

x. One or more certificates of the Authority, dated the Closing Date, (A) to the effect that the representations, warranties, covenants and agreements of the Authority herein are true and correct on and as of the Closing Date as if made on the Closing Date, and that the Authority has performed all obligations to be performed hereunder as of the Closing Date; (B) to the effect that the Bond Documents, the Bonds and the System Agreements have not been modified, amended or repealed after the date hereof without the written consent of the Underwriters; (C) to the effect that no material change has occurred with respect to the System from the period from the date of this Agreement through the Closing Date;

xi. Evidence of the completion of Internal Revenue Service Form 8038-G with respect to the issuance of the Series 2022B/C Bonds;

xii. Evidence that Moody's Investors Service, Inc. ("Moody's"), S&P Global Ratings Services ("S&P") and Fitch Ratings ("Fitch") have issued ratings on the Bonds of " ", " " and " " respectively;

xiii. Such additional legal opinions, certificates, instruments and other documents as the Underwriters may reasonably request to evidence the truth and accuracy, as of the Closing Date, of the Authority's representations, warranties, covenants and agreements contained herein and of the statements and information contained in the Official Statement and the due performance or satisfaction by the Authority on or prior to the Closing Date of all the agreements then to be performed and conditions then to be satisfied by it.

All the opinions, letters, certificates, instruments and other documents mentioned above or elsewhere in this Agreement will be deemed to be in compliance with the provisions hereof if, but only if, they are in form and substance satisfactory to the Underwriters.

12. Obligations Upon Cancellation. If the Authority is unable to satisfy the conditions to the obligations of the Underwriters to purchase, to accept the delivery of and to pay for the Bonds contained in this Agreement, or if the obligations of the Underwriters to purchase, to accept delivery of and to pay for the Bonds is terminated for any reason permitted by this Agreement, this Agreement will terminate and neither the Underwriters nor the Authority will be under any further obligation hereunder, except that the Authority and the Underwriters shall pay their respective expenses as set forth in Section 15.

13. Certain Information Provided by Underwriters. The Underwriters confirm and the Authority acknowledges that the statements with respect to the public offering of the Bonds by the Underwriters set forth on the cover page of the Official Statement, the legend concerning over-allotments in the Official Statement and the text under the caption "UNDERWRITING" in the Official Statement constitute the only information concerning the Underwriters furnished in writing to the Authority by or on behalf of the Underwriters for inclusion in the Official Statement.

14. Establishment of Issue Price.

a. The Representative on behalf of the Underwriters agrees to assist the Authority in establishing the issue price of the Series 2022B/C Bonds and shall execute and deliver to the Authority at Closing an "issue price" or similar certificate, together with the supporting pricing wires or equivalent communications, substantially in the form attached hereto as **Exhibit D**, with such modifications as may be appropriate or necessary, in the reasonable judgment of the Representative, the Authority and Bond Counsel, to accurately reflect, as applicable, the sales price or prices or the initial offering price or prices to the public of the Series 2022B/C Bonds. All actions to be taken by the Authority under this Section to establish the issue price of the Series 2022B/C Bonds may be taken on behalf of the Authority by PFM Financial Advisors LLC and Sustainable Capital Advisors (collectively, the "Municipal Advisor") and any notice or report to be provided to the Authority may be provided to the Municipal Advisor.

b. The Authority will treat the first price at which at least 10% of each maturity of the Series 2022B/C Bonds (the “10% test”) is sold to the public as the issue price of that maturity (if different interest rates apply within a maturity, each separate CUSIP number within that maturity will be subject to the 10% test). At or promptly after the execution of this Bond Purchase Agreement, the Representative shall report to the Authority the price or prices at which the Underwriters have sold to the public each maturity of Series 2022B/C Bonds. If at that time the 10% test has not been satisfied as to any maturity of the Series 2022B/C Bonds, the Representative agrees to promptly report to the Authority the prices at which Series 2022B/C Bonds of that maturity have been sold to the public. That reporting obligation shall continue, whether or not the Closing Date has occurred, until the 10% test has been satisfied as to the Series 2022B/C Bonds of that maturity or until all Series 2022B/C Bonds of that maturity have been sold to the public, provided that, the Underwriters’ reporting obligation after the Closing Date may be reasonable periodic intervals or otherwise upon request of the Authority.

c. The Authority acknowledges that, in making the representation set forth in this subsection, the Representative will rely on (i) the agreement of each Underwriter to comply with the hold-the-offering price rule, if applicable, as set forth in an agreement among underwriters and the related pricing wires, (ii) in the event a selling group has been created in connection with the initial sale of the Series 2022B/C Bonds to the public, the agreement of each dealer who is a member of the selling group to comply with the hold-the-offering-price rule, if applicable, as set forth in a selling group agreement and the related pricing wires, and (iii) in the event that an Underwriter is a party to a retail distribution agreement that was employed in connection with the initial sale of the Series 2022B/C Bonds to the public, the agreement of each broker-dealer that is a party to such agreement to comply with the hold-the-offering-price rule, if applicable, as set forth in the retail distribution agreement and the related pricing wires. The Authority further acknowledges that each Underwriter shall solely be liable for its failure to comply with its agreement regarding the hold-the-offering-price rule and no Underwriter shall be liable for the failure of any other Underwriter, or of any dealer who is a member of a selling group, or of any broker-dealer that is a party to a retail distribution agreement, to comply with its corresponding agreement regarding the hold-the-offering-price rule as applicable to the Series 2022B/C Bonds.

d. The Representative confirms that:

(i) any agreement among underwriters, any selling group agreement and each retail distribution agreement (to which the Representative is a party) relating to the initial sale of the Series 2022B/C Bonds to the public, together with the related pricing wires, contains or will contain language obligating each Underwriter, each dealer who is a member of the selling group and each broker-dealer that is a party to such retail distribution agreement, as applicable, to (A) report the prices at which it sells to the public the unsold Series 2022B/C Bonds of each maturity allotted to it until it is notified by the Representative that either the 10% test has been satisfied as to the Series 2022B/C Bonds of that maturity or all of the Series 2022B/C Bonds of that maturity have been sold to the public and (B) comply with the hold-the-offering-price rule, if applicable, in each case if and for so long as directed by the Representative and as set forth in the related pricing wires, and

(ii) any agreement among underwriters relating to the initial sale of the Series 2022B/C Bonds to the public, together with any related pricing wires, contains or will contain language obligating each Underwriter that is a party to a retail distribution agreement to be

employed in connection with the initial sale of the Series 2022B/C Bonds to the public to require each broker-dealer that is a party to such retail distribution agreement to (A) report the prices at which it sells to the public the unsold Series 2022B/C Bonds of each maturity allotted to it until it is notified by the Representative or the Underwriter that either the 10% test has been satisfied as to the Series 2022B/C Bonds of that maturity or all Series 2022B/C Bonds of that maturity have been sold to the public and (B) comply with the hold-the-offering-price rule, if applicable, in each case if and for so long as directed by the Representative or the Underwriter and as set forth in the related pricing wires.

e. The Underwriters acknowledge that sales of any Series 2022B/C Bonds to any person that is a related party to an Underwriter shall not constitute sales to the public for purposes of this section. Further, for purposes of this section:

i. “public” means any person other than an underwriter or a related party,

ii. “underwriter” means (A) any person that agrees pursuant to a written contract with the Authority (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the Series 2022B/C Bonds to the public and (B) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (A) to participate in the initial sale of the Series 2022B/C Bonds to the public (including a member of a selling group or a party to a retail distribution agreement participating in the initial sale of the Series 2022B/C Bonds to the public),

iii. a purchaser of any of the Series 2022B/C Bonds is a “related party” to an underwriter if the underwriter and the purchaser are subject, directly or indirectly, to (A) at least 50% common ownership of the voting power or the total value of their stock, if both entities are corporations (including direct ownership by one corporation of another), (B) more than 50% common ownership of their capital interests or profits interests, if both entities are partnerships (including direct ownership by one partnership of another), or (C) more than 50% common ownership of the value of the outstanding stock of the corporation or the capital interests or profit interests of the partnership, as applicable, if one entity is a corporation and the other entity is a partnership (including direct ownership of the applicable stock or interests by one entity of the other), and

iv. “sale date” means the date of execution of this Bond Purchase Agreement by all parties.

15. **No Advisory or Fiduciary Role.** The Authority acknowledges and agrees that: (i) the transactions contemplated by this Agreement are arm’s-length, commercial transactions between the Authority and the Underwriters in which the Underwriters are acting solely as principals, and are not acting as an agent, a municipal advisor, financial advisor or fiduciary to the Authority; (ii) the Underwriters have not assumed any advisory or fiduciary responsibility to the Authority with respect to the transactions contemplated hereby and the discussions, conferences, negotiations, undertakings and procedures leading thereto (irrespective of whether the Underwriters or their affiliates have provided other services or are currently providing other services to the Authority on other matters); (iii) the only obligations the Underwriters have to the Authority with respect to the transaction contemplated hereby expressly

are set forth in this Agreement; (iv) the Authority has consulted its own financial and/or municipal, legal, accounting, tax, and other advisors, as applicable, to the extent it has deemed appropriate; and (v) this Agreement expresses the entire relationship between the parties hereto.

16. **Expenses.** The Authority will pay all costs of issuance of the Bonds including, but not limited to (a) the cost of preparation and posting of the Preliminary Official Statement and the cost of preparation, posting, printing and delivery of the Official Statement, including the number of copies the Underwriters and the Authority deem reasonable; (b) any cost of preparation of the Bonds; (c) the fees and disbursements of Co-Bond Counsel; (d) the fees and disbursements of any accountants, consultants, financial advisors or additional legal counsel retained in connection with the issuance of the Bonds, including the Independent Engineer and the Financial Feasibility Consultant; (e) fees for Bond ratings and CUSIP numbers; (f) the expenses of travel, lodging and meals for Authority representatives in connection with the negotiation, marketing, issuance and delivery of the Bonds; (g) all advertising expenses in connection with the public offering of the Bonds, including investor meetings; (h) the costs of filing fees required by any of the Blue Sky laws; and (i) all reasonable and necessary out-of-pocket associated with the issuance of the Bonds. The Authority shall reimburse the Underwriters for the fees and expenses of Underwriters' counsel, any expense advanced or incurred by the Underwriters for which the Authority is responsible hereunder including (f) above and other reasonable expenses incurred in connection with the performance of Underwriters' obligations hereunder (reimbursement may be included in the expense component of the Underwriters' discount, which the Underwriters acknowledge includes their expenses as set forth in Section 1).

17. **Notices.** Any notice or other communication to be given to the Authority under this Agreement may be given by delivering the same in writing to the address shown on the first page of this Agreement to the attention of the Chief Financial Officer and Executive Vice President, Finance and Procurement, and any notice or other communication to be given to the Representative under this Agreement may be given by delivering the same in writing to Goldman Sachs & Co. LLC, 200 West Street, New York, NY 10282, Attention: Freda Wang, Managing Director.

18. **Parties in Interest; Survival of Representations and Warranties.** This Agreement, when accepted in accordance with the provisions hereof, shall constitute the entire agreement between the Authority and the Underwriters and is made solely for the benefit of the Authority and the Underwriters (including the successors or assigns of the Authority or the Underwriters) and no other person will acquire or have any right hereunder or by virtue hereof. All of the Authority's and Underwriters' representations, warranties, covenants and agreements contained in this Agreement will remain operative and full force and effect regardless of (a) any investigations made by or on behalf of the Underwriters; or (b) delivery of and payment for the Bonds pursuant to this Agreement.

19. **Effective Date.** This Agreement will become effective upon its acceptance by the Authority, as evidenced by the execution hereof by the appropriate official of the Authority and will be valid and enforceable at the time of such acceptance.

20. Execution in Counterparts. This Agreement may be executed in counterparts each of which shall be regarded as an original and all of which shall constitute one and the same document.

21. Finder. The Authority represents and warrants that no finder or other agent of a finder has been employed or consulted by it in connection with this transaction.

21. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the District of Columbia.

GOLDMAN SACHS & CO. LLC
RAMIEREZ & CO.
BANK OF AMERICA SECURITIES LLC
BARCLAYS CAPITAL
FTN FINANCIAL CAPITAL MARKETS
LOOP CAPITAL MARKETS
MESIROW FINANCIAL
MORGAN STANLEY & CO. LLC
TD SECURITIES

By: GOLDMAN SACHS & CO. LLC,
as Representative of the Underwriters

By: _____
Authorized Representative

[SIGNATURE PAGE TO SERIES 2022B/C/D BOND PURCHASE AGREEMENT]

Accepted: _____, 2022

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

By _____

Name: Matthew Brown

Title: Chief Financial Officer and Executive Vice
President, Finance and Procurement

[SIGNATURE PAGE TO SERIES 2022B/C/D BOND PURCHASE AGREEMENT]

EXHIBIT A

\$100,000,000
 DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
 Public Utility Subordinate Lien Revenue Bonds,
 Series 2022B (Green Bonds)

Serial Bonds

Year (Oct. 1)	Principal Amount	Interest Rate	Yield*
20__	\$000	____%	%
20__	000	____%	%
20__	000	____%	%

2022B Term Bonds

\$00,000,000 __% Term Bonds, due October 1, 20__, Yield ____%*

\$00,000,000 __% Term Bonds, due October 1, 20__, Yield ____%*

 *Priced to the par call date.

\$120,000,000
 DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
 Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds,
 Subseries 2022C-1

Serial Bonds

Year (Oct. 1)	Principal Amount	Interest Rate	Yield
202_	\$000	%	%
202_	000	%	%
203_	000	%	%
203_	000	%	%
203_	000	%	%
203_	000	%	%*
203_	000	%	%*
203-	000	%	%*
203_	000	%	%*
203_	000	%	%*
203_	000	%	%*
203_	000	%	%*
203_	000	%	%*

*Priced to the par call date.

TERMS OF REDEMPTION

Optional Redemption

The Series 2022__ Bonds are subject to optional redemption prior to maturity on or after October 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.

The Series 2022_ Bonds are subject to optional redemption prior to maturity on or after October 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 SINKING FUND REDEMPTION

The Series 2022_ Term Bonds maturing on October 1, 20__ shall be subject to mandatory sinking fund redemption, on October 1 of that respective year, as follows:

<u>Year</u>	<u>Principal Amount</u>
20__	\$
20__	
20__	
20__	
20__*	

*Final maturity.

The Series 2022_ Term Bonds maturing on October 1, 20__ shall be subject to mandatory sinking fund redemption, on October 1 of that respective year, as follows:

<u>Year</u>	<u>Principal Amount</u>
20__	\$
20__	
20__	
20__	
20__*	

*Final maturity.

\$80,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D
(Federally Taxable)

[to come]

EXHIBIT B

FORM OF AUTHORITY'S CHIEF LEGAL OFFICER AND EXECUTIVE VICE
PRESIDENT, LEGAL AFFAIRS OPINION

March , 2022

District of Columbia Water and Sewer Authority
1385 Canal Street S.E.
Washington, DC 20003

\$100,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds)

\$120,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C

\$80,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D
(Federally Taxable)

Ladies and Gentlemen:

I am the Chief Legal Officer and Executive Vice President, Legal Affairs to the District of Columbia Water and Sewer Authority (the "Authority") and in connection with the issuance by the Authority of its Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds), in the original principal amount of \$100,000,000 (the "Series 2022B Bonds") and its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C, in the original principal amount of \$120,000,000 (the "Series 2022C Bonds") and its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable), in the original principal amount of \$80,000,000 (the "Series 2022D Bonds" and collectively with the Series 2022B Bonds and the Series 2022C Bonds, the "Bonds"). I have reviewed an executed copy of the Bond Purchase Agreement, dated _____, 2022, between the Authority and Goldman Sachs & Co. LLC, as Representative on behalf of the Underwriters, with respect to the Bonds, other than the Subseries 2022C-2 Bonds, (the "Bond Purchase Agreement") and the Preliminary Official Statement, dated _____, 2022 (the "Preliminary Official Statement") and the Official Statement, dated _____, 2022, being distributed in connection with the issuance of the Bonds (collectively, the "Official Statement"). Capitalized terms used and not defined herein shall have the respective meanings given to such terms in the Bond Purchase Agreement.

I have also examined an act of the Council of the District of Columbia entitled the "Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of

1996,” codified, as amended, at District of Columbia Official Code Ann. Sections 34-2201.01 *et seq.*, and the acts amendatory thereof and supplemental thereto (the “Act”), and an act of the United States Congress entitled the “District of Columbia Water and Sewer Authority Act of 1996” (Public Law 104-184), as amended (the “Federal Act”), certified copies of proceedings of the Authority authorizing the issuance of the Bonds, including the Resolution and such other proceedings as I have considered necessary or advisable to render the following opinions.

In rendering the following opinions, I have relied on representations of the Authority as to matters of fact without independent investigation or verification and, as to matters of law, the representations of Co-Bond Counsel without independent research or verification and have assumed the genuineness of all signatures, the authenticity of all documents tendered to me as originals and the conformity to original documents of all documents submitted to me as certified or photostatic copies.

Based upon review of the materials described above and subject to the recitals and qualifications herein contained, to the best of my knowledge, information and belief, it is my opinion that:

1. The Authority is a body corporate duly created, organized and validly existing as an independent authority of the District under the Act and under the Federal Act (the Act and the Federal Act being sometimes hereinafter referred to as, the “Acts”). The Authority has the full legal right, power and authority to (i) adopt the Resolution, (ii) issue the Bonds, (iii) execute, deliver and perform its obligations under the Bond Documents, and (iv) perform its obligations under the System Agreements.

2. The Federal Act was duly enacted by Congress and the Act was duly enacted by the Council of the District of Columbia. The Acts remain in full force and effect. The Act transferred all assets and liabilities of the Water and Sewer Utility Administration (“WASUA”) as indicated on the balance sheet prepared by WASUA, effective April 17, 1996, on an interim basis for the exclusive use and possession of the Authority for so long as any revenue bonds of the Authority, including the Bonds, remain outstanding.

3. The Resolution was adopted by the Authority and has not been amended since the date of the adoption thereof and remains in full force and effect as of the date hereof.

4. (i) The adoption of the Resolution, the issuance of the Bonds, the execution and delivery of the Bond Documents and the performance of the Authority’s obligations thereunder, and (ii) the performance of the Authority’s obligations under the System Agreements, under the circumstances contemplated thereby, do not and will not in any material respect conflict with or constitute on the part of the Authority, a breach of or default under any agreement or other instrument to which the Authority is a party, or any existing law, administrative regulation, court order, settlement order or consent decree to which the Authority is subject.

5. Except as otherwise described in the Preliminary Official Statement and the Official Statement, there is no action, suit, proceeding, inquiry or investigation, at law or in equity, before or by any court, government agency, public board or body, pending or, to the best

of my knowledge, threatened against the Authority (i) seeking to prohibit, restrain or enjoin the issuance, sale or delivery of the Bonds, the use of the Official Statement or the collection of the revenues pledged to the payment of the principal of and interest on the Bonds, (ii) in any way contesting or affecting any authority for the issuance of the Bonds or the validity, enforceability, due authorization, execution or delivery of the Bonds, including the Bond Purchase Agreement or the other Bond Documents, or the validity or enforceability of the System Agreements, (iii) questioning the tax-exempt status of the Series 2022B Bonds or the Series 2022C Bonds under the laws of the United States or the tax-exempt status of the Bonds under the laws of the District, (iv) in any way contesting the corporate existence or powers of the Authority or the titles of the officers of the Authority to their respective offices, (v) which may result in any material adverse change in the business or the financial condition or the financial prospects of the Authority or (vi) asserting that the Preliminary Official Statement or the Official Statement contains any untrue statement of a material fact or omits any material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

6. The statements and information contained in the Preliminary Official Statement and the Official Statement under the caption entitled "LITIGATION," are true, correct and complete in all material respects, and the information under such caption does not contain any untrue statement of a material fact and does not omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading in any material respect.

7. Pursuant to the Acts, the Authority has the full legal right, power and authority to operate the System and to collect and pledge the Revenues therefrom in accordance with the Indenture.

8. The Authority has approved the form of the Preliminary Official Statement and the Official Statement, the execution of the Official Statement and the delivery of the Official Statement to the purchasers of the Bonds.

9. The Authority has obtained the consents, approvals, authorizations or other orders required for the consummation of the transactions contemplated by the Bond Purchase Agreement, including the issuance of the Bonds.

This opinion and all documents which relate to this opinion are to be construed in accordance with the laws of the District and the United States of America. This opinion is rendered solely for the use of the Authority and may not be relied on by any other person.

Very truly yours,

Chief Legal Officer and Executive Vice President Legal Affairs

EXHIBIT C

FORM OF OPINION OF UNDERWRITERS' COUNSEL

March , 2022

\$100,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds)

\$120,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C

\$80,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D
(Federally Taxable)

Goldman Sachs & Co. LLC, as Representative
200 West Street
New York, NY 10282

Ladies and Gentlemen:

We have acted as counsel for you as the representative (the "Representative") acting on behalf of yourself and other underwriters (the "Underwriters") in connection with your purchase from the District of Columbia Water and Sewer Authority (the "Authority") of its Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds), in the original principal amount of \$100,000,000 (the "Series 2022B Bonds"), and its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C, in the original principal amount of \$120,000,000 (the "Series 2022C Bonds") and its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable), in the original principal amount of \$80,000,000 (the "Series 2022D Bonds" and collectively with the Series 2022B Bonds and the Series 2022C Bonds, the "Bonds"), pursuant to the Bond Purchase Agreement, dated _____, 2022 (the "Purchase Agreement"), between you and the Authority. The Bonds are to be 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 Bonds (the "Indenture"), including by the Thirtieth Supplemental Indenture of Trust and the Thirty-First Supplemental Indenture of Trust, each to be dated the date of issuance and delivery of the Bonds (the "Supplemental Indentures"), each by and between the Authority and Computershare Trust Company, N.A., as trustee (the "Trustee"). The proceeds of the Series 2022B Bonds will be used to pay (i) a portion of the costs of the Authority's DC Clean Rivers Project, and (ii) pay costs of issuing the Series 2022B Bonds. The proceeds of the Series 2022C Bonds will be used to (i) pay the costs of certain capital improvements to the System, (ii) refund certain outstanding Commercial Paper of the Authority, (iii) refund and discharge the Target 2014 Bonds tendered for purchase and

accepted by the Authority pursuant to the Invitation, and (iv) pay the costs of issuing the Series 2022C Bonds. The proceeds of the Series 2022D Bonds will be used to (i) pay a portion of the Authority's share of the Washington Aqueduct's capital improvements and a portion of the costs of certain capital improvements to the System and (ii) pay the costs of issuing the Series 2022D Bonds. Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Purchase Agreement.

In that connection, we have reviewed the Indenture, the Preliminary Official Statement of the Authority dated _____, 2022 (the "Preliminary Official Statement") and the Official Statement of the Authority, dated _____, 2022, with respect to the Bonds (the "Official Statement"), the Continuing Disclosure Agreement, dated _____, 2022 (the "Continuing Disclosure Agreement"), the Purchase Agreement, certificates of the Authority, the Trustee and others, the opinions referred to in paragraph 10(f)(vi) of the Purchase Agreement, and such records and documents, and we have made such investigations of law, as we have deemed appropriate as a basis for the opinions and conclusions hereinafter expressed. We do not assume any responsibility for any electronic version of the Official Statement and assume that any such version is identical in all material respects to the printed version.

In arriving at the opinions and conclusions hereinafter expressed, we are not expressing any opinion or view on, and with your permission are assuming and relying on, the validity, accuracy and sufficiency of the records, documents, certificates and opinions referred to above, including the accuracy of all factual matters represented and legal conclusions contained therein, including (without limitation) any representations and legal conclusions regarding the due authorization, issuance, delivery, validity and enforceability of the Bonds, and any laws, documents and instruments that may be related to the issuance, payment or security of the Bonds. We have assumed that all records, documents, certificates and opinions that we have reviewed, and the signatures thereto, are genuine.

Based on and subject to the foregoing, and in reliance thereon, as of the date hereof, we are of the following opinions or conclusions:

1. The Bonds are not subject to the registration requirements of the Securities Act of 1933, as amended, and the Indenture is exempt from qualification pursuant to the Trust Indenture Act of 1939, as amended.

2. We are not passing upon and do not assume any responsibility for the accuracy, completeness or fairness of any of the statements contained in the Preliminary Official Statement and the Official Statement and make no representation that we have independently verified the accuracy, completeness or fairness of any such statements. In our capacity as your counsel, to assist you with your responsibility with respect to the Preliminary Official Statement and the Official Statement, we participated in conferences with your representatives and representatives of the Authority, Squire Patton Boggs (US) LLP and Bellamy Penn LLP, as co-bond counsel and as co-disclosure counsel, financial advisors, feasibility consultants and others, during which the contents of the Official Statement and related matters were discussed. Based on our participation in the above-mentioned conferences (which did not extend beyond the date of the Official Statement), and in reliance thereon, on oral and written statements and representations of the Authority and others and on the records, documents, certificates, opinions and matters herein

mentioned (as set forth above), we advise you as a matter of fact and not opinion that, during the course of our representation of you on this matter, no facts came to the attention of the attorneys in our firm rendering legal services to you in connection with the Preliminary Official Statement and the Official Statement which caused us to believe that the Preliminary Official Statement and the Official Statement as of their dates and as of the date hereof (except for any CUSIP numbers, financial, accounting, statistical or economic, engineering or demographic data or forecasts, numbers, charts, tables, graphs, estimates, projections, assumptions or expressions of opinion, any information about litigation to which the Authority is a party, any management discussion and analysis, Appendices to the Preliminary Official Statement and the Official Statement, or any information about book-entry, DTC, ratings, rating agencies, and tax exemption of the Bonds, which we expressly exclude from the scope of this paragraph and as to which we express no opinion or view) contained or contains any untrue statement of a material fact or omitted or omits to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. No responsibility is undertaken or view expressed with respect to any other disclosure document, materials or activity, or as to any information from another document or source referred to by or incorporated by reference in the Preliminary Official Statement and the Official Statement.

3. In our opinion, the Continuing Disclosure Agreement with respect to the Bonds for the benefit of the holders thereof, satisfies in all material respects the requirements for such an agreement in paragraph (b) (5) of the Rule 15c2-12; provided that, for purposes of this opinion, we are not expressing any view regarding the content of the Official Statement that is not expressly stated in numbered paragraph 2 of this letter.

We are furnishing this letter to you pursuant to paragraph 11(f)(vi) of the Purchase Agreement solely for your benefit as the Representative. We disclaim any obligation to update this letter. This letter is not to be used, circulated, quoted or otherwise referred to or relied upon for any other purpose or by any other person. This letter is not intended to, and may not, be relied upon by owners of Bonds or by any other party to whom it is not specifically addressed.

Very truly yours,

EXHIBIT D

FORM OF UNDERWRITERS' CERTIFICATE

\$000,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds)

\$00,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C

UNDERWRITERS' CERTIFICATE

March , 2022

Goldman Sachs & Co. LLC ("Goldman Sachs"), for itself and as representative of the other underwriters for the bonds identified above (the "Issue"), issued by the District of Columbia Water and Sewer Authority (the "Issuer"), based on its knowledge regarding the sale of the Issue, certifies as of this date as follows:

1. Issue Price.

[If the issue price is determined using only the general rule (actual sales of at least 10%) in Regulations § 1.148-1(f)(2)(i) and at least 10% of each maturity has been sold as of the Closing Date:

1.1 As of the date of this certificate, for each Maturity of the Issue, the first price at which at least 10% of such Maturity of the Issue was sold to the Public is the respective price listed in the final Official Statement, dated _____, 2022 for the Issue (the "Sale Price" as applicable to respective Maturities). The aggregate of the Sale Prices of each Maturity is \$_____ (the "Issue Price").]

[If the issue price is determined using only the general rule (actual sales of at least 10%) in Regulations § 1.148-1(f)(2)(i) and at least 10% of each maturity has not been sold as of the Closing Date:

1.1 As of the date of this Certificate, for each [Maturity] [of the _____ Maturities] of the Issue, the first price at which at least 10% of [each] such Maturity of the Issue was sold to the Public (the "10% Test") are the respective prices listed in **Schedule A** attached hereto.

1.2 With respect to each of the _____ Maturities of the Issue:

(i) As of the date of this Certificate, the Underwriters have not sold at least 10% of these Maturities of the Issue at any single price.

(ii) As of the date of this Certificate, the Goldman Sachs reasonably expects that the price at which at least 10% of each of these Maturities of the Issue will be sold to the Public will be the respective price or prices listed on the attached **Schedule A** as the “Reasonably Expected Sale Prices for Undersold Maturities.”

(iii) Goldman Sachs will provide actual sales information (substantially similar to the information contained on **Schedule B**) as to the price at which at least 10% of each such Maturity (i.e., the Undersold Maturity or Maturities) of the Issue is sold to the Public.

(iv) On the date the 10% Test is satisfied with respect to all Maturities of the Issue, Goldman Sachs will execute a supplemental certificate substantially in the form attached hereto as **Schedule C** with respect to any Maturities for which the 10% Test has not been satisfied as of the Closing Date.**]

[If the issue price is determined using a combination of actual sales (Regulations § 1.148-1(f)(2)(i)) and hold-the-offering-price (Regulations § 1.148-1(f)(2)(ii)):

1.1 As of the date of this certificate, for each Maturity of the Issue listed on Schedule A as the “General Rule Maturities,” the first price at which at least 10% of such Maturity was sold to the Public is the respective price listed in Schedule A (the “Sale Price” as applicable to each Maturity of the General Rule Maturities).

1.2 The Underwriters offered the Maturities listed on Schedule A as the “Hold-the-Offering-Price Maturities” to the Public for purchase at the respective initial offering prices listed in Schedule A (the “Initial Offering Prices” as applicable to each Maturity of the Hold-the-Offering-Price Maturities) on or before the Sale Date. A copy of the pricing wire or equivalent communication for the Issue is attached to this certificate as Schedule B.

1.3 As set forth in the Bond Purchase Agreement dated _____, 2022, between the Authority and Underwriters, the Underwriters agreed in writing that, (i) for each Maturity of the Hold-the-Offering-Price Maturities, it would neither offer nor sell any of the Issue of such Maturity to any person at a price that is higher than the Initial Offering Price for such Maturity during the Holding Period for such Maturity (the “hold-the-offering-price rule”), and (ii) any selling group agreement contains the agreement of each dealer who is a member of the selling group, and any retail distribution agreement contains the agreement of each broker-dealer who is a party to the retail distribution agreement, to comply with the hold-the-offering-price rule. The Underwriters have not offered or sold any Maturity of the Hold-the-Offering-Price Maturities at a price that is higher than the respective Initial Offering Price for that Maturity of the Issue during the Holding Period.

The aggregate of the Sale Prices of the General Rule Maturities and the Initial Offering Prices of the Hold-the-Offering-Price Maturities is \$[_____] (the “Issue Price”).]

[If the issue price is determined using only the hold-the-offering-price rule in Regulations § 1.148-1(f)(2)(ii):

1.1 As set forth in the Bond Purchase Agreement dated _____, 2022, between the Authority and the Underwriters, the Underwriters agreed in writing that, (i) for each Maturity of the Issue, it would neither offer nor sell any of such Maturity of the Issue to any person at a price that is higher than the Initial Offering Price for such Maturity during the Holding Period for such Maturity (the “hold-the-offering-price rule”), and (ii) any selling group agreement contains the agreement of each dealer who is a member of the selling group, and any retail distribution agreement contains the agreement of each broker-dealer who is a party to the retail distribution agreement, to comply with the hold-the-offering-price rule. The Underwriters have not offered or sold any Maturity of the Issue at a price that is higher than the respective Initial Offering Price for that Maturity of the Issue during the Holding Period.]

[1.2, 1.3, 1.4, 1.2] Definitions. [NOTE: If issue price is determined using only the general rule (actual sales of 10%), delete the definitions of “Holding Period” and “Sale Date.”]

["Holding Period" means, for each Hold-the-Offering-Price Maturity of the Issue, the period starting on the Sale Date and ending on the earlier of (i) the close of the fifth business day after the Sale Date (_____, 2022), or (ii) the date on which the Underwriters sold at least 10% of such Maturity of the Issue to the Public at prices that are no higher than the Initial Offering Price for such Maturity.]

“Maturity” means bonds of the Issue with the same credit and payment terms. Bonds of the Issue with different maturity dates, or bonds of the Issue with the same maturity date but different stated interest rates, are treated as separate Maturities.

“Public” means any person (including an individual, trust, estate, partnership, association, company, or corporation) other than an Underwriter or a related party to an Underwriter. The term “related party” for purposes of this certificate generally means any two or more persons who have greater than 50 percent common ownership, directly or indirectly.

["Sale Date" means the first day on which there is a binding contract in writing for the sale of a Maturity of the Issue. The Sale Date of the Issue is _____, 2022.]

“Underwriter” means (i) any person that agrees pursuant to a written contract with the Authority (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the Issue to the Public, and (ii) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (i) of this paragraph to participate in the initial sale of the Issue to the Public (including a member of a selling group or a party to a retail distribution agreement participating in the initial sale of the Issue to the Public).

All capitalized terms not defined in this Certificate have the meaning set forth in the Authority's Tax Compliance Certificate or in Attachment A to it.

[2. Reserve Fund.

The funding of the Reserve Fund as provided in the Trust Agreement securing the Issue is reasonably required, was a vital factor in marketing the Issue, facilitated the marketing of the Issue at an interest rate comparable to that of bonds and other obligations of a similar type and is not in excess of the amount necessary for such purpose.]

[3. Yield.

3.1 The Yield on the Issue is _____%, being the discount rate that, when used in computing the present worth of all payments of principal and interest to be paid on the Issue, computed on the basis of a 360-day year and semi-annual compounding, produces an amount equal to the Issue Price of the Issue as stated in paragraph 1.1 [and computed with the adjustments stated in paragraphs 3.2 and 4.3].

3.2 Discount Bonds Subject to Mandatory Early Redemption. [No bond of the Issue that is subject to mandatory early redemption has a stated redemption price that exceeds the Initial Offering Price of such bond by more than one-fourth of 1% multiplied by the product of its stated redemption price at maturity and the number of years to its weighted average maturity date.] **[Or]** [The stated redemption price at maturity of the bonds of the Issue maturing in the year[s] 20__, which are the only bonds of the Issue that are subject to mandatory early redemption, exceeds the Initial Offering Price of such bonds by more than one-fourth of 1% multiplied by the product of the stated redemption price at maturity and the number of years to the weighted average maturity date of such bonds. Accordingly, in computing the Yield on the Issue stated in paragraph 3.1, those bonds were treated as redeemed on each mandatory early redemption date at their present value rather than at their stated principal amount.]

3.3 Premium Bonds Subject to Optional Redemption. No bond of the Issue:

- Is subject to optional redemption within five years of the Issuance Date of the Issue.
- That is subject to optional redemption has an Initial Offering Price that exceeds its stated redemption price at maturity by more than one-fourth of 1% multiplied by the product of its stated redemption price at maturity and the number of complete years to its first optional redemption date.]]

[4. Weighted Average Maturity.

The weighted average maturity (defined below) of the Issue is _____ years **[For refunding issues:** and the remaining weighted average maturity of the Refunded Bonds is _____ years. The weighted average maturity of an issue is equal to the sum of the products of the

Initial Offering Price of each maturity of the issue and the number of years to the maturity date of the respective maturity (taking into account mandatory but not optional redemptions), divided by the Initial Offering Price of the entire Issue.]

5. Underwriter's Discount. The Underwriter's discount is \$ _____, being the amount by which the aggregate Issue Price (as set forth in paragraph 1.1) exceeds the price paid by Goldman Sachs to the Authority for the Issue.

The signer is an officer of Goldman Sachs and duly authorized to execute and deliver this Certificate of the Underwriters for itself and as representative of the other Underwriters. Goldman Sachs understands that the certifications contained in this Certificate will be relied on by the Issuer in making certain of its representations in its Tax Compliance Certificate and in completing and filing the Information Return for the Issue, and by Squire Patton Boggs (US) LLP and Bellamy Penn LLP, as co-bond counsel ("Bond Counsel"), in rendering certain of their legal opinions in connection with the issuance of the Issue.

Goldman Sachs has performed these calculations with the express understanding and agreement of Bond Counsel and the Issuer that, notwithstanding the performance of these calculations and the delivery of this certificate: (i) in doing so we are not acting as Municipal Advisor (as defined in Section 15 of the Securities Exchange Act), (ii) we do not have a fiduciary duty to the Issuer, and (iii) we are not to be construed as a "paid preparer" of any tax returns of the Issuer, including specifically (but not limited to) Form 8038-G.

Notwithstanding the foregoing, Goldman Sachs reminds you that we are not accountants or actuaries, nor are we engaged in the practice of law. Accordingly, while we believe the calculations described above to be correct, we do not warrant them to be so, nor do we warrant their validity for purposes of Sections 103 and 141 through 150 of the Code.

The representations set forth in this certificate are limited to factual matters only. Nothing in this certificate represents Goldman Sachs's interpretation of any laws, including specifically Sections 103 and 148 of the Code and the Treasury Regulations thereunder.

Dated: _____, 2022

GOLDMAN SACHS & CO. LLC
BANK OF AMERICA SECURITIES LLC
RAMIEREZ & CO.
BARCLAYS CAPITAL
FTN FINANCIAL CAPITAL MARKETS
LOOP CAPITAL MARKETS LLC
MESIROW FINANCIAL
MORGAN STANLEY & CO., LLC
TD SECURITIES

By: GOLDMAN SACHS & CO. LLC,
as Representative of the Underwriters

[NOTE: If the general rule is used for each Maturity (i.e., actual sales of at least 10% of each Maturity) and at least 10% of each Maturity has been sold as of the Closing, there is no schedule

to attach if the initial offering prices set forth in the Official Statement for the Issue are the first prices at which at least 10% of each Maturity is sold. Otherwise, attach a schedule that shows the first price at which at least 10% of each Maturity was sold.]

[OR]

[If the issue price is determined using a combination of the general rule (actual sales) and hold-the-offering-price rule:

SCHEDULE A
SALE PRICES OF THE GENERAL RULE MATURITIES AND
INITIAL OFFERING PRICES OF THE HOLD-THE-OFFERING-PRICE MATURITIES
(Attached)

[**NOTE:** With respect to each Maturity of the Issue, Schedule A should include each Maturity's (i) maturity date, (ii) principal amount, (iii) coupon, (iv) yield, and (v) the sale prices/initial offering prices (as applicable).]

SCHEDULE B
PRICING WIRE OR EQUIVALENT COMMUNICATION
(Attached)

[OR]

[If the issue price is determined using only the hold-the-offering-price rule in Regulations § 1.148-1(f)(2)(ii):

SCHEDULE A
INITIAL OFFERING PRICES OF THE ISSUE
(Attached)

SCHEDULE B
PRICING WIRE OR EQUIVALENT COMMUNICATION
(Attached)

[OR]

If the issue price is determined using only the general rule (actual sales of at least 10%) in Regulations § 1.148-1(f)(2)(i) and at least 10% of each maturity has not been sold as of the Closing Date:

SCHEDULE A
TO
ISSUE PRICE CERTIFICATE

Actual Sales Information as of Closing Date

<u>Maturity/CUSIP</u>	<u>Coupon</u>	<u>Date Sold</u>	<u>Time Sold</u>	<u>Par Amount</u>	<u>Sale Price</u>
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]Reasonably Expected Sales Prices for Undersold Maturities as of Closing Date**

<u>Maturity/CUSIP</u>	<u>Coupon</u>	<u>Par Amount</u>	<u>Offering Prices</u>
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**]

[**SCHEDULE B
TO
ISSUE PRICE CERTIFICATE

Actual Sales for Undersold Maturities as of the Closing Date

<u>Maturity/CUSIP</u>	<u>Date Sold</u>	<u>Time Sold</u>	<u>Par Amount</u>	<u>Sale Price</u>
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**]

DEALER MANAGER AGREEMENT

Dated as of [_____], 2022

Goldman Sachs & Co. LLC,
as Dealer Manager
200 West Street
New York, New York 10282

Ladies and Gentlemen:

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY (the “Authority”) is an independent authority of the District of Columbia. On or after [_____], 2022, the Authority plans to commence a tender or exchange offer (the “Tender or Exchange Offer”) for some or all of its outstanding: (i) Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2014C, (ii) Public Utility Subordinate Lien Revenue Bonds, Series 2015A, and (iii) Public Utility Subordinate Lien Revenue Bonds, Series 2015B (collectively, the “Target Bonds”). The date upon which such Tender or Exchange Offer is commenced by the Authority is herein referred to as the “Launch Date.” The Tender or Exchange Offer shall be made upon the terms and subject to the conditions set forth in the Offer Material (as defined below) which the Authority has caused to be prepared and will furnish to the Dealer Manager on or prior to the Launch Date for use in connection with the Tender or Exchange Offer, including (a) an Invitation to Tender or Exchange Bonds dated the Launch Date (the “Invitation”) (to be attached hereto upon delivery by the Authority to the Dealer Manager as Attachment A), including the Preliminary Official Statement dated the Launch Date (the “Preliminary Official Statement”) relating to the Authority’s Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) (the “Series 2022B Bonds”), its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1 (the “Series 2022C-1 Bonds”), its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 (the “Series 2022C-2 Bonds”), and its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable), (the “Series 2022D Bonds” and collectively with the Series 2022B Bonds, the Series 2022C-1 Bonds and the Series 2022C-2 Bonds, the “Series 2022 Bonds”) attached to the Invitation as Appendix A, (b) the letter to holders of Target Bonds from the Authority (to be attached hereto upon delivery by the Authority to the Dealer Manager as Attachment B), (c) the letter to brokers, dealers, commercial banks, trust companies and nominees and the form of letter from any of them to their clients (to be attached hereto upon delivery by the Authority to the Dealer Manager as Attachment C) and (d) a press release relating to the Tender or Exchange Offer (to be attached hereto upon delivery by the Authority to the Dealer Manager as Attachment D) (the materials described in the preceding clauses (a) through (d) collectively, the “Offer Material”). The final Official Statement for the Series 2022 Bonds and any other offering materials and information relating to the Tender or Exchange Offer that the Authority may prepare or approve subsequent to the Launch Date shall be called “Additional Material.”

Series 2022C-2 Bonds shall be delivered in exchange for Target Bonds tendered for exchange pursuant to the Tender or Exchange Offer (such Series 2022C-2 Bonds issued in

exchange for Target Bonds, the “2022 Exchange Bonds”). The 2022 Exchange Bonds shall be as described in, and shall be issued and secured under the provisions of the laws of the United States of America and the District of Columbia (the “District”), including particularly, an act of the Council of the District entitled the “Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996,” as amended, codified at District of Columbia Official Code Ann. Sections 34-2201.01 *et seq.*, and the acts amendatory thereof and supplemental thereto (the “Act”), and an act of the United States Congress entitled the “District of Columbia Water and Sewer Authority Act of 1996” (Public Law 104-184), as amended (the “Federal Act”), and all proceedings necessary to authorize and provide for the issuance of the Bonds, including Resolution No.22-__ adopted by the Board of Directors of the Authority, on January 6, 2022 (the “Resolution”), and the Master Indenture of Trust, dated as of April 1, 1998 (the “Master Indenture”), between the Authority and Computershare Corporate Trust, N.A., as trustee (the “Trustee”), as amended and supplemented, including by the Thirtieth Supplemental Indenture of Trust, dated as of the Closing Date (as defined below) (the “Thirtieth Supplemental Indenture,” and together with the Master Indenture as previously amended and supplemented, the “Indenture”), between the Authority and the Trustee. The date on which Target Bonds are exchanged for 2022 Exchange Bonds or are purchased for cash purchase to the Tender or Exchange Offer is referred to herein as the “Settlement Date.”

1. Appointment of Dealer Manager.

(a) The Authority hereby appoints Goldman Sachs & Co. LLC as exclusive dealer manager (the “Dealer Manager”) in connection with the Tender or Exchange Offer and authorizes the Dealer Manager to act on its behalf in accordance with this agreement (this “Agreement”) and the terms of the Offer Material and Additional Material. The Dealer Manager hereby accepts such appointment. The Authority has prepared and approved the Offer Material and authorizes the Dealer Manager to use the Offer Material and Additional Material in connection with the Tender or Exchange Offer. The Dealer Manager agrees to furnish no written material to holders of Target Bonds in connection with the Tender or Exchange Offer other than the Offer Material and Additional Material. The Authority has engaged _____ as information agent and tender/exchange agent (the “Information Agent” and “Tender/Exchange Agent”), and authorizes and directs the Dealer Manager to communicate regularly with The Depository Trust Company (“DTC”) and the Information Agent and Tender/Exchange Agent as to the principal amount of Target Bonds that have been tendered for purchase and/or tendered for exchange pursuant to the Tender or Exchange Offer and such other matters in connection with the Tender or Exchange Offer as the Dealer Manager may reasonably request.

(b) [Reserved.]

(c) It is understood that nothing in this Agreement nor the nature of the Dealer Manager’s services shall be deemed to create a fiduciary or agency relationship between the Dealer Manager and the Authority.

2. Mailing of Offer Material.

The Authority, with the assistance of the Information Agent, shall cause to be delivered to each registered holder of any Target Bonds, to each participant in DTC appearing in the most

recent available DTC securities position listing as a holder of Target Bonds and to each Non-Objecting Beneficial Owner (“NOBO”) appearing in the most recent available NOBO list as an owner of Target Bonds (each such registered holder, participant or owner, a “Registered or Beneficial Owner”), as soon as practicable, by hand, by overnight courier, or by electronic means or by another means of expedited delivery, copies of appropriate Offer Material and Additional Material. Thereafter, to the extent practicable until the expiration of the Tender or Exchange Offer, the Authority shall use its best efforts to cause copies of such material to be sent to each person who becomes a Registered or Beneficial Owner of Target Bonds.

3. Solicitation of Tenders for Purchase or Exchanges.

(a) The Dealer Manager agrees to use its customary reasonable efforts to solicit tenders of Target Bonds for purchase or exchange pursuant to the Tender or Exchange Offer. The Dealer Manager agrees to perform those services as are customarily performed by investment banking institutions in connection with a tender or exchange offer of municipal securities of like nature, including soliciting tenders of Target Bonds for purchase or exchange pursuant to the Tender or Exchange Offer and communicating generally regarding the Tender or Exchange Offer with brokers, dealers, commercial banks, trust companies and other entities and persons, including Bondowners, Registered Owners and Participants. None of the Dealer Manager or its affiliates, or any partners, directors, officers, agents, employees or controlling persons (if any) of the Dealer Manager or any of its affiliates, shall have any liability to the Authority or any other person for any act or omission on the part of any securities broker or dealer (other than the Dealer Manager), commercial bank or trust company that solicits tenders of Target Bonds for purchase or exchange; and neither the Dealer Manager nor any of such persons or entities referred to above shall have any liability to the Authority or any person asserting claims on behalf of or in right of the Authority in connection with or as a result of either its engagement or any matter referred to in this Agreement except to the extent that such liability results from the Dealer Manager’s own gross negligence, willful misconduct or bad faith in performing the services that are the subject of this Agreement. In soliciting tenders of Target Bonds for purchase or exchange, no securities broker or dealer (other than the Dealer Manager), commercial bank or trust company shall be deemed to act as the agent of the Dealer Manager or the agent of the Authority; and the Dealer Manager shall not be deemed the agent of any other securities broker or dealer or of any commercial bank or trust company. The Authority shall have sole authority for the acceptance or rejection of any and all tenders of Target Bonds for purchase or exchange.

(b) The Authority agrees to furnish to the Dealer Manager as many copies as the Dealer Manager may reasonably request of the Offer Material and Additional Material in final form for use by the Dealer Manager in connection with the Tender or Exchange Offer. The Authority shall not use, file, amend or supplement the Offer Material, or prepare or approve any Additional Material for use in connection with the Tender or Exchange Offer or refer to the Dealer Manager in the Offer Material or Additional Material, as applicable, without the Dealer Manager’s consent (which consent shall not be unreasonably withheld or delayed by the Dealer Manager) and without first submitting copies of such Offer Material and Additional Material, as applicable, to the Dealer Manager a reasonable time prior to using, filing, publishing, amending or supplementing such Offer Material and Additional Material, as applicable. The Authority will not use or publish any material in connection with the Tender or Exchange Offer, or refer to the Dealer

Manager in any such material, without the Dealer Manager's consent, which consent shall not be unreasonably withheld.

(c) The Authority agrees to advise the Dealer Manager promptly of (i) the occurrence of any event which could cause the Authority to withdraw, rescind, terminate or modify the Tender or Exchange Offer, (ii) any proposal or requirement to amend or supplement any Offer Material or Additional Material, as applicable, (iii) any litigation or administrative action or claim with respect to the Tender or Exchange Offer, (iv) the occurrence or discovery of any event or circumstance which would cause the Offer Material or Additional Material (except for information regarding DTC and its book-entry only system, information under the caption "UNDERWRITING" in the Preliminary Official Statement, and CUSIP numbers, prices and yields for the Series 2022 Bonds) to contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading for purposes of the Tender or Exchange Offer, or (v) any other information relating to the Tender or Exchange Offer which the Dealer Manager may from time to time reasonably request. In the event that the Dealer Manager shall receive notice from the Authority of the occurrence of one of the events described in clauses (i) through (iv) of the preceding sentence, the Dealer Manager may terminate this Agreement with respect to itself by delivering prompt written notice of such termination to the Authority. The Authority hereby acknowledges, subject to Section 4 hereof, the Dealer Manager's right to terminate this Agreement in accordance with this Section without loss of any right of the Dealer Manager to the payment of all fees and expenses payable hereunder which have accrued or have been incurred to date of such termination.

(d) The Dealer Manager will periodically consult with the Authority with respect to the status of the Tender or Exchange Offer, based on the most recent available information available from DTC and the Information Agent and Tender/Exchange Agent. The Dealer Manager agrees to use such information only in connection with the Tender or Exchange Offer and not to furnish such information to any other person except in connection with the Tender or Exchange Offer. The Dealer Manager shall notify the Information Agent and Tender/Exchange Agent of the Authority's request that the Information Agent and Tender/Exchange Agent orally inform the Dealer Manager during each business day during the Tender or Exchange Offer (to be followed on a daily basis by written confirmation) as to the principal amount of Target Bonds which have been tendered for purchase or exchange pursuant to the Tender or Exchange Offer during the interval since its previous daily report under this provision, and the names and addresses of any registered holder tendering \$50,000 or more aggregate principal amount of Target Bonds.

(e) [Reserved.]

4. Compensation and Expenses.

(a) The Authority shall pay to the Dealer Manager, as compensation for the Dealer Manager's services as Dealer Manager, a fee of \$___ for each \$1,000 principal amount of Target Bonds exchanged pursuant to the Tender or Exchange Offer, and a fee of \$___ per \$1,000 principal amount of Target Bonds purchased for cash pursuant to the Tender or Exchange Offer. Such fee shall be payable concurrently with the payment for or delivery of Target Bonds under the

Tender or Exchange Offer. Such fee shall only be payable by the Authority to the Dealer Manager upon issuance of the Series 2022 Bonds.

(b) Whether or not any Target Bonds are tendered for purchase or exchanged pursuant to the Tender or Exchange Offer, the Authority shall pay all expenses of the preparation, printing, mailing and publishing of the Offer Material and Additional Material, all fees payable to securities dealers (including the Dealer Manager), commercial banks, trust companies and nominees as reimbursement of their customary mailing and handling expenses incurred in forwarding the Offer Material and Additional Material to their customers, all fees and expenses of DTC, the Trustee under the Indenture and any information agent and tender/exchange agent, all advertising charges, any applicable transfer taxes payable in connection with the Tender or Exchange Offer and all other expenses in connection with the Tender or Exchange Offer and shall reimburse the Dealer Manager for all expenses incurred by the Dealer Manager in connection with the Dealer Manager's services under this Agreement, including, without limitation, the fees and the disbursements of the Dealer Manager's counsel; provided, however, that the total amount of all such reasonable out-of-pocket expenses to be reimbursed by the Authority to the Dealer Manager including fee and disbursements of counsel shall not exceed _____ Dollars (\$_____) without the prior consent of the Authority, such consent not to be unreasonably withheld. The Dealer Manager, upon the Authority's request, will deliver reasonable back-up documentation for the expenses to be reimbursed pursuant to this paragraph to the extent such documentation is available. For purposes of this Agreement, the term "out-of-pocket expenses" shall also include reasonable expenses relating to document production, graphics, word processing, delivery, communications, and other similar expenses that may not be directly payable to third party vendors.

5. Representations and Warranties by the Authority.

The Authority represents and warrants to, and agrees with, the Dealer Manager that:

(a) The Authority is a duly organized and validly existing corporate body and independent authority of the District established under the laws of the United States and the District, including the Act and the Federal Act.

(b) The Authority has the requisite power and authority and has duly taken all necessary action to authorize the making and consummation of the Tender or Exchange Offer (including authorizing any related borrowings or other provisions for the payment by the Authority for Target Bonds tendered for purchase and for the issuance and delivery by the Authority of the 2022 Exchange Bonds in exchange for Target Bonds tendered for exchange, the execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby; and this Agreement has been duly executed and delivered by, and constitutes a valid and binding Agreement of, the Authority, enforceable in accordance with its terms, subject, as to enforcement, to bankruptcy, insolvency, reorganization and other laws of general applicability relating to or affecting creditors' rights and to general equity principles.

(c) [Reserved.]

(d) The Offer Material and Additional Material comply and (as amended or supplemented, if amended or supplemented) will comply in all material respects with all applicable requirements of the federal securities laws; and the Offer Material and Additional Material do not and (as amended or supplemented, if amended or supplemented) will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading.

(e) The making and consummation of the Tender or Exchange Offer (including any related borrowings or other provisions for the payment by the Authority for Target Bonds tendered for purchase or for the issuance and delivery by the Authority of 2022 Exchange Bonds in exchange for Target Bonds tendered for exchange), the execution, delivery and performance by the Authority of this Agreement and the consummation of the transactions contemplated hereby are not in conflict with and will not constitute a breach, default or result in a violation of (i) the Act, (ii) any federal constitutional or federal or District statutory provision, including the Federal Act, (iii) any agreement or other instrument to which the Authority is a party, or (iv) any order, rule, regulation, decree or ordinance of any court of competent jurisdiction, government or governmental authority having jurisdiction over the Authority or its property.

(f) No consent, approval, authorization or order of, or registration, qualification or filing with, any court or regulatory agency or other governmental agency or instrumentality is required in connection with the making and consummation of the Tender or Exchange Offer (including any related borrowings or other provisions for the payment by the Authority for Target Bonds tendered for purchase or for the issuance and delivery by the Authority of the 2022 Exchange Bonds in exchange for Target Bonds tendered for exchange), the execution, delivery and performance of this Agreement or the consummation of the transactions contemplated hereby.

(g) Subject to the successful sale and closing of the Series 2022 Bonds, the Authority has or will have available funds, and is authorized to use such funds under applicable law, to pay the full purchase price of the Target Bonds tendered for purchase that it may become committed to purchase pursuant to the Tender or Exchange Offer and all related fees and expenses, and will have available for delivery, and is authorized to issue and deliver the 2022 Exchange Bonds in exchange for Target Bonds that it may become committed to exchange pursuant to the Tender or Exchange Offer; and such 2022 Exchange Bonds when issued, authenticated and delivered in exchange for Target Bonds will be valid and legally enforceable obligations of the Authority in accordance with their terms and the terms of the Indenture.

(h) Subject to the successful sale and closing of the Series 2022 Bonds, the Authority agrees, in accordance with the terms and subject to the conditions of the Offer Material and Additional Material or any Bond Exchange Agreement, as applicable, to pay promptly the full purchase price of the Target Bonds it has committed to purchase and all related fees and expenses, and to cause the delivery to tendering Bondowners of the 2022 Exchange Bonds to be delivered in exchange for Target Bonds tendered for exchange and to pay all related fees and expenses.

(i) The representations and warranties of the Authority with respect to the Series 2022 Bonds set forth in any Purchase Contract executed by the Authority with the

underwriters of Series 2022 Bonds to be sold in a public offering thereof (the “Purchase Contact”) are hereby incorporated into this Agreement and made to the Dealer Manager with respect to the 2022 Exchange Bonds.

(j) The Authority has made appropriate arrangements with DTC to allow for the book-entry movement of tendered Target Bonds between depository participants and the depository referred to above.

6. Representations and Warranties of the Dealer Manager.

The Dealer Manager hereby represents and warrants to, and agrees with, the Authority that:

(a) This Agreement has been duly authorized, executed and delivered by the Dealer Manager and constitutes its legal, valid and binding obligation, enforceable in accordance with its terms, except as enforcement may be limited by bankruptcy, insolvency, reorganization and similar laws affecting creditors’ rights and by general principles of equity.

(b) To the best knowledge of the Dealer Manager, after reasonable investigation, execution, delivery and performance of this Agreement by the Dealer Manager does not violate, in any material respect, any law, regulation or rule applicable to the Dealer Manager when acting in such capacity for transactions of this type.

(c) The Dealer Manager shall assist the Authority in disseminating the Offer Material and any Additional Material, but will not have any obligation to cause copies thereof to be transmitted generally to Bondowners, Registered Owners or Participants.

7. Conditions of Obligation.

The obligation of the Dealer Manager hereunder shall at all times be subject, in the Dealer Manager’s discretion, to the conditions that:

(a) All representations, warranties and other statements of the Authority contained herein are now, and at all times during the Tender or Exchange Offer and at the time of execution of any Bond Exchange Agreement and at all times at or prior to the Settlement Date, will be, true and correct.

(b) The Authority at all times during the Tender or Exchange Offer and at the time of execution of any Bond Exchange Agreement and at all times at or prior to the Settlement Date shall have performed all of its obligations hereunder theretofore required to have been performed.

(c) The Executive Vice President Legal Affairs, of the Authority, shall furnish to the Dealer Manager within three business days of the Launch Date, one or more opinions, dated the date thereof, that will be substantially to the effect set forth in Exhibit I hereto.

(d) At or prior to the Settlement Date, the Dealer Manager shall have received the opinions of Orrick, Herrington & Sutcliffe LLP and McKenzie & Associates, co-counsel to the Dealer Manager, to the effect that the Invitation, and the actions of the Authority in connection

with the Tender or Exchange Offer as specifically set forth in the Offer Material, are exempt from the provisions of Section 14(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), Regulation 14D and 14E of the Securities and Exchange Commission and the related rules promulgated thereunder.

8. Delivery of Documents.

On the Settlement Date, the Authority shall furnish to the Dealer Manager, with respect to any 2022 Exchange Bonds delivered by the Authority: (i) the approving opinion, dated the Settlement Date and addressed to the Authority, of Squire Patton Boggs (US) LLP and Bellamy Penn LLP, in their capacity as co-Bond Counsel, in substantially the form included as Appendix F to the Preliminary Official Statement; and (ii) the legal opinions, certificates, instruments and other documents delivered under the Purchase Contract to the underwriters for the publicly offered Series 2022 Bonds issued concurrently with such 2022 Exchange Bonds, or, in the event that a Purchase Contract is not then executed, in the forms set forth in the form of the Purchase Contract approved by the Authority.

9. Miscellaneous.

(a) This Agreement is made solely for the benefit of the Dealer Manager and the Authority and any partner, director, officer, agent, employee, controlling person or affiliate, and their respective successors, assigns, and legal representatives; and no other person shall acquire or have any right under or by virtue of this Agreement.

(b) In the event that any provision hereof shall be determined to be invalid or unenforceable in any respect, such determination shall not affect such provision in any other respect or any other provision hereof, which shall remain in full force and effect.

(c) Except as otherwise expressly provided in this Agreement, whenever notice is required by the provisions of this Agreement to be given to (i) the Authority, such notice shall be in writing addressed to the Authority at 1385 Canal Street S.E., Washington, DC 20003, facsimile number (202) _____, Attention: Matthew T. Brown, Chief Financial Officer and Executive Vice President Finance and Procurement; and (ii) the Dealer Manager, such notice shall be in writing addressed to Goldman Sachs & Co. LLC, at 200 West Street, New York, NY 10282, Attention: Freda Wang, Managing Director, E-mail: Freda.Wang@gs.com.

(d) This Agreement contains the entire understanding of the parties with respect to Goldman Sachs & Co. LLC acting as Dealer Manager for the Tender or Exchange Offer, superseding any prior agreements with respect thereto and may not be modified or amended except in writing executed by the parties hereto. This Agreement may be executed in any number of separate counterparts, each of which shall be an original, but all such counterparts shall together constitute one and the same agreement.

(e) THIS AGREEMENT AND ANY MATTERS RELATED TO THIS TRANSACTION SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE DISTRICT OF COLUMBIA WITHOUT REGARD TO PRINCIPLES OF CONFLICT OF LAWS THAT WOULD RESULT IN THE APPLICATION OF ANY LAW OTHER THAN THE LAWS OF THE DISTRICT OF COLUMBIA. The Authority and the Dealer

Manager agree, to the fullest extent permitted by applicable law, to waive any right to trial by jury with respect to any action or proceeding arising in connection with or as a result of either the engagement of the Dealer Manager as Dealer Manager hereunder or any matter referred to in this Agreement.

(f) The Dealer Manager is not acting as a Municipal Advisor (as defined in Section 15B of the Exchange Act), and shall not have a fiduciary duty, to the Authority in connection with the issuance of the Series 2022 Bonds, the Tender or Exchange Offer. The Authority has consulted its municipal advisor to the extent it deems appropriate in connection with the issuance of the Authority's Series 2022 Bonds and the Tender or Exchange Offer.

(g) The Dealer Manager does not provide accounting, tax or legal advice. The Authority is authorized, subject to applicable law, to disclose any and all aspects of this potential transaction that are necessary to support any U.S. federal income tax benefits expected to be claimed with respect to such transaction, without the Dealer Manager imposing any limitation of any kind.

(h) This Agreement shall terminate upon the earlier of (i) the 10th day following the expiration, withdrawal or termination of the Tender or Exchange Offer, (ii) the close of business on the day of actual receipt of written notice by the Dealer Manager from the Authority stating that this Agreement is terminated, (iii) the close of business on the date of actual receipt of written notice by the Authority from the Dealer Manager stating that this Agreement is terminated, (iv) the time and date on which this Agreement shall be terminated by mutual consent of the parties hereto, or (v) 90 days from the date first written above, it being understood that (1) such termination shall not be deemed to terminate any of the rights or obligations of the Dealer Manager or the Authority previously accrued under this Agreement and (2) the last of Section 3(c), Section 3(e), and Sections 4, 5, 6 and 9(a) through (g) hereof will survive any termination of this Agreement.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK.]

Please sign and return to us a duplicate of this letter, whereupon it will become a binding agreement.

Very truly yours,

**DISTRICT OF COLUMBIA WATER AND
SEWER AUTHORITY**

By: _____

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

The undersigned hereby confirms that the foregoing letter, as of the date thereof, correctly sets forth the agreement between the Authority and the undersigned.

GOLDMAN SACHS & CO. LLC

By: _____

Title: _____

EXHIBIT I
FORM OF OPINION

_____, 202_

Goldman Sachs & Co. LLC,
as Dealer Manager
200 West Street
New York, New York 10282

Ladies and Gentlemen:

I am the Executive Vice President, Legal Affairs to the District of Columbia Water and Sewer Authority (the “Authority”). The Authority plans to commence a Tender or Exchange offer for some or all of its outstanding: (i) Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2014C, (ii) Public Utility Subordinate Lien Revenue Bonds, Series 2015A, and (iii) Public Utility Subordinate Lien Revenue Bonds, Series 2015B (collectively, the “Target Bonds”), upon the terms and subject to the conditions set forth in the Dealer Manager Agreement referred to below. Terms used herein and defined in such Dealer Manager Agreement are used herein as so defined.

In that connection, we have examined the Preliminary Official Statement relating to the Authority’s Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds), its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1, its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2, and its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable) (the “Preliminary Official Statement”), a signed copy of the agreement, dated as of [_____], 2022, between the Authority and you providing for your services as Dealer Manager for the Tender or Exchange Offer (the “Dealer Manager Agreement”).

I have also examined an act of the Council of the District of Columbia entitled the “Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996,” codified, as amended, at District of Columbia Official Code Ann. Sections 34-2201.01 *et seq.*, and the acts amendatory thereof and supplemental thereto (the “Act”), and an act of the United States Congress entitled the “District of Columbia Water and Sewer Authority Act of 1996” (Public Law 104-184), as amended (the “Federal Act”), certified copies of proceedings of the Authority authorizing the issuance of the Bonds, including the Resolution and such other proceedings as I have considered necessary or advisable for the purpose of this opinion and advise you as follows:

(1) The Authority is a body corporate duly created, organized and validly existing as an independent authority of the District under the Act and under the Federal Act (the Act and the Federal Act being sometimes hereinafter referred to as, the “Acts”).

Exhibit I, page 1

(2) The Authority has the requisite power and authority and has duly taken all necessary action to authorize the making and consummation of the Tender or Exchange Offer, the delivery and performance of the Dealer Manager Agreement; and the Dealer Manager Agreement has been duly executed and delivered by, and constitutes a valid and binding agreement of, the Authority, enforceable in accordance with its terms, subject, as to enforcement, to bankruptcy, insolvency, reorganization and other laws of general applicability relating to or affecting creditors' rights and to general equity principles.

(3) We are not passing upon and do not assume any responsibility for the accuracy, completeness or fairness of any of the statements contained in the Preliminary Official Statement and make no representation that we have independently verified the accuracy, completeness or fairness of any such statements. During the course of acting as counsel to the Authority in connection with the making and consummation of the Tender or Exchange Offer, no information came to the attention of the attorneys in our firm rendering legal services in connection with such Tender or Exchange Offer which caused us to believe that the Preliminary Official Statement as of the date hereof (except for any financial or statistical data or forecasts, numbers, charts, estimates, projections, assumptions or expressions of opinion or the Appendices included therein, the information relating to DTC and the book-entry system as to which we express no opinion or view), contains any untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(4) The making and consummation of the Tender or Exchange Offer (including any related borrowings or other provisions for the payment for or exchange of Bonds by the Authority), and the execution, delivery and performance by the Authority of the Dealer Manager Agreement do not and will not in any material respect conflict with or constitute on the part of the Authority, a breach of or default under any agreement or other instrument to which the Authority is a party, or any existing law, administrative regulation, court order, settlement order or consent decree to which the Authority is subject.

(5) To the best of our knowledge (after reasonable investigation), no consent, approval, authorization or order of, or registration, qualification or filing with, any court or regulatory agency or other governmental agency or instrumentality is required in connection with the making and consummation of the Tender or Exchange Offer (including any related borrowings or other provisions for the payment for Bonds by the Authority), and the execution, delivery or performance of the Dealer Manager Agreement (except that no opinion is expressed with respect to the application of Blue Sky or federal securities laws).

Very truly yours,

Executive Vice President Legal Affairs

ATTACHMENT A

*(Invitation to Tender or Exchange Bonds to be attached,
including Preliminary Official Statement as Appendix thereto)*

ATTACHMENT B

(Letter to Bondholders to be attached)

ATTACHMENT C

(Letter to Brokers, Dealers and Others to be attached)

ATTACHMENT D

(Press Release to be attached)

DRAFT 12-30-21

ESCROW AGREEMENT

Among

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

COMPUTERSHARE TRUST COMPANY, N.A.
As Trustee

and

COMPUTERSHARE TRUST COMPANY, N.A.
as Escrow Agent

with respect to

\$000,000,000
Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds
Series 2022D
(Federally Taxable)

Dated: _____, 2022

ESCROW AGREEMENT

This ESCROW AGREEMENT is made and entered into as of _____, 2022 between the District of Columbia Water and Sewer Authority (the “Authority”) and Computershare Trust Company, N.A., a national banking association, having a corporate trust office in [Minneapolis, Minnesota], as the trustee (in such capacity, the “Trustee”), and as the escrow agent (in such capacity, the “Escrow Agent”).

WITNESSETH:

WHEREAS, the Authority has heretofore duly issued, pursuant to a Master Indenture of Trust, dated as of April 1, 1998 (the “Master Indenture”), as supplemented and amended through the Seventeenth Supplemental Indenture of Trust, dated November 20, 2014, its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2014C (the “Series 2014C Bonds”), of which \$000,000,000 is currently outstanding; and

WHEREAS, the Authority has decided to issue its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable) issued in an aggregate principal amount of \$000,000,000, pursuant to the Master Indenture, as previously amended and supplemented and as further supplemented by the Thirty-First Supplemental Indenture of Trust, dated _____, 2022, by and between the Authority and the Trustee (the “Thirty-First Supplemental Indenture” and, together with the Master Indenture, as previously amended and supplemented, the “Indenture”); and

WHEREAS, a portion of the proceeds of the Series 2022D Bonds, together with other funds of the Authority, will be used to purchase, on behalf of and for the account of the Authority, escrow securities in the par amount, at the yield and with the maturity set forth in **Appendix C** attached hereto (the “Escrow Securities”) which, along with cash, shall be deposited in the Series 2022D Escrow Account established pursuant to the Thirty-First Supplemental Indenture; and

WHEREAS, the cash and the Escrow Securities deposited into the Series 2022D Escrow Account, together with investment income thereon, will provide sufficient funds to (i) pay interest on the Series 2014C Bonds* identified in **Appendix A** (the “Refunded Bonds”) prior to October 1, 2024 as specified in **Appendix B**; (ii) redeem the Refunded Bonds on October 1, 2024 (collectively, the payments set forth in **Appendix B** are referred to as the “Refunded Bond Payments”); and

WHEREAS, the Authority is entering into this Escrow Agreement with the Escrow Agent simultaneously with the delivery of the Series 2022D Bonds in order to insure that the required procedures will be followed to make the Refunded Bond Payments; and

WHEREAS, the Authority has taken action to cause to be delivered to the Escrow Agent for deposit in or credit to the Series 2022D Escrow Account immediately available funds from the proceeds of the Series 2022D Bonds and other funds of the Authority, which will be used to purchase the Escrow Securities and which, together with the investment earnings thereon and

* Preliminary subject to change. If any of the Authority’s Series 2015A Bonds or Series 2015B Bonds are included in the advance refunding, the provisions will be updated to reflect that.

certain uninvested cash, will be sufficient to make the Refunded Bond Payments, and to have the mathematical accuracy of the computations relating to the sufficiency of such Series 2022D Escrow Account moneys to be verified by _____ (the “Verification Agent”).

NOW, THEREFORE, the Authority, the Trustee and the Escrow Agent hereby agree as follows:

Section 1. Funding and Maintenance of the Series 2022D Escrow Account.

(a) The Authority hereby directs the Trustee to transfer to the Escrow Agent \$000,000,000.00 of the proceeds of the Series 2022D Bonds and \$0,000,000.00 from the Series 2014C Subordinate Bonds Interest Subaccount in the Subordinate Interest Account for deposit into the Series 2022D Escrow Account.

(b) The Escrow Agent hereby acknowledges the receipt and deposit in the Series 2022D Escrow Account of an amount equal to \$000,000,000.00 in immediately available funds.

(c) Until all principal of, premium, if any, and interest on the Refunded Bonds have been paid in full, the Escrow Agent shall maintain the Series 2022D Escrow Account as a special segregated and irrevocable escrow account. The Series 2022D Escrow Account shall be for the benefit of the holders of the Refunded Bonds. All securities, investments and moneys held therein shall be wholly segregated from all other securities, investments or moneys on deposit with the Escrow Agent, if any. All securities, investments and moneys held in the Series 2022D Escrow Account shall be irrevocably pledged to secure the payment of the principal of, premium, if any, and interest on the Refunded Bonds.

Section 2. Investment of the Series 2022D Escrow Account.

(a) The Escrow Agent represents and acknowledges that, concurrently with the deposit of the amounts into the Series 2022D Escrow Account as described in Section 1 hereof, it shall apply \$000,000,000.00 of such funds to purchase, on behalf of and for the account of the Authority, the Escrow Securities as shown on **Appendix C**. The remaining deposit of \$000.00 shall be held in cash. The Escrow Securities shall be non-callable prior to the date upon which such securities shall be needed to pay the applicable Refunded Bond Payment. The Escrow Securities may be sold, transferred, disposed of or redeemed only at the direction of the Authority, as set forth in subsection (d) hereof, and shall mature on or before the time the proceeds thereof will be required for the payment of the applicable Refunded Bond Payment.

(b) Any amounts received from the Escrow Securities or held in cash referenced in clause (a) above that are not needed at the time of receipt to make the aforesaid payments on the Refunded Bonds shall remain in trust for the benefit of the holders of the Refunded Bonds, uninvested, until applied as aforesaid; provided, that such amounts shall be applied to the purchase of Substitute Obligations (as defined in Section 2(d)(ii) hereof), and the interest thereon shall be applied in such manner, as may be specified in writing by the Authority, but only if the Escrow Agent receives (i) the certificate of an independent public accountant described in Section 2(d)(ii)(A) hereof with respect to such purchase of Substitute Obligations and such application of the interest thereon, and (ii) an approving opinion of Bond Counsel to the effect that such use of

funds will not adversely affect the exclusion from gross income for federal income tax purposes of interest on the Refunded Bonds.

(c) The Series 2022D Escrow Account shall be maintained to and including the date upon which the Escrow Agent makes the final payment of the principal of, premium, if any, and interest on the Refunded Bonds, whereupon the Escrow Agent shall, upon the written direction of the Authority, sell or redeem any Escrow Securities remaining in the Series 2022D Escrow Account and shall deliver to the Authority any money received from such sales and any money then remaining in the Series 2022D Escrow Account.

Based on the report, dated _____, 2022, prepared by the Verification Agent (the "Verification Report"), a copy of which is attached as **Appendix D** hereto, which verifies the mathematical accuracy of the computations prepared by PFM Financial Advisors LLC and confirms the calculations of PFM Financial Advisors LLC that the Escrow Securities, together with the investment earnings thereon and certain uninvested cash on deposit in the Series 2022D Escrow Account will be sufficient to make the Refunded Bond Payments as specified in **Appendix B**, the Authority represents that the Escrow Securities and certain uninvested cash on deposit in the Series 2022D Escrow Account, together with interest thereon, will be sufficient to (i) pay interest on the Refunded Bonds prior to October 1, 2024; and (ii) redeem the Refunded Bonds on October 1, 2024. The Escrow Agent shall not be liable or responsible (y) for the accuracy of the Verification Report or (z) the accuracy of the calculations of PFM Financial Advisors LLC with respect to required deposits into the Series 2022D Escrow Account.

(d)(i) Except as otherwise provided in this Section 2, the Escrow Agent shall have no power or duty to invest any funds held under this Escrow Agreement or to sell, redeem, transfer or otherwise dispose of or make substitutions of the Escrow Securities. Subject to the provisions of subsection (b), any funds held in the Series 2022D Escrow Account that are not invested shall be held in cash.

(ii) At the request of the Authority and upon compliance with the conditions contained herein, the Escrow Agent shall sell, transfer or otherwise dispose of or request the redemption of all or a portion of the Escrow Securities, and shall substitute for such Escrow Securities, direct non-callable obligations of the United States of America (the "Substitute Obligations"), whereupon, references in this Escrow Agreement to Escrow Securities shall include any such Substitute Obligations. The Authority hereby covenants and agrees that it will not request the Escrow Agent to exercise any of the powers described in this Section in any manner which would adversely affect the exclusion from gross income for Federal income tax purposes of interest on the Refunded Bonds. The Escrow Agent shall purchase such Substitute Obligations with the proceeds derived from the sale, transfer, disposition or redemption of such Escrow Securities. The transaction may be effected only if the Authority delivers to the Escrow Agent:

(A) a report of nationally recognized independent certified public accountants which verifies the mathematical accuracy of the computations which reflect the principal amount of such Substitute Obligations, together with the interest income to be received thereon, will be sufficient to make timely payments on the Refunded Bonds;

(B) a certificate of the Authority that, based on such verification report prepared by independent certified public accountants, the amount deposited in the Series 2022D Escrow Account will be sufficient to pay the Refunded Bond Payments as specified in **Appendix B**;

(C) a certificate of the Trustee acknowledging the deposit of moneys and the receipt of the verification report described in (A) above as to the sufficiency of the Substitute Obligations to make the Refunded Bond Payments; and

(D) an opinion of Bond Counsel to the effect that the sale, transfer, disposition or redemption of the Escrow Securities and purchase of such Substitute Obligations (i) will not affect the exclusion from gross income for Federal income tax purposes of interest on the Refunded Bonds, and (ii) is permitted hereunder.

The Escrow Agent shall not be liable or responsible for any loss resulting from any investment or reinvestment made pursuant to this subsection unless such loss is due to the gross negligence or willful misconduct of the Escrow Agent.

(e) The Escrow Agent shall have no liability for the payment of the principal of, premium, if any, and interest on the Refunded Bonds, except from the Escrow Securities and moneys on deposit in the Series 2022D Escrow Account.

Section 3. Payment and Redemption of the Refunded Bonds. The Authority hereby requests and irrevocably instructs the Escrow Agent, and the Escrow Agent hereby agrees, to collect and deposit in the Series 2022D Escrow Account the principal of and interest on the Escrow Securities held for the account of the Series 2022D Escrow Account as promptly as such principal and interest becomes due, and to apply such principal and interest, together with any other moneys and the principal of and interest on any other securities deposited in the Series 2022D Escrow Account to pay the Refunded Bond Payments specified in **Appendix B**.

Section 4. Defeasance and Redemption Notices.

(a) The Authority hereby requests and irrevocably instructs the Trustee and the Trustee hereby agrees to promptly provide notice by first class mail to the Municipal Securities Rulemaking Board (“MSRB”), Standard & Poor’s, a division of The McGraw-Hill Companies, Inc. (“S&P”), Moody’s Investor Service, Inc. (“Moody’s”) and Fitch Ratings, Inc. (“Fitch”) of the advanced refunding of the Refunded Bonds and the deposit of the Escrow Securities and any money in escrow for that purpose. A form of the defeasance notice for each of the Refunded Bonds is attached as **Appendix E** hereto.

(b) The Authority hereby requests and irrevocably instructs the Trustee and the Trustee hereby agrees to provide notice of redemption of the Refunded Bonds not less than thirty (30) days nor more than sixty (60) days prior to October 1, 2024, in the form of the notice attached hereto as **Appendix F**, by registered or certified-mail or overnight express delivery, to (a) the registered owner of each the Refunded Bonds at the address as it appears on the registration books kept by the Trustee and (b) MSRB.

(c) To the extent permitted by the bond documents pertaining to the Refunded Bonds, any of the notices provided in this Section 4 may be provided by means of facsimile transmission, email transmission or other similar electronic means of communications providing evidence of transmission.

Section 5. Possible Deficiencies.

(a) If at any time the Escrow Agent has actual knowledge that the moneys in the Series 2022D Escrow Account, including the anticipated proceeds of the Escrow Securities, will not be sufficient to make all payments required by Section 3 hereof, the Escrow Agent shall notify the Authority in writing as soon as is reasonably practicable of the amount of such deficiency and the reason therefor, if the reason is known to the Escrow Agent.

(b) The Escrow Agent shall in no manner be responsible for the Authority's failure to address any such deficiency.

Section 6. Duties of Escrow Agent. So long as the Refunded Bonds are outstanding, the Escrow Agent shall forward a monthly statement to the Authority describing the Escrow Securities held, including the income earned thereon and the maturities thereof, and any withdrawals of moneys from the Series 2022D Escrow Account since the last statement furnished pursuant to this Section.

Section 7. Fees and Costs.

(a) The Escrow Agent shall be compensated, based on itemized invoices submitted to the Authority, for its reasonable fees, expenses and disbursements incurred with respect to service rendered hereunder.

(b) The Escrow Agent also shall be entitled to additional fees and reimbursements for costs incurred, including, but not limited to, legal and accountants' services, in connection with any litigation which may at any time be instituted involving this Escrow Agreement.

(c) The right to receive compensation notwithstanding, the Escrow Agent acknowledges that it, as Escrow Agent, has no claim for any such payment under the Indenture and that it has no lien on the moneys on deposit in the Series 2022D Escrow Account for such payment.

(d) In the event of the resignation of the Escrow Agent prior to the expiration of this Escrow Agreement, the Escrow Agent shall rebate to the Authority a ratable portion of any fee theretofore paid by the Authority to the Escrow Agent for its services under this Escrow Agreement.

(e) The provisions of this Section 7 shall survive the termination of this Agreement and the resignation or removal of the Escrow Agent.

Section 8. Resignation of Escrow Agent. The Escrow Agent may resign and be discharged of its duties hereunder provided that: (i) the Authority has received written notice at least thirty (30) days prior to such resignation; (ii) the Authority has appointed a successor to the

resigning party; (iii) the Authority has received an instrument of acceptance in form and substance acceptable to it, executed by the successor; and (iv) the resigning party has duly delivered to its successor hereunder all of the escrow documents including the Indenture and this Escrow Agreement, the Escrow Securities, and moneys and investments held by the resigning party. Such resignation shall take effect only upon the occurrence of all of the events listed in clauses (i) through (iv) above. Upon receipt by the Authority of the written notice described in clause (i) above, the Authority shall use its best efforts to obtain a successor to such resigning party as soon as possible. Notwithstanding the foregoing, if the Authority fails to appoint a successor within thirty (30) days, the Escrow Agent reserves the right to petition a court of competent jurisdiction to appoint a successor.

Section 9. Termination of Escrow Agreement. This Escrow Agreement shall terminate when the principal of, premium, if any, and interest on the Refunded Bonds have been paid in full; provided, that moneys held by the Escrow Agent for the payment and discharge of any of the Refunded Bonds which remain unclaimed five (5) years after the date when all of such Refunded Bonds shall have become due and payable, either at their stated maturity dates or by call for earlier redemption, shall at the written request of the Authority, be repaid by the Escrow Agent to the Authority, as its absolute property, free from the lien created by the Indenture. The Escrow Agent shall thereupon be released and discharged with respect thereto and hereto and the holders of such Refunded Bonds shall look only to the Authority for the payment of such Refunded Bonds.

Section 10. Benefit of Agreement; Amendments.

(a) This Agreement is made for the benefit of the Authority and the holders from time to time of the Refunded Bonds except as otherwise expressly provided herein.

(b) This Agreement shall not be repealed, revoked, rescinded, altered, amended or supplemented in whole or in part without the written consent of the Escrow Agent and the holders of the unpaid Refunded Bonds; provided, however, that upon prior written notice to Moody's, Fitch and S&P and (1) receipt by each such agency of draft copies of any such proposed amendment, and (2) receipt from each such agency of the notice that such amendment shall not adversely affect its rating on the Refunded Bonds, the Authority and the Escrow Agent may, without the consent of, or notice to, such holders, enter into such amendment to this Agreement that will not adversely affect the rights of such holders and that will not be inconsistent with the terms and provisions of this Agreement (the "Amendment"), for any one or more of the following purposes:

(i) to correct or cure any ambiguity or formal defect or omission in this Agreement;

(ii) to grant to, or confer upon, the Escrow Agent for the benefit of such holders any additional rights, remedies, powers or authority that may lawfully be granted to, or conferred upon, such holders or the Escrow Agent;

(iii) to subject to this Agreement additional funds, securities or property; and

(iv) to sever any invalid provision from this Agreement.

(c) The Escrow Agent shall not undertake or execute any Amendment unless it has received:

(i) If the Amendment affects the aggregate amount or payment terms of the Escrow Securities, an opinion of an independent certified public accountant reasonably acceptable to the Authority that after such Amendment the interest on and maturing principal of the Escrow Securities, without further reinvestment, and any other funds then held pursuant to this Agreement will provide moneys in amounts and at times as necessary to pay all principal of and redemption premium and interest on the Refunded Bonds as the same are due or are called for redemption as set forth in Section 2; and

(ii) An opinion of Bond Counsel that the Amendment (A) will not affect the exclusion from gross income for Federal income tax purposes of interest on the Refunded Bonds, (B) is in compliance with the Internal Revenue Code of 1986, as amended, and (C) the Amendment complies with the requirements of this Section 10.

(d) The Authority shall provide Moody's, Fitch and S&P with written notice prior to such time as this Agreement shall be replaced, revoked, rescinded, altered, amended or supplemented at the following addresses:

Moody's Investors Service, Inc.
Public Finance Rating Desk/Refunded Bonds
7 World Trade Center
250 Greenwich Street, 23rd Floor
New York, NY 10007

Standard & Poor's, a division of The McGraw-Hill Companies, Inc.
25 Broadway, 21st Floor
New York, New York 10004

Fitch Ratings
300 West 57th Street
New York, New York 10004

Section 11. Notices. Any notice, authorization, request or demand required or permitted to be given hereunder shall be in writing and shall be deemed to have been duly given when mailed by registered or certified mail, postage prepaid, addressed as follows:

If to the Authority, at:

District of Columbia Water and Sewer Authority
1385 Canal Street, S.E.
Washington, DC 20003
Attn: Chief Financial Officer and Executive Vice
President, Finance and Procurement

If to the Escrow Agent, at:

Computershare Trust Company, N.A.
600 S 4th Street, 7th floor
Minneapolis, MN 55415
Attn: _____

Any of such addresses may be changed at any time upon written notice of such change being sent by United States registered mail, postage prepaid, to the other parties by the party affecting the change. Any notices to the holders of the Refunded Bonds shall be made in a manner as prescribed in the Indenture.

Section 12. Time of Performance. Whenever, under the terms of this Escrow Agreement, the performance date of any act to be done hereunder shall fall on a day which is not a legal banking day or upon which the Escrow Agent is not open for business, the performance thereof on the next succeeding business day shall be deemed to be in full compliance with this Escrow Agreement. The Escrow Agent shall perform all obligations imposed upon it under this Escrow Agreement in a timely manner.

Section 13. Reliance by Escrow Agent; Force Majeure; No Special, Indirect or Consequential Damages.

(a) The Escrow Agent shall be entitled to rely and act upon any notice, resolution, request, consent, order, certificate, report, opinion, bond or other paper or document reasonably believed by it to be genuine and to have been signed and presented by the proper party or parties. The Escrow Agent may consult with Bond Counsel, or, in the discretion of the Escrow Agent, it may consult with its own counsel as to anything arising in connection with the duties herein undertaken, and it shall not be liable for any action taken or omitted by it in good faith in reasonable reliance upon such written instructions or upon the written opinions of such counsel; provided, however, that before relying upon the opinion of its own counsel it shall furnish to the Authority and to Bond Counsel a copy of such opinion.

(b) In no event shall the Escrow Agent be liable for any failure or delay in the performance of its obligations hereunder because of circumstances beyond the Escrow Agent's control, including, but not limited to, acts of God, flood, war (whether declared or undeclared), terrorism, fire, riot, strikes or work stoppages for any reason, embargo, government action, including any laws, ordinances, regulations or the like which restrict or prohibit the providing of the services contemplated by this Agreement, inability to obtain material, equipment, or communications or computer facilities, or the failure of equipment or interruption of communications or computer facilities, and other causes beyond the Escrow Agent's control whether or not of the same class or kind as specifically named above.

(c) Anything in this Agreement to the contrary notwithstanding, in no event shall the Escrow Agent be liable for special, indirect or consequential loss or damage of any kind whatsoever (including but not limited to lost profits), even if the Escrow Agent has been advised of the likelihood of such loss or damage and regardless of the form of action.

Section 14. Governing Law. To the fullest extent permitted by law, this Escrow Agreement shall be interpreted, construed and enforced pursuant to the laws of the District.

Section 15. Severability. If any provision of this Escrow Agreement shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such provision shall not affect any of the remaining provisions of this Escrow Agreement. The Escrow Agent shall provide Moody's, Fitch and S&P with written notice, at the addresses set forth in Section 10, if any provision of this Escrow Agreement should be held to be invalid or unenforceable.

Section 16. Execution of Counterparts. This Escrow Agreement may be executed in any number of counterparts each of which shall for all purposes be deemed to be an original and all of which shall together constitute but one and the same instrument.

Section 17. Successors of the Escrow Agent. Any corporation or association into which the Escrow Agent may be converted or merged or with which it may be consolidated or to which it may sell or transfer its corporate trust business and assets as a whole or substantially as a whole, or any corporation or association resulting from any such conversion, sale, merger, consolidation or transfer to which it is a party, ipso facto shall be and become the successor Escrow Agent hereunder, vested and subject to all duties and obligations imposed hereunder with all of the trusts, powers, discretions, immunities, privileges and all other matters as was its predecessor, without the execution or filing of any instrument or any further act, deed or conveyance on the part of any of the parties hereto, anything herein to the contrary notwithstanding; provided, that the Escrow Agent shall promptly give notice of such conversion, sale, merger, consolidation or transfer to the Authority, and the Authority shall have 45 days to exercise an option to appoint a successor Escrow Agent by an instrument in writing delivered to the then current Escrow Agent.

IN WITNESS WHEREOF, the parties hereto have caused this Escrow Agreement to be executed each on its behalf as of the day and year first above written.

**DISTRICT OF COLUMBIA WATER
AND SEWER AUTHORITY**

By: _____
Matthew T. Brown
Chief Financial Officer and Executive Vice
President, Finance and Procurement

**COMPUTERSHARE TRUST COMPANY, N.A.,
AS ESCROW AGENT**

By: _____
Name: _____
Title: _____

APPENDIX A

LISTING OF REFUNDED BONDS

Series 2014C Bonds

Maturity (October 1)	Principal Amount	Interest Rate	CUSIP

APPENDIX B

REFUNDED BOND PAYMENTS

Date	Interest	Redeemed Principal	Total

APPENDIX C

DESCRIPTION OF THE ESCROW SECURITIES

Type of Security	CUSIP or ID	Maturity Date	Par Amount	Interest Rate	Price	Cost	Accrued Interest	Total Cost
Totals								

APPENDIX D

VERIFICATION REPORT

APPENDIX E

FORM OF DEFEASANCE NOTICE

APPENDIX F

FORM OF REDEMPTION NOTICE

Presented and Adopted: January 6, 2022

Subject: Approving the Final Form of Certain Documents,
Authorizing the Sale and Setting Terms and Details
of the Series 2022E Bonds

#22-01
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 January 6, 2022, 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 Computershare Trust Company, N.A., as trustee (the “Trustee”) (its predecessors in that capacity having been Norwest Bank Minnesota, N.A., Wells Fargo Bank Minnesota, N.A. and Wells Fargo Bank, 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-nine (29) 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 further intends to enter into the Thirtieth Supplemental Indenture in connection with the issuance of the Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) and Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C and the Thirty-First Supplemental Indenture in connection with the issuance of the Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022D (Federally Taxable); and

WHEREAS, the Authority now also intends: (i) to issue Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E (the “Series 2022E Bonds”) to: (a) finance

certain Costs of the System; (b) fund a Series 2022E Debt Service Reserve Requirement, (as defined herein), if determined necessary; and (c) pay certain costs of issuance of the Series 2022E Bonds; (ii) to designate the Series 2022E Bonds as Subordinate Debt for purposes of the Indenture; and (iii) to secure the Series 2022E Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, the CEO and General Manager, the Chief Financial Officer and Executive Vice President, Finance and Procurement, the Chief Engineer and the Chief Legal Officer and Executive Vice President, Legal Affairs 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 December 14, 2021, to review the issuance of the Series 2022E 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 Thirty-Second 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, the Chief Financial Officer and Executive Vice President, Finance and Procurement, 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 for the Series 2022E Bonds between the Authority and the 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 2022E Bonds to the Original Purchasers and specifying terms of the Series 2022E 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 2022E 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 Sustainable Capital Advisors.

“Interest Payment Dates” means the “Interest Payment Date” as defined for the Series 2022E Bonds in the Thirty-Second Supplemental Indenture.

“Original Purchasers” for the Series 2022E Bonds means the purchasers identified as such in the Bond Purchase Agreement.

“Remarketing Agent” means any Remarketing Agent designated for the Series 2022E Bonds under the Thirty-Second Supplemental Indenture. RBC Capital Markets, LLC is the initial Remarketing Agent.

“Remarketing Agreement” means any Remarketing Agreement entered into for the Series 2022E Bonds under the Thirty-Second Supplemental Indenture.

“Series 2022E Debt Service Reserve Requirement” means, if determined in the Certificate of Award to be necessary, a required fund balance in the Series 2022E Debt Service Reserve Account or Accounts established under the Thirty-Second 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 2022E Debt Service Reserve Account in the amount of the specified required fund balance will not cause the interest on any Series 2022E Bonds intended to be excluded from gross income for federal income tax purposes not to be so excluded.

“Tender Agent” means any Tender Agent designated for the Series 2022E Bonds under the Thirty-Second Supplemental Indenture. The Trustee is the initial Tender Agent.

“Thirty-Second Supplemental Indenture” means the Thirty-Second Supplemental Indenture of Trust by and between the Authority and the Trustee, dated as of the same date as and relating to the Series 2022E 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 2022E 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) One Hundred Million Dollars (\$100,000,000) aggregate principal amount of Series 2022E Bonds. The Series 2022E Bonds shall be designated "Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E" and shall constitute Subordinate Debt for purposes of the Indenture, for the purpose of: (a) financing certain Costs of the System; (b) funding a Series 2022E Debt Service Reserve Requirement, if determined necessary in the Certificate of Award; and (c) paying issuance costs of the Series 2022E Bonds. For those purposes the proceeds from the sale of the Series 2022E Bonds shall be allocated and deposited, as provided in the Thirty-Second Supplemental Indenture. If and to the extent that any Series 2022E Bonds are issued for the purpose of funding a Series 2022E Debt Service Reserve Requirement, then the aggregate principal amount of Series 2022E Bonds hereby authorized may exceed \$100,000,000 by the aggregate principal amount of the Series 2022E 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 2022E Bonds.

(a) Form, Transfer and Exchange. The Series 2022E Bonds: (i) shall initially be issued only in fully registered form and substantially in the form attached as Exhibit A to the Thirty-Second 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 Thirty-Second Supplemental Indenture.

(b) Denominations and Dates. The Series 2022E Bonds shall be dated as of the date of issuance and delivery, but in no event later than September 30, 2022, and there shall be a single Series E Bond for each maturity of the Series 2022E Bonds bearing the same series or subseries designation as provided in the Thirty-Second Supplemental Indenture.

(c) Principal Maturities. The principal of the Series 2022E 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 Certificates of Award, provided that the final principal retirement date shall be no later than December 31, 2062.

(d) Interest Rates and Interest Rate Periods for the Series 2022E Bonds. The Series 2022E Bonds shall initially be issued as Long-Term Rate Bonds. The initial interest rate for the Series 2022E Bonds will be the rate that the Original Purchasers determine is necessary to sell the Series 2022E Bonds at a minimum price of ninety-eight percent (98%) of the principal amount of the Series 2022E Bonds and subject to the Maximum Rate. The Series 2022E Bonds initially may be issued in multiple subseries, as determined in the Certificate of Award. The provisions of Section 403 of the Thirty-Second Supplemental Indenture shall govern the interest rates per annum and payment terms of the Series 2022E Bonds. After the Initial Period, the Series 2022E Bonds may bear interest at Daily Rates, Weekly Rates, Short-Term Rates, Index Rates or Fixed Rates, or may continue to bear interest at Long-Term Rates, all determined in accordance

with the Thirty-Second Supplemental Indenture, and shall be subject to conversion between Interest Rate Periods on the terms, in the manner, and subject to the conditions set forth in the Indenture.

(e) Tender, Purchase, Remarketing and Optional Redemption. For the purpose of effecting the provisions of the Thirty-Second Supplemental Indenture relating to the tender, purchase and remarketing of the Series 2022E Bonds, the Authority shall appoint or engage the Tender Agent and Remarketing Agent at the times, in the manner, and subject to the conditions set forth in the Thirty-Second Supplemental Indenture. The Series 2022E Bonds shall be subject to redemption prior to stated maturity as and to the extent provided in the Thirty-Second Supplemental Indenture and shall be subject from time to time to optional and mandatory tender for purchase as provided in the Thirty-Second Supplemental Indenture.

(f) Places and Manner of Payment. The principal and tender price of and the interest and any redemption premium on the Series 2022E Bonds shall be payable as specified in the Thirty-Second Supplemental Indenture.

(g) Execution. The Authorized Officials are, and each of them is, authorized and directed to execute the Series 2022E Bonds, and the Secretary of the Board is authorized and directed to affix the seal of the Authority to the Series 2022E Bonds and to deliver them to the Trustee for authentication in accordance with the Indenture.

Section 4. Sale of Series 2022E Bonds.

(a) General. The Series 2022E Bonds shall be awarded and sold to the 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 2022E Bonds times the percentage of such principal amount at which such Series 2022E 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 2022E 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 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 2022E Bonds and the sale thereof, all as provided in this Resolution, the Bond Purchase Agreement, the Certificate of Award and the Thirty-Second 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 2022E Bonds approved in the Certificate of Award shall be incorporated into the Thirty-Second Supplemental Indenture. The Certificate of Award, subject to the restrictions set forth herein, shall: (i) state, with respect to the Series 2022E Bonds, the aggregate principal amount, the purchase price, the first Interest Payment Dates, the principal retirement dates, the mandatory sinking fund requirements (if any), the mandatory tender date (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 any of the Series 2022E Bonds and, if so, from whom and on what terms; (iii) specify the amount, if any, of the Series 2022E 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. A separate Certificate of Award may be delivered for each subseries of the Series 2022E Bonds, and each reference in this Resolution to the Certificate of Award shall refer to each and all such Certificates of Award. A separate Bond Purchase Agreement, and Continuing Disclosure Agreement may be entered into for each subseries of the Series 2022E Bonds, 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.

(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 any of the Series 2022E 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 2022E 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 2022E 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 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 Original Purchasers to establish the date, location, procedure and conditions for the delivery of the Series 2022E Bonds to the 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 2022E Bonds, and the execution, authentication and delivery of the Series 2022E Bonds to DTC for the accounts of the 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 2022E Bonds; Tax Covenants.

(a) Allocation of Proceeds of the Series 2022E Bonds. The proceeds from the sale of the Series 2022E Bonds shall be allocated, deposited and credited for the purposes approved in this Resolution and as specified in the Thirty-Second 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 2022E Bonds.

Section 6. Thirty-Second Supplemental Indenture and Other Documents. The Authorized Officials are, and each of them is, authorized in connection with the issuance of the Series 2022E Bonds, to execute, acknowledge and deliver in the name of and on behalf of the Authority, the Thirty-Second Supplemental Indenture and the Remarketing Agreement with the initial Remarketing Agent, 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 2022E 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 Thirty-Second Supplemental Indenture, the Bond Purchase Agreement and this Resolution.

Following the issuance of the Series 2022E Bonds, if a successor Remarketing Agent is appointed by the Authority, the Authorized Officials are, and each of them is, authorized to execute, acknowledge and deliver, in the name of and on behalf of the Authority, the Remarketing Agreement with the successor Remarketing Agent in a form then determined by the Authorized Officer executing the document on behalf of the Authority to be consistent with the Indenture and this Resolution. The determination of such consistency shall be conclusively evidenced by the execution of the document by an Authorized Official.

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 2022E 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 2022E 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 Original Purchasers for distribution to prospective purchasers of the Series 2022E 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 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 Original Purchasers to sell book entry interests in the Series 2022E 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 Original Purchasers as may be reasonably requested to qualify the Series 2022E 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 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 Original Purchasers and to specify the final principal amount, interest rates and redemption provisions of the Series 2022E Bonds, the price of the Series 2022E Bonds to the general public, any credit enhancement provisions with respect to the Series 2022E Bonds and any change in ratings of the Series 2022E 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 2022E 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 2022E Bonds may, and the Trustee may (and, at the request of the Holders of at least 25% in aggregate principal amount of Outstanding Series 2022E 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 Original Purchasers of the Series 2022E Bonds a true and certified transcript of all proceedings relating to the authorization and issuance of the Series 2022E Bonds along with other information as is necessary or proper with respect to the Series 2022E Bonds.

This Resolution is effective immediately.

Secretary to the Board of Directors

THIRTY-SECOND SUPPLEMENTAL INDENTURE OF TRUST

between

**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

and

**COMPUTERSHARE TRUST COMPANY, N.A.
AS TRUSTEE**

Dated _____, 2022

THIS THIRTY-SECOND SUPPLEMENTAL INDENTURE OF TRUST dated the ___ day of _____, 2022 (as defined in more detail below, the “**Thirty-Second Supplemental Indenture**”), by and between the District of Columbia Water and Sewer Authority (the “**Authority**”), an independent authority of the District of Columbia (the “**District**”), and Computershare Trust Company, N.A., a national banking association, having a corporate trust office in Philadelphia, Pennsylvania, as trustee (in such capacity, together with any successor in such capacity, herein called the “**Trustee**”), provides:

WHEREAS, the Authority and the Trustee (its predecessor in that capacity having been Norwest Bank, N.A.) entered into the Master Indenture of Trust, dated as of April 1, 1998 (the “**Master Indenture**” and, as previously supplemented and amended by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture, the Twenty-Ninth Supplemental Indenture, the Thirtieth Supplemental Indenture and the Thirty-first Supplemental Indenture, all as hereinafter defined, and as it may further be supplemented and amended in accordance with its terms, 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 defined in the Master Indenture); and

WHEREAS, pursuant to the First Supplemental Indenture of Trust, dated as of April 1, 1998 (the “**First Supplemental Indenture**”), between the Authority and the Trustee, the Authority issued its \$266,120,000 Public Utility Revenue Bonds, Series 1998, dated as of April 1, 1998 (the “**Series 1998 Senior Lien Bonds**”), to finance Costs of the System (as defined in the Master Indenture) and to refund then outstanding debt of the Authority; and

WHEREAS, the Master Indenture permits the Authority, for certain purposes and subject to certain conditions, to issue Other System Indebtedness (as defined therein) secured on a parity with the Series 1998 Senior Lien Bonds and referred to collectively with the Series 1998 Senior Lien Bonds as “Senior Debt,” and also permits the Authority to issue Subordinate Debt (as defined therein), which has pledged to its payment Net Revenues as a subordinate lien pledge after the pledge of Net Revenues to Senior Debt; and

WHEREAS, pursuant to the Second Supplemental Indenture of Trust, dated as of November 1, 2001 (the “**Second Supplemental Indenture**”), between the Authority and the Trustee, the Authority amended and supplemented the Master Indenture in accordance with its terms to clarify provisions thereof related to certain forms of Indebtedness (as defined in the

Master Indenture, i.e., Senior Debt and Subordinate Debt) and thereby facilitate the issuance of such forms of Indebtedness; and

WHEREAS, pursuant to the Third Supplemental Indenture of Trust, dated as of November 1, 2001 (the “**Third Supplemental Indenture**”), between the Authority and the Trustee, the Authority (i) issued its Commercial Paper Notes defined therein as the Series A-B Notes, (ii) designated the Series A-B Notes as Subordinate Debt for purposes of the Indenture, and (iii) made provision for the securing of the Series A-B Notes and of the Reimbursement Obligations to the Bank that provided the Letters of Credit (all as defined therein) that secure the Series A-B Notes; and

WHEREAS, pursuant to the Fourth Supplemental Indenture of Trust, dated August 12, 2003: (the “**Fourth Supplemental Indenture**”), between the Authority and the Trustee, the Authority (i) issued its Public Utility Subordinated Lien Revenue Bonds, Series 2003, dated August 12, 2003 (the “**Series 2003 Subordinated Bonds**”), in the aggregate principal amount of \$176,220,000 to finance certain Costs of the System and retire Series A-B Notes, (ii) designated the Series 2003 Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2003 Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Fifth Supplemental Indenture of Trust, dated August 3, 2004 (the “**Fifth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinated Lien Revenue Bonds, Series 2004, as Subseries 2004A-1, Subseries 2004A-2, Subseries 2004B-1 and Subseries B-2 (collectively, the “**Series 2004 Subordinated Bonds**”) in the aggregate principal amount of \$295,000,000 to finance certain Costs of the System, (ii) designated the Series 2004 Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2004 Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Sixth Supplemental Indenture of Trust, dated June 6, 2007 (the “**Sixth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinated Lien Revenue Bonds, Series 2007A, in the aggregate principal amount of \$218,715,000 to finance certain Costs of the System and retire Series A-B Notes, (ii) designated the Series 2007A Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2007A Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Seventh Supplemental Indenture of Trust, dated June 6, 2007 (the “**Seventh Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinated Lien Taxable Revenue Bonds, Series 2007B,

in the aggregate principal amount of \$59,000,000 to finance certain Costs of the System, (ii) designated the Series 2007B Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2007B Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Eighth Supplemental Indenture of Trust, dated April 24, 2008 (the “**Eighth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinated Lien Revenue Refunding Bonds, Series 2008, in the aggregate principal amount of \$290,375,000 to (a) currently refund all of the outstanding Series 2004 Subordinated Bonds and a portion of the Series 2007B Subordinated Bonds, and (b) pay issuance costs of the Series 2008 Subordinated Bonds, (ii) designated the Series 2008 Subordinated Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2008 Subordinated Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Ninth Supplemental Indenture of Trust, dated December 19, 2008 (the “**Ninth Supplemental Indenture**”), between the Authority and the Trustee, the Authority agreed to confer on the Holders of the Series 2003 Subordinated Bonds additional rights related to the Reserve Credit Facility (as defined therein) and to cure any ambiguity or omission in the Indenture regarding the obligations of the Authority as a consequence of a downgrade of the Reserve Policy related to the Series 2003 Subordinated Bonds, or in the event that the Reserve Policy were to cease to be in effect; and

WHEREAS, pursuant to the Tenth Supplemental Indenture of Trust, dated February 12, 2009 (the “**Tenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority (i) issued its Public Utility Senior Lien Revenue Bonds, Series 2009A, in the aggregate principal amount of \$300,000,000 to finance certain Costs of the System and retire Series A-B Notes, (ii) designated the Series 2009A Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (iii) secured the Series 2009A Senior Lien Bonds by a pledge of Net Revenues on a parity with the pledge of Net Revenues that secures the other Senior Debt, including, without limitation, other Senior Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Eleventh Supplemental Indenture of Trust, dated June 2, 2010 (the “**Eleventh Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Commercial Paper Notes defined therein as the Series A-B-C Notes, (ii) designated the Series A-B-C Notes as Subordinate Debt for purposes of the Indenture, and (iii) made provision for the securing of the Series A-B-C Notes and of the Reimbursement Obligations to the Bank that provided the Letters of Credit (all as defined therein) that secure the Series A-B-C Notes; and

WHEREAS, pursuant to the Twelfth Supplemental Indenture of Trust, dated October 27, 2010 (the “**Twelfth Supplemental Indenture**”), between the Authority and the Trustee, the Authority (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2010A (Federally Taxable – Issuer Subsidy – Build America Bonds) in the aggregate principal amount of

\$300,000,000 to finance certain Costs of the System, and fund capitalized interest on a portion of the Series 2010A Subordinate Bonds, subject to specified limitations, (ii) designated the Series 2010A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, (iii) secured the Series 2010A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, and (iv) included provisions in the Indenture related to potential Direct Payments (as defined therein) received or expected to be received by the Authority, including certain provisions requiring the consent of the holders of a majority of Outstanding Bonds; and

WHEREAS, pursuant to the Thirteenth Supplemental Indenture of Trust, dated March 22, 2012 (the “**Thirteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (A) (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2012A in the aggregate principal of \$177,430,000 to finance certain Costs of the System and pay certain costs of issuance, (ii) designated the Series 2012A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2012A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, (B) (i) issued its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2012B in the aggregate principal amount of \$100,000,000 to finance certain Costs of the System, fund capitalized interest on a portion of the Series 2012B Subordinate Bonds subject to specified limitations, and pay certain costs of issuance, (ii) designated the Series 2012B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2012B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, and (C) (i) issued its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2012C in the aggregate principal amount of \$163,215,000, and applied the proceeds thereof, together with any other funds of the Authority, to advance refund the Refunded Bonds (as defined in the Thirteenth Supplemental Indenture) and caused them to be deemed paid and no longer Outstanding for purposes of the Indenture, and paid certain costs of issuance, (ii) designated the Series 2012C Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2012C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Fourteenth Supplemental Indenture of Trust, dated August 1, 2013 (the “**Fourteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2013A, in the aggregate principal amount of \$300,000,000 to (a) finance certain Costs of the System, and (b) pay issuance costs of the Series 2013A Subordinate Bonds, (ii) designated the Series 2013A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2013A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures

other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Fifteenth Supplemental Indenture of Trust, dated July 23, 2014 (the “**Fifteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority (i) issued its Public Utility Senior Lien Revenue Bonds, Series 2014A, in the aggregate principal amount of \$350,000,000 to finance certain Costs of the System, (ii) designated the Series 2014A Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (iii) secured the Series 2014A Senior Lien Bonds by a pledge of Net Revenues on a parity with the pledge of Net Revenues that secures the other Senior Debt, including, without limitation, other Senior Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Sixteenth Supplemental Indenture of Trust, dated July 23, 2014 (the “**Sixteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2014B, in the aggregate principal amount of \$100,000,000 (the “**Series 2014B Subordinate Bonds**”) to finance certain Costs of the System and pay certain costs of issuance, (ii) designated the Series 2014B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2014B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Seventeenth Supplemental Indenture of Trust, dated November 20, 2014 (the “**Seventeenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2014C, in the aggregate principal amount of \$377,700,000 (the “**Series 2014C Subordinate Bonds**”) to (a) advance refund all or a portion of the Authority’s outstanding Series 2007A Subordinated Bonds, the Series 2008A Subordinated Bonds, and the Series 2009A Senior Lien Bonds, and current refund all of the Authority’s outstanding Subseries 2012B-1 of the Series 2012 Subordinate Bonds, and (b) pay issuance costs of the Series 2014C Subordinate Bonds, (ii) designated the Series 2014C Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2014C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Eighteenth Supplemental Indenture of Trust, dated October 15, 2015 (the “**Eighteenth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2015A in the aggregate principal amount of \$100,000,000 (the “**Series 2015A Subordinate Bonds**”) to (a) finance certain Costs of the System, and (b) pay issuance costs of the Series 2015A Subordinate Bonds, (ii) designated the Series 2015A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, (iii) secured the Series 2015A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future,

(iv) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2015B in an aggregate principal amount of \$250,000,000 (the “**Series 2015B Subordinate Bonds**” and, together with the Series 2015A Subordinate Bonds, the “**Series 2015A/B Subordinate Bonds**”) to (a) finance certain Costs of the System, and (b) pay issuance costs of the Series 2015B Subordinate Bonds, (v) designated the Series 2015B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (vi) secured the Series 2015B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Nineteenth Supplemental Indenture of Trust, dated December 1, 2015 (the “**Nineteenth Supplemental Indenture**”) between the Trustee and the Authority, the Authority authorized (i) the issuance of its Extendable Municipal Commercial Paper Notes, Series A (the “**Series A EMCP Notes**”) in the aggregate principal amount of not to exceed \$100,000,000 outstanding at any time to finance certain Costs of the System, (ii) designated the Series A EMCP Notes as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series A EMCP Notes by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twentieth Supplemental Indenture of Trust, dated February 24, 2016 (the “**Twentieth Supplemental Indenture**”) between the Trustee and the Authority, the Authority (i) issued its Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2016A in the aggregate principal amount of \$389,110,000 (the “**Series 2016A Subordinate Bonds**”) to (a) refund all or a portion of the Authority’s outstanding Series 2007A Subordinated Bonds, Series 2008A Subordinated Bonds, and Series 2009A Senior Lien Bonds, and (b) pay issuance costs of the Series 2016A Subordinate Bonds, (ii) designated the Series 2016A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2016A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-First Supplemental Indenture of Trust, dated September 29, 2016 (the “**Twenty-First Supplemental Indenture**”) between the Trustee and the Authority, the Authority (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2016B (Environmental Impact Bonds) in the aggregate principal amount of \$25,000,000 (the “**Series 2016B Subordinate Bonds**”) to (a) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project); and (b) pay certain costs of issuance, (ii) designated the Series 2016B Subordinate Bonds as Subordinate Debt, as Variable Rate Indebtedness and as Tender Indebtedness for purposes of the Indenture, and (iii) secured the Series 2016B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Second Supplemental Indenture of Trust, dated February 23, 2017 (the “**Twenty-Second Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Senior Lien Revenue Bonds, Series 2017A in the aggregate principal amount of \$100,000,000 (the “**Series 2017A Senior Lien Bonds**”) to (a) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (b) pay issuance costs of the Series 2017A Senior Lien Bonds, (ii) designated the Series 2017A Senior Lien Bonds as Senior Debt for purposes of the Indenture, (iii) secured the Series 2017A Senior Lien 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, (iv) issued its Public Utility Senior Lien Revenue Bonds, Series 2017B in an aggregate principal amount of \$200,000,000 (the “**Series 2017B Senior Lien Bonds**” and, together with the Series 2017A Senior Lien Bonds, the “**Series 2017A/B Senior Lien Bonds**”) to (a) finance certain Costs of the System, and (b) pay issuance costs of the Series 2017B Senior Lien Bonds, (v) designated the Series 2017B Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (vi) secured the Series 2017B Senior Lien 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, pursuant to the Twenty-Third Supplemental Indenture of Trust, dated April 30, 2018 (the “**Twenty-Third Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2018A in the aggregate principal amount of \$100,000,000 (the “**Series 2018A Senior Lien Bonds**”) to (a) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (b) pay issuance costs of the Series 2018A Senior Lien Bonds, (ii) designated the Series 2018A Senior Lien Bonds as Senior Debt for purposes of the Indenture, (iii) secured the Series 2018A Senior Lien 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, (iv) issued its Public Utility Senior Lien Revenue Bonds, Series 2018B in an aggregate principal amount of \$200,000,000 (the “**Series 2018B Senior Lien Bonds**” and, together with the Series 2018A Senior Lien Bonds, the “**Series 2018A/B Senior Lien Bonds**”) to (a) finance certain Costs of the System, (b) pay issuance costs of the Series 2018B Senior Lien Bonds and (c) refund all of the Authority’s then outstanding Commercial paper Notes, Series B, (v) designated the Series 2018B Senior Lien Bonds as Senior Debt for purposes of the Indenture, and (vi) secured the Series 2018B Senior Lien 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, pursuant to the Twenty-Fourth Supplemental Indenture of Trust, dated November 6, 2019 (the “Twenty-Fourth Supplemental Indenture”), between the Authority and the Trustee, the Authority: (i)(a) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2019A in the aggregate principal amount of \$104,010,000 (the “**Series 2019A Subordinate Bonds**”) to (1) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (2) pay issuance costs of the Series 2019A Subordinate Bonds, (b) designated the Series 2019A Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2019A Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and

on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, and (ii)(a) issued its Public Utility Subordinate Revenue Bonds, Series 2019B in an aggregate principal amount of \$58,320,000 (the “**Series 2019B Subordinate Bonds**” and, together with the Series 2019A Subordinate Bonds, the “**Series 2019A/B Subordinate Bonds**”) to (1) finance certain Costs of the System, and (2) pay issuance costs of the Series 2019B Subordinate Bonds, (b) designated the Series 2019B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2019B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Fifth Supplemental Indenture of Trust, dated November 6, 2019 (the “Twenty-Fifth Supplemental Indenture”), between the Authority and the Trustee, the Authority: (a) issued its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2019C (the “**Series 2019C Subordinate Bonds**”) in the aggregate principal amount of \$[par amount] to (1) finance certain Costs of the System, and (2) pay issuance costs of the Series 2019C Subordinate Bonds, (b) designated the Series 2019C Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secured the Series 2019C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Sixth Supplemental Indenture of Trust, dated November 6, 2019 (the “Twenty-Sixth Supplemental Indenture”), between the Authority and the Trustee, the Authority: (i) issued Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2019D (Federally Taxable) (the “**Series 2019D Subordinate Bonds**”) in the aggregate principal amount of \$343,160,000 to (a) refund the Authority’s outstanding Series 2013A Subordinated Bonds (the “**Refunded Bonds**”), and (b) pay issuance costs of the Series 2019D Subordinate Bonds, (ii) designate the Series 2019D Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secure the Series 2019D Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Seventh Supplemental Indenture of Trust, dated April 8, 2020 (the “**Twenty-Seventh Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) entered into the 2020 Term Loan Agreement in connection with the Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022A (the “**Series 2022A Subordinate Lien Refunding Bonds**”), (ii) pursuant to the 2020 Term Loan Agreement intends to issue its Series 2022A Subordinate Lien Refunding Bonds in the aggregate principal amount of \$294,305,000 in July 2022 to (a)(I) refund all of its outstanding Series 2012A Subordinate Bonds and Series 2012C Subordinate Bonds; and (II) pay certain costs of issuance, (iii) designated the Series 2022A Subordinate Lien Refunding Bonds as Subordinate Debt for purposes of the Indenture, and (iv) secured the Series 2022A Subordinate Lien Refunding Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt

and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future;

WHEREAS, pursuant to the Twenty-Eighth Supplemental Indenture of Trust, dated as of March 5, 2021 (the “**Twenty-Eighth Supplemental Indenture**”) between the Authority and the Trustee, the Authority entered into a revised Master Letter of Credit Agreement with TD Bank, N.A. to provide letters of credit for the benefit of the Authority’s Rolling Owner Controlled Insurance Program, in an aggregate maximum amount at any one time outstanding of \$25,000,000 and secured the Reimbursement Obligations (as defined in the Twenty-Eighth Supplemental Indenture) by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Twenty-Ninth Supplemental Indenture of Trust, dated as of March 12, 2021 between the Authority and the Trustee, as amended by the First Amendment to the Twenty-Ninth Supplemental Indenture of Trust dated September 17, 2021 between the Authority and the Trustee (together, the “**Twenty-Ninth Supplemental Indenture**”), the Authority (i) entered into a 2021 WIFIA Loan Agreement in connection with the Series 2021 Senior Lien Bonds; (ii) issued its Public Utility Senior Lien Revenue Bonds, Series 2021 Senior Lien Bonds (the “**Series 2021 Senior Lien Bonds**”) in the aggregate principal amount of \$156,367,104 to (1) finance certain Costs of the System (specifically, the costs of the 2021 WIFIA Project as defined therein), and (2) pay issuance costs of the Series 2021 Senior Lien Bond, (iii) designate the Series 2021 Senior Lien Bond as Senior Debt for purposes of the Indenture, and (iv) secure the Series 2021 Senior Lien Bond 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, pursuant to the Thirtieth Supplemental Indenture of Trust, dated _____, 2022 (the “**Thirtieth Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i)(a) issued its Public Utility Subordinate Lien Revenue Bonds, Series 2022B (Green Bonds) (the “**Series 2022B Subordinate Bonds**”) in the aggregate principal amount of \$_____ to (1) finance certain Costs of the System (specifically, a portion of the costs of the Authority’s DC Clean Rivers Project), and (2) pay issuance costs of the Series 2022B Subordinate Bonds, (b) designate the Series 2022B Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (c) secure the Series 2022B Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future, (ii)(a) issue the Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1 in an aggregate principal amount of \$_____ (the “**Series 2022C-1 Subordinate Bonds**”) to (1) finance certain Costs of the System, (2) refund a portion of the outstanding subordinate commercial paper notes, (3) purchase the Purchased Refunded Bonds and (4) pay issuance costs of the Series 2022C Subordinate Bonds and (b) designate the Series 2022C-1 Subordinate Bonds as Subordinate Debt for purposes of the Indenture, (iii)(a) issue the Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 in an aggregate principal amount of \$_____ (the “**Series 2022C-2**”

Subordinate Bonds”, together with the Series 2022C-1 Subordinate Bonds, the “**Series 2022C Subordinate Bonds**” and together with the Series 2022C-1 Subordinate Bonds and the Series 2022B Subordinate Bonds, the “**Series 2022B/C Subordinate Bonds**”) to replace the Exchanged Refunded Bonds and (b) designate the Series 2022C-2 Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iv) secure the Series 2022C Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and

WHEREAS, pursuant to the Thirty-First Supplemental Indenture of Trust, dated _____, 2022 (the “**Thirty-First Supplemental Indenture**”), between the Authority and the Trustee, the Authority: (i) issue Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022D (Federally Taxable) (the “Series 2022D Subordinate Bonds”) in the aggregate principal amount of \$_____ to (a) finance certain Costs of the System, (b) refund all or a portion of the Authority’s outstanding [Series _____ Subordinated Bonds], and (c) pay issuance costs of the Series 2022D Subordinate Bonds, (ii) designate the Series 2022D Subordinate Bonds as Subordinate Debt for purposes of the Indenture, and (iii) secure the Series 2022D Subordinate Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future;

WHEREAS, the Authority now intends to: (i) issue Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E (the “**Series 2022E Subordinate Bonds**”), (a) to finance certain Costs of the System; (b) to fund a Series 2022E Debt Service Reserve Requirement, (as defined herein); and (c) pay certain costs of issuance of the Series 2022E Bonds; (ii) to designate the Series 2022E Bonds as Subordinate Debt for purposes of the Indenture; and (iii) to secure the Series 2022E Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future;

NOW THEREFORE, in consideration of the premises and the mutual covenants and agreements hereinafter contained, the parties hereto agree, as follows:

ARTICLE I

THIRTY-SECOND SUPPLEMENTAL INDENTURE

Section 101. Authorization of Thirty-Second Supplemental Indenture.

This Thirty-Second Supplemental Indenture is authorized and executed by the Authority and delivered to the Trustee pursuant to and in accordance with Articles III and X of the Master Indenture. All terms, covenants, conditions and agreements of the Indenture shall apply with full force and effect to the Series 2022E Subordinate Bonds as Subordinate Debt and to the Holders thereof as Holders of Subordinate Debt, except as otherwise provided in this Thirty-Second Supplemental Indenture.

Section 102. Definitions.

Except as otherwise defined in this Thirty-Second Supplemental Indenture, capitalized words and terms defined in the Master Indenture as amended by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture, the Twenty-Ninth Supplemental Indenture, the Thirtieth Supplemental Indenture, the Thirty-First Supplemental Indenture and in the Series 2022E Resolution, are used in this Thirty-Second Supplemental Indenture with the meanings assigned to them therein. In addition, the following words and terms as used in this Thirty-Second Supplemental Indenture have the following meanings, unless the context or use clearly indicates another or different intent or meaning:

(a) Generally Applicable Definitions

“Book-entry form” or “book-entry system” means a form or system under which the physical Series 2022E Subordinate Bond certificates in fully registered form are issued only to a Depository or its nominee as Holder, with the certificated Series 2022E Subordinate Bonds held by and “immobilized” in the custody of the Depository, and the book-entry system, maintained by and the responsibility of the Depository and not maintained by or the responsibility of the Authority or the Trustee, is the record that identifies, and records the transfer of the interests of, the owners of beneficial, book-entry interests in the Series 2022E Subordinate Bonds.

“Depository” means any securities depository that is a clearing agency under federal law operating and maintaining, with its participants or otherwise, a book-entry system to record ownership of book-entry interests in Series 2022E Subordinate Bonds, and to effect transfers of

book-entry interests in Series 2022E Subordinate Bonds, and includes and means initially The Depository Trust Company (a limited purpose trust company), New York, New York.

“Interest Payment Dates” means the “Interest Payment Dates” as defined under Section 102(b) below.

“Series 2022E Construction Account” means the Series 2022E Construction Account established by this Thirty-Second Supplemental Indenture in the Construction Fund.

“Series 2022E Costs of Issuance Subaccount” means the Series 2022E Costs of Issuance Subaccount established by this Thirty-Second Supplemental Indenture in the Series 2022E Construction Account of the Construction Fund.

[“Series 2022E Rebate Fund” means the Series 2022E Rebate Fund established by this Thirty-Second Supplemental Indenture.]

“Series 2022E Resolution” means Resolution No. [__-__], adopted by the Authority’s Board on _____, 2022, authorizing the Series 2022E Subordinate Bonds.

“Series 2022E Subordinate Bond Event of Default” means any of the events defined as such in Section 903 of this Thirty-Second Supplemental Indenture.

“Series 2022E Subordinate Bondholder” or “holder of Series 2022E Subordinate Bonds” means the registered owner of a Series 2022E Subordinate Bond.

“Series 2022E Subordinate Bonds Interest Subaccount” means the Series 2022E Subordinate Bonds Interest Subaccount established by this Thirty-Second Supplemental Indenture in the Subordinate Interest Account in the Subordinate Bond Fund.

“Series 2022E Subordinate Bonds Principal Subaccount” means the Series 2022E Subordinate Bonds Principal Subaccount established by this Thirty-Second Supplemental Indenture in the Subordinate Principal Account in the Subordinate Bond Fund.

“Series 2022E Subordinate Debt Service Reserve Requirement” means zero.

“Thirty-Second Supplemental Indenture” means this Thirty-Second Supplemental Indenture of Trust, dated _____, 2022, between the Authority and the Trustee, which supplements and amends the Master Indenture, as previously supplemented and amended.

“Variable Rate Series 2022E Subordinate Bonds” means, collectively, each series or subseries of the Series 2022E Subordinate Bonds designated as such in the applicable Certificate of Award pursuant to the Series 2022E Resolution and constituting Variable Rate Indebtedness under the Indenture.

(b) Definitions Applicable to Variable Rate Series 2022E Subordinate Bonds

“Applicable Spread” means the number of basis points or schedule of basis points determined in accordance with Section 403(j) that, when added to the SIFMA Index or the LIBOR Index, as the case may be, would equal the minimum interest rate per annum that would enable the Remarketing Agent to sell the Variable Rate Series 2022E Subordinate Bonds on such

date at a price equal to the principal amount thereof (but subject to the provisions of the final sentence of Section 403(j)), plus accrued interest, if any, thereon.

“Authority Purchase Account” means the account of that name that may be established in the Purchase Fund pursuant to Section 407.

“Authorized Denominations” means (i) with respect to Fixed Rate Bonds, \$5,000 and integral multiples thereof, (ii) with respect to Daily Rate Bonds, Weekly Rate Bonds, Short-Term Rate Bonds and Long-Term Rate Bonds, \$100,000 and integral multiples of \$5,000 in excess thereof, and (iii) with respect to Index Rate Bonds, \$5,000 or \$100,000 and integral multiples thereof, as may be specified in writing by an Authorized Official.

“Authorized Officials” means the Chairman and Vice Chairman of the Board and the CEO and General Manager, Chief Financial Officer and Executive Vice President, Finance and Procurement, 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.

“Business Day” means a day other than (i) a Saturday or Sunday, (ii) a day on which commercial banks located in New York, New York or the cities in which the Designated Office of the Trustee, the Tender Agent, the Remarketing Agent or the Credit Facility Provider are located, are required or authorized by law or executive order to close, and (iii) a day on which the New York Stock Exchange is closed.

“Calculation Agent” means any Person appointed by the Authority to serve as calculation agent for the Series 2022E Subordinate Bonds.

“Closing Date” means _____, 2022, being the date of delivery of and payment for all of the Variable Rate Series 2022E Subordinate Bonds.

“Computation Date” means during any subsequent Index Rate Period, each Wednesday immediately preceding an Index Interest Period.

“Conversion Date” means a day on which the Variable Rate Series 2022E Subordinate Bonds are converted from one Rate Period to another Rate Period, in accordance with this Thirty-Second Supplemental Indenture.

“Credit Facility” means a letter of credit, liquidity facility or other credit enhancement instrument delivered by a Credit Facility Provider to the Trustee to secure the payment of the principal of and interest on, and any Purchase Price of, all or some of the Variable Rate Series 2022E Subordinate Bonds, or to provide liquidity for the purchase of tendered Variable Rate Series 2022E Subordinate Bonds. The term “Credit Facility” includes any Substitute Credit Facility. The Series 2022E Subordinate Bonds will not be secured by a Credit Facility during the Initial Period.

“Credit Facility Account” means the account by that name that may be established in the Subordinate Bond Fund pursuant to Section 701.

“Credit Facility Provider” means a bank, trust company, insurance company or other financial services company, or the Authority (if the Authority is providing liquidity for any

Variable Rate Series 2022E Subordinate Bonds itself), issuing a Credit Facility then in effect in its capacity as provider of that Credit Facility.

“Credit Facility Provider Bonds” means Variable Rate Series 2022E Subordinate Bonds purchased by or on behalf of, or pledged to, a Credit Facility Provider pursuant to a Credit Facility and/or Reimbursement Agreement and the terms hereof but excluding Variable Rate Series 2022E Subordinate Bonds no longer considered Credit Facility Provider Bonds pursuant to the terms of a Credit Facility and/or Reimbursement Agreement.

“Credit Facility Provider Rate” means the interest rate(s) applicable from time to time on Credit Facility Provider Bonds as determined in accordance with the Credit Facility and/or Reimbursement Agreement; provided that no Credit Facility Provider Rate shall exceed the Maximum Rate.

“Credit Facility Purchase Account” means the account by that name that may be established in the Purchase Fund pursuant to Section 407.

“Credit Facility Request” means the submission by the Trustee to the Credit Facility Provider of a properly presented and conforming request or draw in accordance with the terms of the Credit Facility to provide funds to pay the Purchase Price of or Debt Service Charges on the Variable Rate Series 2022E Subordinate Bonds.

“Daily Interest Period” means each Interest Period described in Section 403(c) during which the Variable Rate Series 2022E Subordinate Bonds bear interest at a particular Daily Rate.

“Daily Rate” means the per annum interest rate for the Variable Rate Series 2022E Subordinate Bonds during a Daily Rate Period determined on a daily basis as provided in Section 403(c).

“Daily Rate Bonds” means Variable Rate Series 2022E Subordinate Bonds bearing interest at a Daily Rate.

“Daily Rate Period” means the Rate Period during which the Daily Rates are in effect for the Variable Rate Series 2022E Subordinate Bonds.

“Designated Office” means with respect to any entity performing functions under the Indenture, the office or offices of that entity or its affiliate at which those functions are performed, as designated in writing to the Authority, the Trustee, the Tender Agent, any Credit Facility Provider and the Remarketing Agent. The office initially designated by the Trustee for purposes of receiving notices under the Indenture is its Philadelphia, Pennsylvania corporate trust office located at 123 S. Broad Street, Suite 1500, MAC Y1379-157, Philadelphia, Pennsylvania 19109. The office initially designated by the Trustee for the purpose of presentation and surrender of Variable Rate Series 2022E Subordinate Bonds is its Minneapolis, Minnesota corporate trust operations office located at 600 South Fourth Street, 7th Floor, MAC N9300-070, Minneapolis, MN 55415. The Designated Office for any Credit Facility Provider is the office at which Credit Facility Requests are to be submitted by the Trustee, in accordance with the Credit Facility.

“Electronic Means” means facsimile transmission, email transmission or other similar electronic means of communication providing evidence of transmission, including a telephone communication confirmed by any other method set forth in this definition.

“Eligible Account” means an account that is maintained with either (i) a federal or state-chartered depository institution or trust company that has a short-term debt rating assigned by a Rating Agency of at least A-2 (or, if it does not have a short-term debt rating, has a long-term debt rating assigned by the Rating Agency of at least BBB+); or (ii) the corporate trust department of a federal depository institution or state-chartered depository institution that, in either case, has corporate trust powers and is acting in its fiduciary capacity.

“Expiration Date” means, with respect to any Credit Facility, the date upon which the Credit Facility is stated to expire (taking into account any extensions of the Expiration Date) in accordance with its terms.

“Favorable Opinion of Bond Counsel” means an opinion of Bond Counsel addressed to the Authority, the Remarketing Agent, the Credit Facility Provider and the Trustee, to the effect that the proposed action to be taken regarding the Variable Rate Series 2022E Subordinate Bonds is authorized or permitted by this Thirty-Second Supplemental Indenture and will not adversely affect the exclusion of interest on the Variable Rate Series 2022E Subordinate Bonds from gross income for purposes of federal income taxation under Section 103 of the Code. If a Favorable Opinion of Bond Counsel is delivered in connection with the conversion from one Rate Period to another Rate Period, the opinion with respect to the exclusion of interest from gross income for federal income tax purposes may be limited to interest payable on or prior to the Conversion Date.

“Fixed Rate” means the interest rate or rates to maturity established in accordance with Section 403(g).

“Fixed Rate Bonds” means Variable Rate Series 2022E Subordinate Bonds bearing interest at a Fixed Rate.

“Fixed Rate Period” means the period of time, which shall end at the Maturity Date, during which the Variable Rate Series 2022E Subordinate Bonds bear interest at a Fixed Rate.

“Hard Tender Index Rate Bonds” means Index Rate Bonds that are specified in the applicable Notice of Conversion for any Subsequent Index Rate Period.

“Hard Tender Long-Term Rate Bonds” means Long-Term Rate Bonds designated as such in the applicable Notice of Conversion.

“Index Interest Period” means, during any Index Rate Period, each Interest Period during which the Variable Rate Series 2022E Subordinate Bonds bear interest at a particular Index Rate under Section 403(j) or (k).

“Index Rate” means the SIFMA Index Rate, the LIBOR Index Rate, or any other standardized rate index commonly utilized in municipal finance transactions as approved by the Authority’s Financial Advisor, as the case may be. If a rate index other than the SIFMA Index Rate or the LIBOR Index Rate is used, an Authorize Official of the Authority may execute an

amendment to the this Thirty-Second Supplemental Indenture to implement such additional rate index.

“Index Rate Bonds” means any Variable Rate Series 2022E Subordinate Bonds bearing interest at an Index Rate.

“Index Rate Bonds Purchase Date” means the date on which the Index Rate Bonds shall be required to be tendered for purchase in accordance with Section 408(a)(v).

“Index Rate Period” means any Rate Period during which the Variable Rate Series 2022E Subordinate Bonds bear interest at an Index Rate. For purposes of this definition, a LIBOR Index Rate Period and a SIFMA Index Rate Period shall be deemed to be different Index Rate Periods.

“Initial Period” means the initial Long-Term Interest Period commencing on the Issue Date and ending on the day immediately prior to a new Interest Period.

“Interest Payment Date” means (i) when the Variable Rate Series 2022E Subordinate Bonds bear interest at a Daily Rate, a Weekly Rate or an Index Rate, the first Business Day of each calendar month; (ii) when the Variable Rate Series 2022E Subordinate Bonds bear interest at a Fixed Rate or Long-Term Rate, each April 1 and October 1 or such other date or dates as are specified in the applicable notice of conversion, commencing, during the Initial Period, on October 1, 2022; (iii) when the Variable Rate Series 2022E Subordinate Bonds bear interest at a Short-Term Rate, the last day of the Short-Term Rate Period; (iv) with respect to Credit Facility Provider Bonds, the interest payment dates set forth in the Credit Facility and/or Reimbursement Agreement; provided (unless otherwise provided in the Reimbursement Agreement with respect to Credit Facility Provider Bonds) that, if any such day is not a Business Day, any payment due on such date may be made on the next Business Day, without additional interest and with the same force and effect as if made on the specified date for such payment; and (v) each Conversion Date.

“Interest Period” means a (i) Daily Interest Period, (ii) a Weekly Interest Period, (iii) an Index Interest Period, (iv) a Short-Term Interest Period, (v) a Long-Term Interest Period, or (vi) a Fixed Interest Period.

“Issue Date” means _____, 2022.

“LIBOR Index” means, for any day, the London interbank offered rate for U.S. dollar deposits for a one month period, as reported on Reuters Screen LIBOR01 Page or any successor thereto, which shall be that one-month LIBOR rate in effect two New York Banking Days prior to the LIBOR Index Reset Date, such rate rounded up to the nearest one-Thirtieth of one percent and such rate to be reset monthly on each LIBOR Index Reset Date.

“LIBOR Index Rate” means a per annum rate of interest equal to the sum of the Applicable Spread plus the LIBOR Index.

“LIBOR Index Rate Period” means each Index Interest Period during which the Variable Rate Series 2022E Subordinate Bonds bear interest at the LIBOR Index Rate, from and including the Conversion Date to but excluding the earlier of (i) the immediately succeeding Index Rate

Bonds Purchase Date and (ii) the maturity or redemption date of the Variable Rate Series 2022E Subordinate Bonds.

“LIBOR Index Reset Date” means the first Business Day of each month; provided, however, that with respect to determining the LIBOR Index for purposes of the Closing Date, the LIBOR Rate shall be the LIBOR Rate in effect two New York Banking Days prior to the Closing Date.

“Long-Term Interest Period” means each Interest Period described in Section 403(f) during which Variable Rate Series 2022E Subordinate Bonds accrue interest at a particular Long-Term Rate.

“Long-Term Rate” means the per annum interest rate to be determined on the Variable Rate Series 2022E Subordinate Bonds for a term of at least 12 months pursuant to Section 403(f).

“Long-Term Rate Bonds” means any Variable Rate Series 2022E Subordinate Bonds bearing interest at a Long-Term Rate.

“Long-Term Rate Period” means the Rate Period during which Long-Term Rates are in effect for the Variable Rate Series 2022E Subordinate Bonds.

“Mandatory Sinking Fund Redemption Requirements” means the mandatory redemption requirements set forth in Section 501(b).

“Maturity Dates” means, for the Variable Rate Series 2022E Subordinate Bonds October 1, ____, all subject to prior redemption as provided in Article V.

“Maximum Rate” means the least of (i) the maximum rate permitted by law, (ii) 12% per annum, and (iii) when a Credit Facility is in effect and solely with respect to Variable Rate Series 2022E Subordinate Bonds that are not Credit Facility Provider Bonds, the maximum rate utilized to determine the amount available under such Credit Facility.

“New York Banking Day” means any date (other than a Saturday or Sunday) on which commercial banks are open for business in New York, New York.

“Notice of Conversion” means any notice of conversion given by the Authority pursuant to Section 404(a)(i).

“Official’s Certificate” means a certificate signed by an Authorized Official.

“Participants” means those financial institutions for whom the Depository effects book-entry transfers and pledges of securities deposited with the Depository, as such listing of Participants exists at the time of such reference.

“Payment Date” means an Interest Payment Date or a Principal Payment Date.

“Payment Default” means a failure by the Authority to pay principal of or interest on Variable Rate Series 2022E Subordinate Bonds when due.

“Penalty Rate” means, for purposes of Section 407(e) with respect to (i) Soft Tender Index Rate Bonds and Soft Tender Long-Term Rate Bonds after they are tendered for purchase but not purchased, ____ percent (___%) per annum, or (ii) Variable Rate Series 2022E Subordinate Bonds bearing interest at the Weekly Rate, Daily Rate, Short-Term Rate or Hard Tender Long-Term Rate Bonds with no Credit Facility in effect and funds are insufficient to purchase such Variable Rate Series 2022E Subordinate Bonds on a Purchase Date, the Maximum Rate.

“Prevailing Market Conditions” means, to the extent relevant (in the professional judgment of the Remarketing Agent) at the time of establishment of a rate or rates for Variable Rate Series 2022E Subordinate Bonds as provided in Section 403, (i) interest rates on comparable securities then being issued and traded, (ii) other financial market rates and indices that may have a bearing on rates of interest, (iii) general financial market conditions (including then current forward supply figures) that may have a bearing on rates of interest, and (iv) the financial condition, results of operation and credit standing of the Authority and the Credit Facility Provider to the extent such standing has a bearing on rates of interest.

“Principal Payment Date” means each date on which principal of a Variable Rate Series 2022E Subordinate Bond is due and payable, whether at maturity or upon redemption.

“Purchase Date” means each date on which Variable Rate Series 2022E Subordinate Bonds are subject to optional or mandatory purchase pursuant to Article IV.

“Purchase Fund” means the fund by that name established pursuant to Section 407 and held by the Tender Agent.

“Purchase Price” means, with respect to a Variable Rate Series 2022E Subordinate Bond subject to purchase on a Purchase Date, an amount equal to 100% of the principal amount thereof plus (if such Purchase Date is not an Interest Payment Date therefor) accrued and unpaid interest thereon to such Purchase Date.

“Rate Period” means (i) a Daily Rate Period (comprised of separate Daily Interest Periods), (ii) a Weekly Rate Period (comprised of separate Weekly Interest Periods), (iii) a Short-Term Rate Period (comprised of separate Short-Term Interest Periods), (iv) a Long-Term Rate Period (comprised of separate Long-Term Interest Periods), (v) a Fixed Rate Period, (vi) an Index Rate Period (comprised of separate Index Interest Periods) or (vii) a Subsequent Index Rate Period (comprised of separate Subsequent Index Interest Periods).

“Regular Record Date” means (i) with respect to each Interest Payment Date for Daily Rate Bonds, Weekly Rate Bonds, Index Rate Bonds or Short-Term Rate Bonds, the close of business on the Business Day immediately preceding that Interest Payment Date, and (ii) with respect to each Interest Payment Date for Fixed Rate Bonds or Long-Term Rate Bonds, the close of business on the 15th day of the calendar month next preceding such Interest Payment Date.

“Reimbursement Agreement” means any reimbursement agreement (or standby bond purchase agreement) between the Authority and a Credit Facility Provider setting forth the obligations of the Authority to such Credit Facility Provider arising out of any payments under a Credit Facility and which provides that it shall be deemed to be a Reimbursement Agreement for the purpose of this Thirty-Second Supplemental Indenture.

“Reimbursement Obligations” means the Authority’s payment obligations pursuant to a Reimbursement Agreement.

“Remarketing Agent” means any Remarketing Agent designated for the Series 2022E Subordinate Bonds under this Thirty-Second Supplemental Indenture. RBC Capital Markets, LLC is the initial Remarketing Agent.

“Remarketing Agreement” means any Remarketing Agreement entered into for the Series 2022E Subordinate Bonds under this Thirty-Second Supplemental Indenture.

“Remarketing Proceeds Account” means the account of that name established in the Purchase Fund pursuant to Section 407.

“Short-Term Interest Period” means each Interest Period determined as provided in Section 403(e) during which the Variable Rate Series 2022E Subordinate Bonds bear interest at a particular Short-Term Rate.

“Short-Term Rate” means the per annum interest rate for the Variable Rate Series 2022E Subordinate Bonds during a Short-Term Rate Period determined on a periodic basis as provided in Section 403(e).

“Short-Term Rate Bonds” means any Variable Rate Series 2022E Subordinate Bonds bearing interest at a Short-Term Rate.

“Short-Term Rate Period” means the Rate Period during which Short-Term Rates are in effect for the Variable Rate Series 2022E Subordinate Bonds.

“SIFMA Index” means, for any Computation Date, the level of the index which is issued weekly and which is compiled from the weekly interest rate resets of tax-exempt variable rate issues included in a database maintained by Municipal Market Data which meet specific criteria established from time to time by the Securities Industry and Financial Markets Association and issued on Wednesday of each week, or if any Wednesday is not a Business Day, the next preceding Business Day. If the SIFMA Index is no longer published, then “SIFMA Index” shall mean the Standard & Poor’s Weekly High Grade Index. If the Standard & Poor’s Weekly High Grade Index is no longer published, then “SIFMA Index” shall mean the prevailing rate determined by the Calculation Agent for tax-exempt state and local government bonds meeting criteria determined in good faith by the Calculation Agent to be comparable under the circumstances to the criteria used by the Securities Industry and Financial Markets Association to determine the SIFMA Index immediately prior to the date on which the Securities and Financial Markets Association ceased publication of the SIFMA Index.

“SIFMA Index Rate” means a per annum rate of interest equal to the sum of the Applicable Spread *plus* the relevant SIFMA Index.

“SIFMA Index Rate Period” means each Index Interest Period during which the Variable Rate Series 2022E Subordinate Bonds bear interest at the SIFMA Index Rate, from and including the Conversion Date to but excluding the earlier of (i) the immediately succeeding Index Rate Bonds Purchase Date and (ii) the maturity or redemption date of the Variable Rate Series 2022E Subordinate Bonds.

“SIFMA Index Reset Date” means Thursday of each week.

“Soft Tender Index Rate Bonds” means Index Rate Bonds that are designated as such in the applicable Notice of Conversion for any Subsequent Index Rate Period.

“Soft Tender Long-Term Rate Bonds” means Long-Term Rate Bonds designated as such in the Certificate of Award for purposes of the Initial Period or a Notice of Conversion.

“Subsequent Index Interest Period” means, during any Subsequent Rate Period, each period determined as provided in Section 403(j) during which the Variable Rate Series 2022E Subordinate Bonds bear interest at a particular Index Rate.

“Subsequent Index Rate Period” means any Rate Period during which the Variable Rate Series 2022E Subordinate Bonds bear interest at the Index Rate pursuant to Section 403(j).

“Substitute Credit Facility” means a letter of credit, standby bond purchase agreement or other similar agreement replacing a Credit Facility in accordance with Section 413.

“Substitution Date” means a date on which a Substitute Credit Facility is accepted by the Trustee and becomes effective with respect to the Variable Rate Series 2022E Subordinate Bonds, or a date on which an existing Credit Facility Provider assigns all or a portion of its rights and/or obligations to an assignee Credit Facility Provider (other than a participant), in each case, in accordance with Section 413(b).

“Tender Agent” means initially the Trustee, and any successor Tender Agent as determined or designated under or pursuant to this Thirty-Second Supplemental Indenture.

“Undelivered Bond” means any Variable Rate Series 2022E Subordinate Bond that is subject to purchase pursuant to Section 406 or 408 on a Purchase Date and that is not tendered and delivered for purchase on that Purchase Date but as to which the Tender Agent holds in the Purchase Fund sufficient funds to pay the Purchase Price of that Variable Rate Series 2022E Subordinate Bond.

“Undelivered Bond Payment Account” means the account by that name in the Purchase Fund established pursuant to Section 407.

“Voluntary Termination Date” means, with respect to any Credit Facility, the date chosen by the Authority on which the Credit Facility will terminate, as elected by the Authority.

“Weekly Interest Period” means each period described in Section 403(d) during which the Variable Rate Series 2022E Subordinate Bonds bear interest at a particular Weekly Rate.

“Weekly Rate” means the per annum interest rate for the Variable Rate Series 2022E Subordinate Bonds during a Weekly Interest Period determined on a weekly basis as provided in Section 403(d).

“Weekly Rate Bonds” means Variable Rate Series 2022E Subordinate Bonds bearing interest at a Weekly Rate.

“Weekly Rate Period” means the period during which Weekly Rates are in effect for the Variable Rate Series 2022E Subordinate Bonds.

“Written Request” means a request in writing signed by an Authorized Official.

Section 103. Reference to Articles and Sections.

Unless otherwise indicated, all references herein to particular articles or sections are references to articles or sections of this Thirty-Second Supplemental Indenture.

ARTICLE II

AUTHORIZATION OF SERIES 2022E SUBORDINATE BONDS

Section 201. Authorization of Series 2022E Subordinate Bonds.

Pursuant to Article III of the Master Indenture and, specifically, Section 305 thereof, and the Series 2022E Resolution, the Authority is authorized to issue its Series 2022E Subordinate Bonds in an aggregate principal amount of \$_____, designated “Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E,” issued for the purpose of: (i) financing certain Costs of the System, and (ii) paying issuance costs of the Series 2022E Subordinate Bonds.].

The Series 2022E Subordinate Bonds are issued as Subordinate Debt pursuant to the Indenture. Under the Series 2022E Resolution, the Series 2022E Subordinate Bonds are designated in the Certificate of Award as Variable Rate Series 2022E Subordinate Bonds. The Series 2022E Subordinate Bonds will not be secured by a Credit Facility during the Initial Period.

ARTICLE III

Section 301. Delivery of Series 2022E Subordinate Bonds.

The Trustee shall authenticate and deliver the Series 2022E Subordinate Bonds when there have been filed with or delivered to it the following items:

(a) An original executed counterpart of this Thirty-Second Supplemental Indenture;

(b) A certified copy of applicable resolution(s) of the Board of Directors of the Authority and related Certificate of Award: (i) authorizing the execution and delivery of the Thirty-Second Supplemental Indenture, and (ii) authorizing the issuance, sale, award, execution and delivery of the Series 2022E Subordinate Bonds.

(c) A certificate signed by an Authorized Representative of the Authority and dated the date of such issuance, to the effect that:

(1) Either: (A) upon and immediately following such issuance, no Event of Default has occurred which has not been cured or waived, and no event or condition exists

which, with the giving of notice or lapse of time or both, would become an Event of Default, or (B) if any such event or condition is happening or existing, specifying such event or condition, stating that the Authority will act with due diligence to correct such event or condition after the issuance of the Series 2022E Subordinate Bonds, and describing in reasonable detail the actions to be taken by the Authority toward such correction; and

(2) All required approvals, limitations, conditions and provisions precedent to the issuance of the Series 2022E Subordinate Bonds have been obtained, observed, met and satisfied.

(d) An Opinion or Opinions of Counsel, subject to customary exceptions and qualifications, substantially to the effect that this Thirty-Second Supplemental Indenture has been duly authorized, executed and delivered to the Trustee and is a valid, binding and enforceable obligation of the Authority.

(e) An opinion or opinions of Bond Counsel, subject to customary exceptions and qualifications, substantially to the effect that the issuance of the Series 2022E Subordinate Bonds has been duly authorized, and that the Series 2022E Subordinate Bonds are valid and binding limited obligations of the Authority.

(f) A certificate of an Authorized Representative of the Authority, stating that rates, fees and charges are in effect or scheduled to go into effect to meet the Rate Covenant immediately after the issuance of the Series 2022E Subordinate Bonds.

(g) A request and authorization of the Authority, signed by an Authorized Representative of the Authority, to the Trustee to authenticate and deliver such Bonds to the purchaser upon payment to the Trustee in immediately available funds for the account of the Authority of a specified sum plus accrued interest to the date of delivery.

ARTICLE IV

DETAILS AND FORM OF VARIABLE RATE SERIES 2022E SUBORDINATE BONDS

Section 401. Issuance and Delivery of Variable Rate Series 2022E Subordinate Bonds, Principal Maturity and Initial Interest Rate.

The Series 2022E Subordinate Bonds shall be designated “Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E.” The Variable Rate Series 2022E Subordinate Bonds shall be numbered in such manner and carry such other designations as determined by the Authority in order to distinguish each bond from any other bond and identify the interest payment and tender option provisions applicable thereto, shall be dated as of their date of original authentication and delivery, and shall bear interest from the most recent Interest Payment Date for which interest has been paid or duly provided for or, if no interest has been paid or duly provided for, from their date of original authentication and delivery. The Variable Rate Series 2022E Subordinate Bonds of the same maturity may bear interest at different interest rates.

The Series 2022E Subordinate Bonds shall mature on their Maturity Dates, subject to prior redemption as set forth herein.

The interest on the Variable Rate Series 2022E Subordinate Bonds shall be payable on the Interest Payment Dates applicable to the Rate Period then in effect. Interest on the Variable Rate Series 2022E Subordinate Bonds shall be payable by check or draft mailed to the registered owners at their addresses as they appear on the Regular Record Date preceding the Interest Payment Date on the registration books kept by the Trustee; provided, however, if the Variable Rate Series 2022E Subordinate Bonds are registered in the name of a Depository or its nominee as registered owner or at the option of a registered owner of at least \$1,000,000 of Variable Rate Series 2022E Subordinate Bonds, payment shall be made by wire transfer pursuant to the wire instructions received by the Trustee with respect to each such payment from such registered owner. Any interest that is not timely paid or duly provided for shall cease to be payable to the Holder hereof (or of one or more predecessor bonds) as of the Regular Record Date and shall be payable to the Holder hereof at the close of business on a special record date to be fixed by the Trustee for the payment of that overdue interest. Notice of such a special record date shall be mailed to Holders not less than ten days prior thereto. Principal, premium, if any, and interest shall be payable in lawful money of the United States of America.

The Variable Rate Series 2022E Subordinate Bonds shall be issued in Authorized Denominations.

[During the Initial Period, the Variable Rate Series 2022E Subordinate Bonds shall bear interest at the Long-Term Rate.]

The Variable Rate Series 2022E Subordinate Bonds are subject to optional redemption, purchase in lieu of optional redemption, and mandatory redemption through Mandatory Sinking Fund Requirements as provided in Article V.

In the event the Variable Rate Series 2022E Subordinate Bonds are designated Soft Tender Index Rate Bonds and are mandatorily tendered pursuant to Section 408(a)(v) and the Authority fails to pay the Purchase Price, the Variable Rate Series 2022E Subordinate Bonds shall bear interest at the Penalty Rate unless and until the Purchase Price is paid or the Variable Rate Series 2022E Subordinate Bonds otherwise cease to be Outstanding; provided, however, that the interest rate on the Variable Rate Series 2022E Subordinate Bonds shall at no time exceed the Maximum Rate.

In the event the Variable Rate Series 2022E Subordinate Bonds are designated Soft Tender Long-Term Rate Bonds and are mandatorily tendered pursuant to Section 408(a)(i) and the Authority fails to pay the Purchase Price, the Variable Rate Series 2022E Subordinate Bonds shall bear interest at the Penalty Rate unless and until the Purchase Price is paid or the Variable Rate Series 2022E Subordinate Bonds otherwise cease to be Outstanding; provided, however, that the interest rate on the Variable Rate Series 2022E Subordinate Bonds shall at no time exceed the Maximum Rate.

Section 402. Depository Provisions.

Notwithstanding any other provision of this Thirty-Second Supplemental Indenture or the Variable Rate Series 2022E Subordinate Bonds, so long as the Variable Rate Series 2022E

Subordinate Bonds are in a Book Entry System and the Depository or its nominee is the Holder of the Variable Rate Series 2022E Subordinate Bonds:

(i) Presentation of Variable Rate Series 2022E Subordinate Bonds to the Trustee at redemption or at maturity, or delivery of Variable Rate Series 2022E Subordinate Bonds to the Tender Agent in connection with a purchase of tendered Variable Rate Series 2022E Subordinate Bonds, shall be deemed made to the Trustee when the right to exercise ownership rights in the Variable Rate Series 2022E Subordinate Bonds through the Depository or the Depository's participants is transferred by the Depository on its books.

(ii) Notice of a tender for purchase pursuant to Section 406 hereof shall be given by the beneficial owner of the Variable Rate Series 2022E Subordinate Bonds exercising ownership rights through the Depository or the Depository's participants by telephonic or written notice (confirmed in writing) to the Tender Agent at the times set forth in that Section.

(iii) The Depository may present notices, approvals, waivers, votes or other communications required or permitted to be made by Holders under this Thirty-Second Supplemental Indenture on a fractionalized basis on behalf of some or all of those persons entitled to exercise ownership rights in the Variable Rate Series 2022E Subordinate Bonds through the Depository or its participants.

(iv) Variable Rate Series 2022E Subordinate Bonds purchased by the Authority shall not be registered in the name of the Authority on the Register maintained by the Trustee and shall not be physically held by any party other than the Depository.

(v) Variable Rate Series 2022E Subordinate Bonds or any portion thereof shall not be transferable or exchangeable except:

(A) To any successor of the Depository;

(B) To any new Depository not objected to by the Trustee, upon (i) the resignation of then current Depository or its successor from its functions as Depository or (ii) termination of the use of the Depository by direction of the Authority;

(C) To any Persons who are the assigns of the Depository or its nominee, upon (i) the resignation of the Depository from its functions as Depository hereunder or (ii) termination by the Authority of use of the Depository.

Subject to any arrangements made by the Trustee with a Depository with respect to the Variable Rate Series 2022E Subordinate Bonds held in a Book Entry System, which arrangements are hereby authorized subject to the approval of an Authorized Official of the Authority, principal of, premium, if any, and interest shall be payable on any Variable Rate Series 2022E Subordinate Bond as provided in this Thirty-Second Supplemental Indenture.

Section 403. Determination of Interest Rates.

(a) General.

(i) The Variable Rate Series 2022E Subordinate Bonds may bear interest at any time in any Rate Period, and different subseries may bear interest in different Rate Periods.

(ii) The amount of interest payable with respect to Variable Rate Series 2022E Subordinate Bonds on any Interest Payment Date shall be computed (A) during a Daily Interest Period, Weekly Interest Period, Short-Term Interest Period or Index Rate Period, on the basis of a 365- or 366-day year for the number of days actually elapsed, and (B) during a Fixed Rate Period and any Long-Term Interest Periods, on the basis of a 360-day year of twelve 30-day months. Interest payable on each Interest Payment Date shall be the interest accrued and unpaid from and including the immediately preceding Interest Payment Date to and including the day preceding such Interest Payment Date. Notwithstanding the foregoing, the amount of interest payable with respect to Credit Facility Provider Bonds shall be calculated as provided in the Reimbursement Agreement.

(iii) All determinations of interest rates, amounts of interest payable on the Variable Rate Series 2022E Subordinate Bonds and Rate Periods pursuant to this Thirty-Second Supplemental Indenture shall be conclusive and binding upon the Authority, the Trustee, the Tender Agent, the Credit Facility Provider and the Holders of the Variable Rate Series 2022E Subordinate Bonds to which such rates are applicable. The Authority, the Trustee, the Tender Agent, the Remarketing Agent and the Credit Facility Provider shall not be liable to any Holder for failure to give any notice specified in this Section or for the failure of any Holder to receive any such notice.

(b) Determination by Remarketing Agent.

(i) The interest rate for Daily Rate Bonds, Weekly Rate Bonds, Short-Term Rate Bonds, Long-Term Rate Bonds and, if engaged as Remarketing Agent in connection with the conversion to Fixed Rate Bonds, the Fixed Rate(s), for each Rate Period shall be determined by a Remarketing Agent, to be appointed by the Authority, as the lowest rate of interest that, in the judgment of the Remarketing Agent, would cause the Variable Rate Series 2022E Subordinate Bonds to be sold at a price as of the date of determination equal to the principal amount thereof plus or minus any premium or discount, taking into account Prevailing Market Conditions, provided that in no event will the interest rate on any Variable Rate Series 2022E Subordinate Bonds exceed the Maximum Rate.

(ii) In the event the Remarketing Agent fails for any reason to determine the interest rate for any Rate Period:

(A) If the applicable Variable Rate Series 2022E Subordinate Bonds are bearing interest at a Daily Rate, Weekly Rate or Short-Term Rate, the applicable Variable Rate Series 2022E Subordinate Bonds shall bear interest at a rate equal to the prior week's rate, unless there is a failure by the Remarketing Agent to set the rate for two consecutive Weekly Rate Periods or seven consecutive Daily Rate Periods, in which case the applicable Variable Rate Series 2022E Subordinate Bonds shall bear interest at 105% of the SIFMA Index, until

the Trustee is notified of a new Daily Rate, Weekly Rate or Short-Term Rate, as appropriate, determined by the Remarketing Agent.

(B) If the applicable Variable Rate Series 2022E Subordinate Bonds are bearing interest at a Soft Tender Long-Term Rate the Rate Period shall be converted to a Weekly Rate Period and shall bear interest at the Penalty Rate.

(iii) Notice of the interest rate for each Daily Rate Bond, Weekly Rate Bond, Short-Term Rate Bond, Long-Term Rate Bond and, if engaged as Remarketing Agent in connection with the conversion to Fixed Rate Bonds, the Fixed Rate Bonds, shall be communicated by the Remarketing Agent to the Authority, the Trustee and any Credit Facility Provider by Electronic Means, (a) in the case of Daily Rate Bonds on the date such interest rate is determined by 10:30 a.m., New York City time, and (b) in the case of Weekly Rate Bonds, Short-Term Rate Bonds, Long-Term Rate Bonds or Fixed Rate Bonds, not later than 5:00 p.m., New York City time, on the date such interest rate is determined, and shall be available to Holders after such time, from the Remarketing Agent at its Designated Office and shall also be communicated by the Remarketing Agent to any Holder upon request.

(c) Daily Rates.

(i) Whenever the Variable Rate Series 2022E Subordinate Bonds are to bear interest accruing at a Daily Rate, Daily Interest Periods shall commence on each Business Day and shall extend to, but not include, the next succeeding Business Day.

(ii) The interest rate for each Daily Interest Period shall be effective from and including the commencement date thereof and shall remain in effect to, but not including, the next succeeding Business Day.

(iii) Each such interest rate shall be determined by the Remarketing Agent no later than 10:00 a.m., New York City time, on the commencement date of the Daily Interest Period to which it relates.

(d) Weekly Rates.

(i) Whenever the Variable Rate Series 2022E Subordinate Bonds are to bear interest accruing at a Weekly Rate, Weekly Interest Periods shall commence on Thursday of each week and end on Wednesday of the following week; provided, however, that (A) in the case of a conversion to a Weekly Rate Period, the post-conversion initial Weekly Interest Period for the Variable Rate Series 2022E Subordinate Bonds shall commence on the Conversion Date and end on the next succeeding Wednesday; and (B) in the case of a conversion from a Weekly Rate to a Daily Rate, the last Weekly Interest Period prior to conversion shall end on the last day immediately preceding the Conversion Date.

(ii) The interest rate for each Weekly Interest Period shall be effective from and including the commencement date of such period and shall remain in effect through and including the last day thereof.

(iii) Each such interest rate shall be determined by the Remarketing Agent by 5:00 p.m., New York City time, on the Business Day immediately preceding the commencement date of the Weekly Interest Period to which it relates.

(e) Short-Term Rates. Short-Term Rates on, and Short-Term Interest Periods for, Short-Term Rate Bonds shall be determined as follows:

(i) Each Short-Term Interest Period shall be determined by the Remarketing Agent on the first Business Day of that Short-Term Interest Period as that Short-Term Interest Period which will, in the judgment of the Remarketing Agent, produce the greatest likelihood of the lowest net interest cost; provided that each Short-Term Interest Period (A) shall be from 1 to 270 days in length but shall not exceed the number of days of interest coverage provided by the Credit Facility minus five days, shall not extend beyond the date that is five days before the Expiration Date of the Credit Facility and shall not exceed the remaining number of days prior to the Conversion Date if the Remarketing Agent has given or received notice of any conversion to a different Rate Period, (B) shall commence on a Business Day (except in the case of a conversion to a Short-Term Rate Period, the initial Short-Term Interest Period shall commence on the Conversion Date), shall end on a day preceding a Business Day, and (C) in any event shall end no later than the day preceding the Maturity Date. The Remarketing Agent may, in the reasonable exercise of its judgment, determine a Short-Term Interest Period that results in a Short-Term Rate on the Variable Rate Series 2022E Subordinate Bonds that is higher than would be borne by the Variable Rate Series 2022E Subordinate Bonds with a shorter Short-Term Interest Period in order to increase the likelihood of achieving the lowest net interest cost during the term of the Variable Rate Series 2022E Subordinate Bonds by assuring the effectiveness of such Short-Term Rate for a longer Short-Term Interest Period. The determination of a Short-Term Interest Period by the Remarketing Agent shall be based upon the relative market yields of the Variable Rate Series 2022E Subordinate Bonds and other securities that bear interest at a variable rate or at fixed rates that, in the reasonable exercise of the judgment of the Remarketing Agent are otherwise comparable to the Variable Rate Series 2022E Subordinate Bonds, or any fact or circumstance relating to the Variable Rate Series 2022E Subordinate Bonds or affecting the market for the Variable Rate Series 2022E Subordinate Bonds or affecting such other comparable securities in a manner that, in the reasonable exercise of the judgment of the Remarketing Agent, will affect the market for the Variable Rate Series 2022E Subordinate Bonds. The Remarketing Agent in its discretion, may consider such information and resources as it deems appropriate in making the determinations described in this paragraph, including consultations with the Authority, but the Remarketing Agent's determination of the Short-Term Interest Period will be based solely upon the reasonable exercise of the Remarketing Agent's judgment.

(ii) The interest rate for each Short-Term Interest Period shall be effective from and including the commencement date of that Short-Term Interest Period and shall remain in effect through and including the last day thereof.

(iii) All Short-Term Rate Bonds of a subseries of the Variable Rate Series 2022E Subordinate Bonds shall bear interest accruing at the same Short-Term Rate, and for the same Short-Term Interest Period.

(iv) Each such interest rate shall be determined by the Remarketing Agent by 4:00 p.m., New York City time, on the Business Day immediately preceding the commencement date of the Short-Term Interest Period to which it relates.

(f) Long-Term Rates. A Long-Term Rate for Long-Term Rate Bonds shall be determined for each Long-Term Interest Period as follows:

(i) The interest rate on each Variable Rate Series 2022E Subordinate Bond then being converted shall be the lowest interest rate that will enable such Variable Rate Series 2022E Subordinate Bond, upon conversion, to be remarketed at par or at a premium or discount (plus any accrued interest), taking into account (A) any market premium determined by the Authorized Official to be necessary to fund fees and expenses relating to the conversion and remarketing of the Variable Rate Series 2022E Subordinate Bonds, including fees and expenses relating to a Credit Facility, any deposit to the Debt Service Reserve Fund and any amount owed upon termination of any Hedge Agreement, (B) the principal amortization schedule for the Variable Rate Series 2022E Subordinate Bonds, and (C) current market conditions for bonds that have similar tax status and a comparable credit rating.

(ii) Long-Term Interest Periods shall commence on a Conversion Date and subsequently on an Interest Payment Date which is at least [12 calendar months] after the Conversion Date to a Long-Term Rate Period, and end on the day preceding either the commencement date of the following Long-Term Interest Period or the Conversion Date on which a different Rate Period shall become effective or the Maturity Date; provided, however, that in the case of the Initial Period for the Variable Rate Series 2022E Subordinate Bonds, such period shall commence on the Closing Date and end on October 1, ____.

(iii) The Long-Term Rate for each Long-Term Interest Period shall be effective from and including the commencement date thereof and remain in effect to and including the last day thereof. Each such Long-Term Rate shall be determined on the Business Day immediately preceding the commencement date of such period.

(iv) Long-Term Interest Periods shall not extend to a date beyond the fifth day next preceding the Expiration Date of an applicable Credit Facility; provided, however, that in the case of the Initial Long-Term Rate Period, the Series 2022E Subordinate Bonds shall not be secured by a Credit Facility.

(v) The term of each Long-Term Interest Period shall be specified in writing by the Authority to the Remarketing Agent, the Trustee, the Tender Agent and the Credit Facility Provider, if applicable, at least 20 days before its commencement.

(g) Fixed Rate. The Fixed Rate shall be determined as set forth in this subsection (g). Variable Rate Series 2022E Subordinate Bonds bearing interest at a Fixed Rate may not be converted to any other type of Rate Period pursuant to Section 404.

The Fixed Rate Period shall commence on a Conversion Date and shall extend to the earlier of the date of redemption or the Maturity Date. The Fixed Rate shall be determined (1) by the Remarketing Agent, if the Remarketing Agent is engaged in connection with the

conversion to Fixed Rate Bonds, not later than 12:00 noon, New York City time, on the Business Day prior to the Conversion Date; or (2) set in the firm underwriting or purchase contract described in Section 404(b)(v). Such determination shall be conclusive and binding on the Authority, the Trustee, any Credit Facility Provider and the Holders of the Variable Rate Series 2022E Subordinate Bonds to which such rate shall be applicable.

In determining the amount of interest and principal that shall be payable on the Payment Dates, the Remarketing Agent or the firm of underwriters or recognized institutional investors (the "Firm") underwriting or purchasing the Variable Rate Series 2022E Subordinate Bonds then being converted, as applicable, shall use the following guidelines:

(i) The interest rate on each Variable Rate Series 2022E Subordinate Bond then being converted shall be the lowest interest rate that will enable such Variable Rate Series 2022E Subordinate Bond, upon conversion, to be remarketed at par or at a premium or discount (plus any accrued interest), taking into account (A) any market premium determined by the Authorized Official to be necessary to fund fees and expenses relating to the conversion and remarketing of the Variable Rate Series 2022E Subordinate Bonds, including fees and expenses relating to a Credit Facility, any deposit to the Debt Service Reserve Fund and any amount owed upon termination of any Hedge Agreement, (B) the principal amortization schedule for the Variable Rate Series 2022E Subordinate Bonds, and (C) current market conditions for bonds that have similar tax status and a comparable credit rating; and

(ii) If a Favorable Opinion of Bond Counsel has been obtained, the schedule of principal payments of the Variable Rate Series 2022E Subordinate Bonds may be modified based on a Mandatory Sinking Fund Requirements schedule agreed to by the Authority and the firm that agrees to underwrite or purchase the Variable Rate Series 2022E Subordinate Bonds being converted, in accordance with Section 404(b)(v), and delivered to the Trustee. If a Favorable Opinion of Bond Counsel is not received, all Variable Rate Series 2022E Subordinate Bonds shall mature on the Maturity Date and shall be subject to mandatory sinking fund redemption (or serial maturities pursuant to subparagraph (iii) below) on the dates and in the respective principal amounts established at the time of original delivery of the Variable Rate Series 2022E Subordinate Bonds.

(iii) The foregoing subparagraphs (i) and (ii) notwithstanding, upon provision of a Favorable Opinion of Bond Counsel, Variable Rate Series 2022E Subordinate Bonds may be scheduled to mature serially on October 1 in the years and respective principal amounts agreed to by the Authority and delivered to the Trustee, and the Remarketing Agent may establish more than one Fixed Rate to apply to the Variable Rate Series 2022E Subordinate Bonds being converted to Fixed Rate Bonds, in accordance with this Section, taking into account the scheduled mandatory redemption dates or serial maturity dates to be assigned to the Variable Rate Series 2022E Subordinate Bonds.

(h) Credit Facility Provider Bonds. Notwithstanding the above provisions of this Section, Credit Facility Provider Bonds shall bear interest at the Credit Facility Provider Rate and shall be payable at the times and by such means as provided in the Reimbursement Agreement. The Trustee shall register on its books and records the Credit Facility Provider as the Holder or the pledgee of such Credit Facility Provider Bonds, as directed by such Credit Facility Provider. The Credit Facility Provider Rate shall be supplied in writing to the Trustee

by the Credit Facility Provider. If the Remarketing Agent has notified the Holder of any Credit Facility Provider Bonds that it has located a purchaser for some or all of that Holder's Credit Facility Provider Bonds, then, subject to Section 410, that Holder must deliver those Credit Facility Provider Bonds to the Tender Agent for purchase. Upon such delivery and receipt of the Purchase Price by that Holder, and provided no Event of Default has occurred and is continuing under the Reimbursement Agreement, the Tender Agent shall notify the Trustee that the Variable Rate Series 2022E Subordinate Bonds so purchased are no longer "Credit Facility Provider Bonds" and the Trustee shall note on the registration books for the Variable Rate Series 2022E Subordinate Bonds that those Variable Rate Series 2022E Subordinate Bonds are not Credit Facility Provider Bonds. Notwithstanding anything herein to the contrary, only the Credit Facility Provider or any Holder of Credit Facility Provider Bonds may receive interest on any Variable Rate Series 2022E Subordinate Bonds at the Credit Facility Provider Rate.

For all purposes of the Indenture, payments of principal and interest on the Credit Facility Provider Bonds are secured in the same manner as payments of principal and interest on the Variable Rate Series 2022E Subordinate Bonds. Amounts owed by the Authority to a Credit Facility Provider (including, without limitation, reimbursement obligations) shall be included in the calculation of "Annual Debt Service" under the Indenture if and to the extent required by the Indenture's definition of "Annual Debt Service."

(i) [Reserved].

(j) Index Rates. During any Index Rate Period, a Remarketing Agent shall determine the Applicable Spread that will be used in determining the Index Rate for each Index Interest Period as follows: (i) the Applicable Spread shall be the number of basis points or schedule of basis points as determined by the Remarketing Agent that, when added to the SIFMA Index or the LIBOR Index, as the case may be, would equal the minimum interest rate per annum that would enable the Remarketing Agent to sell the applicable Variable Rate Series 2022E Subordinate Bonds on the first day of such Subsequent Rate Period at a price equal to the principal amount thereof (but subject to the final sentence of this Section 403(j)), plus accrued interest, if any, thereon. The Remarketing Agent shall determine the Applicable Spread for any such Index Rate Period not later than the day preceding the commencement of such Index Rate Period and shall notify the Trustee, the Calculation Agent and the Authority thereof by telephone or such other manner as may be appropriate by not later than 2:00 P.M. New York City time on such date, which notice shall be promptly confirmed in writing. If at any time that the Remarketing Agent is required to determine the Applicable Spread, the Remarketing Agent recommends in writing to the Authority that the Variable Rate Series 2022E Subordinate Bonds may be remarketed at a specified discount from their principal amount that would enable the Authority to achieve a lower net interest cost than if such Variable Rate Series 2022E Subordinate Bonds were remarketed at their principal amount, and if the Authority accepts that recommendation in writing signed by an Authorized Official, then the Remarketing Agent shall determine the Applicable Spread based upon the minimum interest rate per annum that would enable the Remarketing Agent to sell the applicable Variable Rate Series 2022E Subordinate Bonds at the agreed upon discounted price.

(k) Index Rates – General. During any Index Rate Period, the Calculation Agent shall determine the Index Rate on each Computation Date, and such rate shall become effective on the SIFMA Index Reset Date or LIBOR Index Reset Date, as the case may be, next succeeding the Computation Date; provided that in no event will the Index Rate exceed the Maximum Rate. The

Calculation Agent shall (i) upon determining the Index Rate for each week, notify the Authority and the Trustee of such Index Rate by Electronic Means as promptly as practicable, and (ii) no later than the day preceding each Interest Payment Date, provide the Authority and the Trustee with a report that shows all the reset rates for the preceding month. The determination of the Index Rate (absent manifest error) shall be conclusive and binding upon the Authority and the Holders of the Variable Rate Series 2022E Subordinate Bonds. If for any reason the Index Rate shall not be established, the Variable Rate Series 2022E Subordinate Bonds shall bear interest at the Index Rate last in effect until such time as a new Index Rate shall be established pursuant to this Thirty-Second Supplemental Indenture.

Section 404. Conversions Between Rate Periods.

(a) Notice of Conversion. The Authority may, with the prior written consent of the Credit Facility Provider, if any, if the same Credit Facility will secure the Variable Rate Series 2022E Subordinate Bonds before and after the conversion, elect to convert all, but not less than all, of the Variable Rate Series 2022E Subordinate Bonds from one Rate Period to another Rate Period (other than from a Fixed Rate Period) as follows:

(i) Notices by Authority. The Authority shall give written notice of any proposed conversion of some or all Variable Rate Series 2022E Subordinate Bonds to the Trustee, and during an Index Rate Period to the Calculation Agent, not fewer than seven Business Days (14 Business Days in the case of a proposed conversion to a Short-Term Rate Period) prior to the date the notice to affected Holders must be given pursuant to Section 404(a)(ii).

(ii) Notices by Trustee. Upon receipt of the notice specified in Section 404(a)(i), the Trustee shall promptly give written notice of the proposed conversion, via Electronic Means or by written notice, to the Tender Agent, the Remarketing Agent, any Credit Facility Provider and any Rating Agency. The Trustee shall give notice (which may be combined, where applicable, with any notice required by Section 408(d) by first-class mail of the proposed conversion to the affected Holders of the Variable Rate Series 2022E Subordinate Bonds not less than 10 days before the proposed Conversion Date. Such notice shall state:

(A) the proposed Conversion Date and the proposed Rate Period to be effective on such date;

(B) that all or a specified portion of the Variable Rate Series 2022E Subordinate Bonds will be subject to mandatory tender for purchase on the Conversion Date and, if fewer than all;

(C) the conditions, if any, to the conversion pursuant to subsection (b), and the consequences of such conditions not being fulfilled pursuant to subsection (c);

(D) if the Variable Rate Series 2022E Subordinate Bonds are in certificated form, information with respect to required delivery of the Variable Rate Series 2022E Subordinate Bond certificates and payment of the Purchase Price;

(E) the new Interest Payment Dates and Regular Record Dates.

(b) Conditions to Conversion. No conversion of Rate Periods will become effective unless the prior written consent of the Credit Facility Provider, if any, if the same Credit Facility will secure the Variable Rate Series 2022E Subordinate Bonds before and after the conversion, is obtained, and:

(i) If the conversion is from a Short-Term Rate Period, the Trustee has received, prior to the date on which notice of conversion is required to be given to Holders, written confirmation from the Remarketing Agent that it has not established and will not establish any Short-Term Interest Periods extending beyond the day before the Conversion Date; and

(ii) If the conversion is either (A) from a Short-Term Rate Period, a Weekly Rate Period or a Daily Rate Period to a Long-Term Rate Period or a Fixed Rate Period, or (B) from a Long-Term Rate Period to a Short-Term Rate Period, a Weekly Rate Period or a Daily Rate Period, the Authority shall have provided to the Trustee, and the Remarketing Agent, no later than one day before the Conversion Date, a Favorable Opinion of Bond Counsel, which opinion shall be confirmed in writing on the Conversion Date; and

(iii) Any Credit Facility to be held by the Trustee after the Conversion Date shall be in an amount equal to the aggregate principal amount of all of the Outstanding Variable Rate Series 2022E Subordinate Bonds, plus an amount for payment of interest equal to at least (a) 34 days' interest (183 days' interest if the conversion is to Long-Term Rate Bonds or, if the conversion is to Short-Term Rate Bonds, the maximum number of days of a Short-Term Interest Period, as provided in Section 403(e)(i) plus five days), plus in the case of a Credit Facility that does not automatically reinstate coverage for interest following a drawing to pay interest on the Variable Rate Series 2022E Subordinate Bonds, the number of days during which the Variable Rate Series 2022E Subordinate Bonds may continue to bear interest until purchased upon mandatory tender under Section 408(a)(iv) following a drawing in which the Credit Facility Provider may notify the Trustee that interest coverage has not reinstated or (b) in the event that a rating will be maintained on the Variable Rate Series 2022E Subordinate Bonds, then such other number of days of interest as may be required by any Rating Agency; and

(iv) If an Index Rate is in effect prior to the Conversion, the Conversion Date must be on a date that would otherwise be an Interest Payment Date; and

(v) If the conversion is to a Fixed Rate Period, the Authority's written notice pursuant to Section 404(a)(i) shall also be provided to the Remarketing Agent and shall also specify the Conversion Date on which the Fixed Rate Period is to commence, and the Authority shall deliver with such notice any Favorable Opinion of Bond Counsel required pursuant to Section 403(g) and a firm underwriting or purchase contract from a firm, which can be the Remarketing Agent, to underwrite or purchase all of the Variable Rate Series 2022E Subordinate Bonds at a price of 100% of the principal amount thereof at an agreed upon interest rate which such firm certifies is the lowest rate that will permit the Variable Rate Series 2022E Subordinate Bonds to be sold at par on the first day of the Fixed Rate Period and containing a Mandatory Sinking Fund Requirements schedule

prepared in accordance with Section 403(g). Upon receipt by the Trustee of such notice from the Authority, the Trustee shall promptly cause the same information contained in such notice to be delivered to the Tender Agent, any Credit Facility Provider and any Rating Agency. A conversion to the Fixed Interest Rate shall not occur unless the Authority shall also file with the Trustee any Favorable Opinion of Bond Counsel to the same effect dated the Conversion Date; and

(vi) The conversion shall not occur unless the Conversion Date is a date on which the Variable Rate Series 2022E Subordinate Bonds being converted could be redeemed without premium pursuant to Section 501(a); and

(vii) If the conversion is to a Short-Term Rate Period, (A) the Authority must engage, at its expense, a commercial paper trustee and paying agent (the “Issuing Agent”), which may or may not be the Trustee and which shall be reasonably acceptable to the Trustee, any Credit Facility Provider and the Tender Agent, having access to the Depository’s electronic money market issuing and payment system and otherwise eligible to serve as an issuing and paying agent under the Depository’s policies and procedures for the issuance and payment of commercial paper; and (B) the Remarketing Agent must arrange for the execution and delivery to the Depository of its required letter of representation for the eligibility of the Variable Rate Series 2022E Subordinate Bonds in the Short-Term Rate Period in the Depository’s book entry system and the provision of any needed CUSIP numbers; and (C) the Authority shall take all other action needed to comply with the Depository’s requirements applicable to the issuance and payment of the Variable Rate Series 2022E Subordinate Bonds while in the Short-Term Rate Period; and (D) the Authority shall enter into any amendment of this Thirty-Second Supplemental Indenture permitted under the Indenture that is needed to comply with the Depository’s or any Rating Agency’s requirements concerning the issuance and payment of the Variable Rate Series 2022E Subordinate Bonds in the Short-Term Rate Period.

(c) Failure of Conditions to Conversion. In the event any condition precedent to a conversion is not fulfilled, (i) the Conversion Date shall not occur, (ii) the mandatory tender pursuant to Section 408(a)(ii) shall not occur and (iii) the Variable Rate Series 2022E Subordinate Bonds shall continue in the then existing Rate Period with the length of the Rate Period and the interest rate being determined in accordance with Section 403. Notice of withdrawal of a conversion notice shall be given by the Authority to the Trustee, the Remarketing Agent, the Tender Agent and any Credit Facility Provider by telephone, promptly confirmed in writing, and shall thereafter be promptly given to the Holders by the Trustee via Electronic Means or by first-class mail. No failure or cancellation of conversion pursuant to this subsection (c) shall constitute an Event of Default.

Section 405. Tender Agent.

The Trustee is the initial Tender Agent. There shall be a Tender Agent for the Variable Rate Series 2022E Subordinate Bonds as provided in this Section at all times that any Variable Rate Series 2022E Subordinate Bonds are Daily Rate Bonds, Weekly Rate Bonds, Short-Term Rate Bonds, Index Rate Bonds or Long-Term Rate Bonds. The Tender Agent shall be appointed by the Authority and shall be a commercial bank, national association or trust company organized and doing business under the laws of the United States of America or of any state thereof, authorized to exercise corporate trust powers in the State, subject to supervision or

examination by federal or state authority, and authorized to perform all of the duties imposed upon it by this Thirty-Second Supplemental Indenture, and having a combined capital and surplus of at least \$75,000,000. If such corporation or association publishes reports of condition at least annually, pursuant to law or to the requirements of such supervising or examining Authority, then for the purposes of this Section, the combined capital and surplus of such corporation or association shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published.

The Tender Agent shall perform the duties imposed upon the Tender Agent by this Thirty-Second Supplemental Indenture, but only upon the terms and conditions set forth herein, including the following:

(a) hold all Variable Rate Series 2022E Subordinate Bonds delivered to it hereunder in trust for the benefit of the respective Holders which shall have so delivered such Variable Rate Series 2022E Subordinate Bonds until moneys representing the Purchase Price of such Variable Rate Series 2022E Subordinate Bonds shall have been delivered to or for the account of or to the order of such Holders;

(b) hold all moneys delivered to it hereunder for the purchase of Variable Rate Series 2022E Subordinate Bonds in trust solely for the benefit of the Person which shall have so delivered such moneys until the Variable Rate Series 2022E Subordinate Bonds purchased with such moneys shall have been delivered to or for the account of such Person;

(c) hold all moneys, other than proceeds of payments under a Credit Facility, delivered to it hereunder for the purchase of Variable Rate Series 2022E Subordinate Bonds as agent of, and in escrow for the exclusive benefit of, the Person which shall have so delivered such moneys until the Variable Rate Series 2022E Subordinate Bonds purchased with such moneys shall have been delivered to or for the account of such Person;

(d) hold all moneys delivered to it hereunder from payments under a Credit Facility for the purchase of Variable Rate Series 2022E Subordinate Bonds as agent of, and in escrow for the exclusive benefit of, the Holders who shall deliver Variable Rate Series 2022E Subordinate Bonds to it for purchase until the Variable Rate Series 2022E Subordinate Bonds purchased with such moneys shall have been delivered to or for the account of the Credit Facility Provider;

(e) keep such books and records as shall be consistent with customary corporate trust industry practice that shall accurately reflect the transactions hereunder and to make such books and records available for inspection by the Authority, the Trustee, the Remarketing Agent and the Credit Facility Provider during normal business hours upon reasonable prior written notice;

(f) hold all Credit Facility Provider Bonds delivered to it hereunder as agent of, and in escrow for the benefit of, the Credit Facility Provider;

(g) deliver any notices required by this Thirty-Second Supplemental Indenture to be delivered by the Tender Agent; and

(h) perform all other duties of the Tender Agent under this Thirty-Second Supplemental Indenture.

The Tender Agent shall be entitled to reasonable compensation for its services as Tender Agent as agreed upon with the Authority.

The Tender Agent at any time may resign and be discharged of the duties and obligations imposed upon the Tender Agent by this Thirty-Second Supplemental Indenture, by giving written notice thereof to the Authority, the Trustee, the Remarketing Agent and the Credit Facility Provider at least 30 days prior to the effective date of such resignation. The Tender Agent shall resign at any time that it shall cease to be eligible in accordance with the provisions of this Section, effective upon the appointment of and acceptance of such appointment by a successor Tender Agent.

The Tender Agent may be removed at any time by the Authority by an instrument in writing delivered to the Tender Agent, the Trustee, the Remarketing Agent and the Credit Facility Provider.

If the Tender Agent shall resign, be removed or become incapable of acting for any cause, the Authority shall promptly appoint a successor Tender Agent by an instrument in writing delivered to the Trustee, the Remarketing Agent, the Credit Facility Provider, and the retiring Tender Agent. Every such successor Tender Agent appointed pursuant to the provisions of this Section shall meet the eligibility requirements of this Section. No successor Tender Agent shall accept its appointment unless at the time of such acceptance such successor Tender Agent shall be qualified and eligible under this Article.

Every successor Tender Agent appointed hereunder shall execute and deliver to the Authority, the Trustee, the Remarketing Agent, any Credit Facility Provider, and the retiring Tender Agent an instrument accepting such appointment, designating its Designated Office and accepting the duties and obligations imposed upon it hereunder. No resignation or removal of the Tender Agent and no appointment of a successor Tender Agent pursuant to this Section shall become effective until the acceptance of appointment by the successor Tender Agent hereunder.

The Trustee shall give notice of each resignation and each removal of the Tender Agent and each appointment of a successor Tender Agent by mailing written notice of such event by first-class mail, within 30 days of the resignation or removal of the Tender Agent or the appointment of a successor Tender Agent, to the Authority, any Credit Facility Provider, the Remarketing Agent, each Rating Agency and the Holders as their names and addresses appear in the Bond Register maintained by the Trustee. Each notice shall include the name of the successor Tender Agent and the address of its Designated Office.

In the event of the resignation or removal of the Tender Agent, and the appointment of a successor Tender Agent, the retiring Tender Agent shall pay over, assign and deliver any moneys and Variable Rate Series 2022E Subordinate Bonds held by it in such capacity to its successor.

In the event that the Tender Agent shall resign or be removed, or be dissolved, or if the property or affairs of the Tender Agent shall be taken under the control of any state or federal court or administrative body because of bankruptcy or insolvency, or for any other reason, and the Authority shall not have appointed a successor as Tender Agent, the Trustee shall ipso facto be deemed to be the Tender Agent for all purposes of this Thirty-Second Supplemental Indenture until the appointment by the Authority of the successor Tender Agent.

Any corporation or association into which the Tender Agent in its individual capacity may be merged or converted or with which it may be consolidated, or any merger, conversion or consolidation to which the Tender Agent in its individual capacity shall be a party, or any corporation or association to which all or substantially all the corporate trust business of the Tender Agent in its individual capacity may be sold or otherwise transferred, shall be the Tender Agent under this Thirty-Second Supplemental Indenture without further act; provided, that the Tender Agent shall promptly give notice of such action to the Authority, and the Authority shall have 45 days to exercise an option to appoint a successor Tender Agent by an instrument in writing delivered to the Trustee, the Remarketing Agent, the Credit Facility Provider, and the then current Tender Agent. Every such successor Tender Agent appointed pursuant to the provisions of this Section shall meet the eligibility requirements of this Section. No successor Tender Agent shall accept its appointment unless at the time of such acceptance such successor Tender Agent shall be qualified and eligible under this Article.

Section 406. Optional Tenders of Variable Rate Series 2022E Subordinate Bonds in Certain Rate Periods.

(a) Holders of Daily Rate Bonds or Weekly Rate Bonds may elect to have their Variable Rate Series 2022E Subordinate Bonds (other than Credit Facility Provider Bonds or Variable Rate Series 2022E Subordinate Bonds owned by or for the benefit of the Authority), or portions thereof in Authorized Denominations, purchased at the applicable Purchase Price on the following Purchase Dates and, upon the giving of the following Electronic Means or written notices meeting the further requirements set forth in subsection (b) below, provided, however, that so long as the Variable Rate Series 2022E Subordinate Bonds are in book entry form the provisions set forth in Section 402 and the procedures established by the Depository generally for tenders of Variable Rate Series 2022E Subordinate Bonds shall apply with respect to notice of tenders, delivery of Variable Rate Series 2022E Subordinate Bonds, payment of Purchase Price and related matters. If less than all of the Variable Rate Series 2022E Subordinate Bonds of a Holder are tendered for purchase the amount retained by that Holder must be in an Authorized Denomination.

(i) Daily Rate Bonds (other than Credit Facility Provider Bonds or Variable Rate Series 2022E Subordinate Bonds owned by or for the benefit of the Authority) may be tendered for purchase at the Purchase Price payable in immediately available funds on any Business Day upon Electronic Means or written notice of tender to the Tender Agent and the Remarketing Agent not later than 11:00 a.m., New York City time, on the designated Purchase Date.

(ii) Weekly Rate Bonds (other than Credit Facility Provider Bonds or Variable Rate Series 2022E Subordinate Bonds owned by or for the benefit of the Authority) may be tendered for purchase at the Purchase Price payable in immediately available funds on any Business Day upon delivery of a written or Electronic Means notice of tender to the Tender Agent not later than 5:00 p.m., New York City time, on a Business Day not fewer than seven days prior to the designated Purchase Date.

(b) Each notice of tender for Daily Rate Bonds and Weekly Rate Bonds:

(i) shall, in case of a written notice, be delivered to the Tender Agent at its Designated Office and, with respect to Daily Rate Bonds, to the Remarketing Agent at its Designated Office, and be in form satisfactory to the Tender Agent;

(ii) shall state, whether delivered in writing or by Electronic Means, (A) the principal amount of the Daily Rate Bond or Weekly Rate Bond to which the notice relates and the CUSIP number of that Bond, (B) that the Holder irrevocably demands purchase of that Variable Rate Series 2022E Subordinate Bond or a specified portion thereof in an Authorized Denomination, (C) the Purchase Date on which that Variable Rate Series 2022E Subordinate Bond or portion thereof is to be purchased and (D) payment instructions with respect to the Purchase Price; and

(iii) shall automatically constitute, whether delivered in writing or by Electronic Means, (A) an irrevocable offer to sell the Variable Rate Series 2022E Subordinate Bond (or portion thereof) to which such notice relates on the Purchase Date to any purchaser selected by the Remarketing Agent (or to the Credit Facility Provider in the case of purchases made with funds paid under the Credit Facility), at a price equal to the Purchase Price, (B) an irrevocable authorization and instruction to the Tender Agent to effect transfer of such Variable Rate Series 2022E Subordinate Bond (or portion thereof) upon receipt by the Tender Agent of funds sufficient to pay the Purchase Price on the Purchase Date, (C) an irrevocable authorization and instruction to the Tender Agent to effect the exchange of the Variable Rate Series 2022E Subordinate Bond to be purchased in whole or in part for other Variable Rate Series 2022E Subordinate Bonds in an equal aggregate principal amount so as to facilitate the sale of that Variable Rate Series 2022E Subordinate Bond (or portion thereof to be purchased), (D) an acknowledgment that such Holder will have no further rights with respect to that Variable Rate Series 2022E Subordinate Bond (or portion thereof) upon deposit of an amount equal to the Purchase Price thereof with the Tender Agent on the Purchase Date, except for the right of such Holder to receive the Purchase Price upon surrender of that Variable Rate Series 2022E Subordinate Bond to the Tender Agent, and (E) an agreement of such Holder to deliver such Daily Rate Bonds or Weekly Rate Bonds, with all necessary endorsements for transfer and signature guarantees, to the Tender Agent at its Designated Office not later than 1:00 p.m., New York City time, on the Purchase Date.

The determination of the Tender Agent as to whether a notice of tender has been properly delivered pursuant to the foregoing shall be conclusive and binding upon the Holder. The Tender Agent may waive any irregularity or nonconformity in any notice of tender.

(c) Notwithstanding anything to the contrary herein, all Daily Rate Bonds or Weekly Rate Bonds as to which a written notice specifying the Purchase Date has been delivered pursuant to this Section (and which have not been tendered to the Tender Agent) shall be deemed tendered on the Purchase Date specified. From and after the specified Purchase Date of a Variable Rate Series 2022E Subordinate Bond tendered to the Tender Agent or deemed tendered pursuant to this Section, the former Holder of such Variable Rate Series 2022E Subordinate Bond shall be entitled solely to the payment of the applicable Purchase Price of the Variable Rate Series 2022E Subordinate Bond tendered or deemed tendered which Purchase Price shall be payable only as set forth in Section 407(d).

(d) The Tender Agent shall promptly return any notice of tender delivered pursuant to this Section (together with the Variable Rate Series 2022E Subordinate Bonds submitted therewith) that is incomplete or improperly completed or not delivered within the times required by this Section to the Person or Persons submitting such notice.

(e) Notwithstanding the foregoing, if the Variable Rate Series 2022E Subordinate Bonds are held in a book-entry form at the Depository, the right to optionally tender Daily Rate Bonds or Weekly Rate Bonds may be exercised by the beneficial owners of those Variable Rate Series 2022E Subordinate Bonds. Such right shall be exercised by delivery by a beneficial owner to the Tender Agent no later than the times specified in subsection (a) of the notice described in subsection (b) stating that such beneficial owner will cause its beneficial interest (or portion thereof in an Authorized Denomination) to be tendered, the amount of such interest to be tendered, the date on which such interest will be tendered and the identity of the Participant through which the beneficial owner maintains its interest. Upon delivery of such notice, the beneficial owner must make arrangements to have its beneficial ownership interest in the Variable Rate Series 2022E Subordinate Bonds being tendered to the Tender Agent to be transferred on the records of the Depository to the Tender Agent at or prior to 1:00 p.m., New York City time, on the Purchase Date.

Section 407. Purchase Fund; Purchase of Variable Rate Series 2022E Subordinate Bonds by Tender Agent; Procedures and Consequences Related to Inadequate Funds for Purchase Upon Tender.

(a) The Tender Agent shall establish a special trust fund for the Variable Rate Series 2022E Subordinate Bonds to be designated the Purchase Fund. Within the Purchase Fund, the Tender Agent shall establish four separate accounts to be designated the Remarketing Proceeds Account, the Credit Facility Purchase Account, the Authority Purchase Account and the Undelivered Bond Payment Account, each of which shall be an Eligible Account. Only the Tender Agent shall have any right of withdrawal from the Purchase Fund; and the Purchase Fund and such right of withdrawal shall be for the sole and exclusive benefit of the Holders of the Variable Rate Series 2022E Subordinate Bonds subject to purchase on Purchase Dates (and the Credit Facility Provider to the extent provided in subsection (f)); and the Authority and the Holders of Variable Rate Series 2022E Subordinate Bonds not subject to purchase shall have no legal, beneficial or equitable interest in the Purchase Fund. Amounts on deposit in the Purchase Fund shall be held uninvested and without bearing interest. Amounts in a particular account of a Purchase Fund shall not be commingled with amounts in any other account of that Purchase Fund. Any moneys received by the Tender Agent by reason of the remarketing by the Remarketing Agent of any Variable Rate Series 2022E Subordinate Bonds subject to purchase on a Purchase Date shall be deposited by the Tender Agent in the Remarketing Proceeds Account and applied by the Tender Agent in accordance with subsections (d) and (e). Any moneys received by the Tender Agent representing amounts paid by the Credit Facility Provider under the Credit Facility for the purchase of a Variable Rate Series 2022E Subordinate Bond subject to purchase on a Purchase Date shall be deposited by the Tender Agent in the Credit Facility Purchase Account and applied by the Tender Agent in accordance with subsections (d) and (e). Any moneys received by the Tender Agent representing amounts paid by the Authority for the purchase of a Variable Rate Series 2022E Subordinate Bond subject to purchase on a Purchase Date shall be deposited by the Tender Agent in the Authority Purchase Account of the Purchase Fund and applied by the Tender Agent in accordance with subsections (d) and (e). Moneys shall be transferred to the Undelivered Bond Payment Account from the other accounts

of the Purchase Fund or to the Credit Facility Provider in accordance with subsection (e); and moneys shall be applied from the Undelivered Bond Payment Account in accordance with subsection (f) and (g).

(b) Upon receipt of notice, in writing or by any Electronic Means, of tender relating to Daily Rate Bonds, the Tender Agent shall promptly notify the Remarketing Agent, the Authority, the Trustee and any Credit Facility Provider by telephonic notice of the amount of the Variable Rate Series 2022E Subordinate Bonds to be tendered pursuant to such notice. The Tender Agent shall confirm such telephonic notice by Electronic Means by 11:15 a.m., New York City time, on the Purchase Date, with the Tender Agent including in such telephonic notice and the confirmation thereof the amount of the Purchase Price of the Variable Rate Series 2022E Subordinate Bonds and the portion, if any, thereof representing accrued and unpaid interest on such Bonds to the Purchase Date. Upon receipt of notice, in writing or by any Electronic Means, of tender relating to Weekly Rate Bonds, the Tender Agent shall, not later than 5:00 p.m., New York City time, on the next Business Day, send notice of such tender to the Authority, the Remarketing Agent, the Trustee and any Credit Facility Provider by Electronic Means, with the Tender Agent including in such notice the amount of the Purchase Price of the Variable Rate Series 2022E Subordinate Bonds and the portion, if any, thereof representing accrued and unpaid interest on the Variable Rate Series 2022E Subordinate Bonds to the Purchase Date. Simultaneously with giving notice pursuant to Section 408(d) of any mandatory tender of the Variable Rate Series 2022E Subordinate Bonds pursuant to Section 408(a), the Trustee shall give notice by telephone or Electronic Means, promptly confirmed in writing, to the Tender Agent, the Remarketing Agent, any Credit Facility Provider and the Authority specifying the Purchase Date, the aggregate principal amount and Purchase Price of the Variable Rate Series 2022E Subordinate Bonds subject to mandatory tender on such Purchase Date, and the portion, if any, of such Purchase Price representing accrued and unpaid interest on such Variable Rate Series 2022E Subordinate Bonds to such Purchase Date.

(c) Not later than 11:30 a.m., New York City time, on each Purchase Date, the Remarketing Agent shall notify the Trustee, the Tender Agent and any Credit Facility Provider by Electronic Means of (i) the Purchase Price of the Variable Rate Series 2022E Subordinate Bonds to be sold by the Remarketing Agent and (ii) the Purchase Price of the Variable Rate Series 2022E Subordinate Bonds tendered for purchase which will not be sold by the Remarketing Agent, and the Tender Agent shall then determine the amount, if any, by which the Purchase Price of the Variable Rate Series 2022E Subordinate Bonds to be purchased on such Purchase Date exceeds the amount of the proceeds of the remarketing of such Variable Rate Series 2022E Subordinate Bonds by the Remarketing Agent on deposit in the Remarketing Proceeds Account at such time and shall immediately give telephonic or Electronic Means notice of that amount to the Trustee, the Authority and any Credit Facility Provider, which notice shall be promptly confirmed in writing; and

(i) if a Credit Facility is in effect on such Purchase Date, then, except with respect to Credit Facility Provider Bonds held pursuant to Section 411(b) and Variable Rate Series 2022E Subordinate Bonds held by the Authority, (A) the Trustee shall submit in accordance with the terms of the Credit Facility and by such time as is required to receive funds on the Purchase Date for the payment of the Purchase Price, a Credit Facility Request to the Credit Facility Provider requesting the purchase by that Credit Facility Provider under the Credit Facility, or the funding by the Credit Facility Provider under the Credit Facility of moneys for the purchase, of the Variable Rate Series 2022E

Subordinate Bonds at a Purchase Price equal to the amount of the excess of the aggregate Purchase Price over any amounts on hand for payment to tendering Bondholders, and (B) not later than 2:00 p.m., New York City time, on such Purchase Date, the Trustee shall transfer to the Tender Agent and the Tender Agent shall deposit the proceeds of the Credit Facility Request received by the Trustee in the Credit Facility Purchase Account; or

(ii) if no Credit Facility is in effect on such Purchase Date, then (A) not later than 12:30 p.m., New York City time, on such Purchase Date, the Tender Agent shall notify the Authority of the amount of the excess of the aggregate Purchase Price over any amounts on hand for payment to tendering Bondholders, which shall thereupon be payable by the Authority to the Tender Agent for the purpose of causing the Tender Agent to purchase such Bonds on behalf of the Authority, and (B) not later than 2:30 p.m., New York City time, on such Purchase Date, the Tender Agent shall deposit the amount, if any, received by the Tender Agent from the Authority for such purpose in the Authority Purchase Account; provided, however, the Authority has no obligation to deposit moneys in the Authority Purchase Account and has no obligation to purchase tendered Variable Rate Series 2022E Subordinate Bonds.

(d) Not later than 2:30 p.m., New York City time, on each Purchase Date, the Tender Agent shall disburse the Purchase Price of the Variable Rate Series 2022E Subordinate Bonds to be purchased on such Purchase Date to the Holders thereof (upon surrender thereof for payment of such Purchase Price), from the following sources and in the following order of priority:

(i) Moneys on deposit in the Remarketing Proceeds Account (representing the proceeds of the remarketing by the Remarketing Agent of such Variable Rate Series 2022E Subordinate Bonds); and

(ii) If a Credit Facility is in effect on such Purchase Date, moneys on deposit in the Credit Facility Purchase Account (representing the proceeds of a Credit Facility Request); and

(iii) Moneys on deposit in the Authority Purchase Account (representing amounts paid by the Authority to the Tender Agent for the purchase of such Variable Rate Series 2022E Subordinate Bonds). The Authority has no obligation to deposit moneys in the Authority Purchase Account and has no obligation to purchase tendered Variable Rate Series 2022E Subordinate Bonds that are not remarketed.

(e) If the funds available from the sources specified in the preceding clause (d) for the purchase of the Variable Rate Series 2022E Subordinate Bonds subject to purchase on a Purchase Date are insufficient to purchase all of the Variable Rate Series 2022E Subordinate Bonds subject to purchase on such Purchase Date (including Undelivered Bonds), then, no purchase of any of those Variable Rate Series 2022E Subordinate Bonds shall occur on such Purchase Date, and on such Purchase Date, the Tender Agent shall (i) return to the Holders all of such Variable Rate Series 2022E Subordinate Bonds that were tendered, (ii) return all moneys received by the Tender Agent for the purchase of such Variable Rate Series 2022E Subordinate Bonds to the respective Persons that provided such moneys (in the respective amounts in which such moneys were so provided), and (iii) notify the Trustee of the foregoing. If a Credit Facility is in effect with respect to such Variable Rate Series 2022E Subordinate Bonds, and if the Credit

Facility Provider is not in default thereunder, then the failure to purchase the Variable Rate Series 2022E Subordinate Bonds shall cause the Variable Rate Series 2022E Subordinate Bonds to remain outstanding and to bear interest at the Penalty Rate from and after the Purchase Date and until the Purchase Price for all such Variable Rate Series 2022E Subordinate Bonds shall have been paid in full or until they otherwise cease to be Outstanding, but shall not constitute an Event of Default hereunder. Otherwise, (i) if such Variable Rate Series 2022E Subordinate Bonds shall have been designated Hard Tender Index Rate Bonds, then the failure to purchase the Variable Rate Series 2022E Subordinate Bonds shall constitute an Event of Default under Section 903(e), but (ii) if such Variable Rate Series 2022E Subordinate Bonds (a) shall have been designated Soft Tender Index Rate Bonds, or (b) bear interest at a Weekly Rate, Daily Rate or Short-Term Rate, then the failure to purchase the Variable Rate Series 2022E Subordinate Bonds shall not constitute an Event of Default under Section 903(e), and the Variable Rate Series 2022E Subordinate Bonds shall bear interest at the Penalty Rate from and after the Purchase Date and until the Purchase Price for all such Variable Rate Series 2022E Subordinate Bonds shall have been paid in full or until they otherwise cease to be Outstanding.

(f) Any moneys remaining in the Remarketing Proceeds Account, the Credit Facility Purchase Account or the Authority Purchase Account and representing (but not exceeding) the Purchase Price of the Variable Rate Series 2022E Subordinate Bonds subject to purchase on the Purchase Date but not tendered and delivered for purchase on the Purchase Date (following the payments described in subsection (d)) shall be transferred by the Tender Agent to the Undelivered Bond Payment Account not later than 3:30 p.m., New York City time, on the Purchase Date (and retained therein, subject to subsection (a), for application in accordance with subsection (f)). Any moneys remaining in the Remarketing Proceeds Account, the Credit Facility Purchase Account and the Authority Purchase Account on a Purchase Date (after the payments described in subsection (d) and the transfer described in the preceding sentence of this subsection (e)) shall be wire transferred by the Tender Agent, in immediately available funds, prior to the close of business on such Purchase Date, to the Credit Facility Provider, to the extent of any amounts owed to the Credit Facility Provider in respect of a Credit Facility Request, and then to the Authority.

(g) Moneys transferred to the Undelivered Bond Payment Account of the Purchase Fund on any Purchase Date shall be applied, on or after such Purchase Date, by the Tender Agent to pay the Purchase Price of the Undelivered Bonds in respect of which they were so transferred, upon the surrender of such Variable Rate Series 2022E Subordinate Bonds to the Tender Agent for such purpose.

(h) Notwithstanding the foregoing, in the event that the Variable Rate Series 2022E Subordinate Bonds are converted to a Fixed Rate and remarketed at a premium over par, remarketing proceeds received by the Tender Agent in excess of the amount required to pay the Purchase Price of the Variable Rate Series 2022E Subordinate Bonds tendered for purchase shall be delivered by the Tender Agent to the Trustee for deposit in a separate account in the custody of the Trustee. Such excess remarketing proceeds shall be disbursed by the Trustee in accordance with the written directions of an Authorized Official to pay fees and expenses relating to the conversion and remarketing, including any fees and expenses relating to any Credit Facility, to make any required deposit to the Debt Service Reserve Fund, to pay any amount owed upon early termination of any Hedge Agreement and otherwise to apply consistently with the Indenture.

Section 408. Mandatory Tender and Purchase of Variable Rate Series 2022E Subordinate Bonds.

(a) All the Variable Rate Series 2022E Subordinate Bonds shall be subject to mandatory tender for purchase by the Tender Agent at the Purchase Price, as follows:

(i) Short-Term and Long-Term Rate Bonds. Each Short-Term Rate Bond shall be subject to mandatory tender for purchase by the Tender Agent on the first day following the last day of each Short-Term Interest Period applicable to such Short-Term Rate Bond, and each Long-Term Rate Bond shall be subject to mandatory tender for purchase on the first day following the last day of each Long-Term Interest Period; provided that either in the Certificate of Award or in any applicable Notice of Conversion, Long-Term Rate Bonds shall be designated as either Hard Tender Long-Term Rate Bonds or Soft Tender Long-Term Rate Bonds.

(ii) Conversion of Modes. Each subseries of the Variable Rate Series 2022E Subordinate Bonds shall be subject to mandatory tender for purchase by the Tender Agent on each Conversion Date for such subseries.

(iii) Expiration of a Credit Facility, Voluntary Termination of a Credit Facility or Replacement of a Credit Facility With a Substitute Credit Facility. Variable Rate Series 2022E Subordinate Bonds requiring the maintenance of a Credit Facility are subject to mandatory tender for purchase by the Tender Agent (1) on a Business Day selected by the Trustee which shall be at least five days prior to the Expiration Date of the Credit Facility; (2) on a Business Day selected by the Trustee which shall be at least five days prior to the Voluntary Termination Date of the Credit Facility and (3) on each Substitution Date, which shall be at least five days prior to the Expiration Date of the Credit Facility being replaced. Payment of the Purchase Price shall be made from proceeds of remarketing or a draw of moneys upon the Credit Facility that is expiring or being replaced.

(iv) Notice by the Credit Facility Provider. While a Credit Facility is in effect, the Variable Rate Series 2022E Subordinate Bonds are subject to mandatory tender for purchase by the Tender Agent (a) on a Business Day selected by the Trustee that is not more than one Business Day after the Trustee's receipt of notification from that Credit Facility Provider of that Credit Facility Provider's decision to exercise its right of mandatory tender as a result of the occurrence of certain events of default or termination under the Reimbursement Agreement, and (b) on the date designated by the Trustee following receipt by the Trustee of notice from the Credit Facility Provider that the Credit Facility Provider is not reinstating the Credit Facility following a draw, which date shall be a Business Day and shall be not more than one Business Day after the Trustee receives notice of non-reinstatement from the Credit Facility Provider.

(v) Index Rate Bonds Purchase Dates. Variable Rate Series 2022E Subordinate Bonds that are converted to Index Rate Bonds (regardless of whether they are then currently Index Rate Bonds) for any Index Rate Period shall be subject to mandatory tender (A) on the Index Rate Bonds Purchase Date specified in the applicable Notice of Conversion, which shall also specify if such Variable Rate Series 2022E Subordinate Bonds shall be Hard Tender Index Rate Bonds or Soft Tender Index Rate

Bonds, and (B) at the option of the Authority on any Business Day on or after a date specified in the applicable Notice of Conversion.

(b) Variable Rate Series 2022E Subordinate Bonds to be purchased pursuant to subsection (a) shall be delivered by the Holders thereof to the Tender Agent (together with necessary assignments and endorsements) at or prior to 1:00 p.m., New York City time, on the applicable Purchase Date.

(c) Any Variable Rate Series 2022E Subordinate Bonds to be purchased by the Tender Agent pursuant to this Section that are not delivered for purchase on or prior to the Purchase Date, for which there has been irrevocably deposited in trust with the Tender Agent an amount sufficient to pay the Purchase Price of such Variable Rate Series 2022E Subordinate Bonds, shall be deemed to have been delivered to the Tender Agent for purchase, and the Holders of such Variable Rate Series 2022E Subordinate Bonds shall not be entitled to any payment (including any interest to accrue on or after the Purchase Date) other than the respective Purchase Prices of such Variable Rate Series 2022E Subordinate Bonds, and such Variable Rate Series 2022E Subordinate Bonds shall not be entitled to any benefits of the Indenture, except for payment of such Purchase Price out of the moneys deposited for such payment as aforesaid.

(d) In addition to any other requirements set forth in this Thirty-Second Supplemental Indenture, notices of mandatory tender shall be mailed to Holders and shall:

(i) specify the proposed Purchase Date and the event which gives rise to the proposed Purchase Date;

(ii) state that such Variable Rate Series 2022E Subordinate Bonds shall be subject to mandatory tender for purchase on such Purchase Date;

(iii) state that Holders may not elect to retain the Variable Rate Series 2022E Subordinate Bonds subject to mandatory tender;

(iv) state that all of the Variable Rate Series 2022E Subordinate Bonds subject to mandatory tender shall be required to be delivered to the Designated Office of the Tender Agent at or before 1:00 p.m., New York City time, on the Purchase Date;

(v) state that if the Holder of any Variable Rate Series 2022E Subordinate Bonds subject to mandatory tender fails to deliver such Variable Rate Series 2022E Subordinate Bonds to the Tender Agent for purchase on the Purchase Date, and if the Tender Agent is in receipt of funds sufficient to pay the Purchase Price thereof, such Variable Rate Series 2022E Subordinate Bonds shall nevertheless be deemed purchased on the Purchase Date and ownership of such Variable Rate Series 2022E Subordinate Bonds shall be transferred to the purchaser thereof;

(vi) state that any Holder that fails to deliver such Variable Rate Series 2022E Subordinate Bonds for purchase shall have no further rights thereunder or under the Indenture except the right to receive the Purchase Price thereof upon presentation and surrender of such Variable Rate Series 2022E Subordinate Bonds to the Tender Agent and that the Trustee will place a stop transfer against the Variable Rate Series 2022E

Subordinate Bonds subject to mandatory tender registered in the name of such Holder(s) on the registration books;

(vii) in the case of mandatory tender upon any proposed conversion of Variable Rate Series 2022E Subordinate Bonds, state that such conversion and such mandatory tender will not occur if certain events and conditions specified in Section 404(b) do not occur or are not satisfied and summarize those events and conditions; and

(viii) in the case of mandatory tender on a Substitution Date, state the information required by Section 412(d).

(e) Notice of mandatory tender of Variable Rate Series 2022E Subordinate Bonds shall be given by the Trustee via Electronic Means or by first-class mail, to the Holders of the Variable Rate Series 2022E Subordinate Bonds (at their addresses as they appear on the Register as of the date of such notice), and to the Authority, any Remarketing Agent, the Tender Agent and any Credit Facility Provider, as follows. If the mandatory tender is by reason of the events described in clauses (ii) or (iii) of subsection (a), that notice shall be given no fewer than 10 days prior to the Purchase Date. If the mandatory tender is by reason of the events described in clause (iv) of subsection (a), that notice shall be given immediately. No notice of mandatory tender is required to be given when the tender is by reason of clause (i) of subsection (a).

(f) Failure to mail such notice or any defect therein shall not affect the rights or obligations of Holders and the Trustee shall not be liable to any Holder by reason of its failure to mail such notice or any defect therein.

(g) If, following the giving of notice of mandatory tender of Variable Rate Series 2022E Subordinate Bonds, an event occurs which, in accordance with the terms of this Thirty-Second Supplemental Indenture, causes such mandatory tender not to occur, then (i) the Trustee shall so notify the Holders of the Variable Rate Series 2022E Subordinate Bonds (at their addresses as they appear on the Bond Register on the date of such notice), via Electronic Means or by first-class mail, as soon as may be practicable after the Purchase Date, and (ii) the Tender Agent shall return to their Holders any of the Variable Rate Series 2022E Subordinate Bonds tendered to the Tender Agent in connection with such mandatory tender of the Variable Rate Series 2022E Subordinate Bonds.

Section 409. The Remarketing Agent.

(a) Each Remarketing Agent shall perform the duties of the Remarketing Agent pursuant to the Remarketing Agreement and this Thirty-Second Supplemental Indenture. Successor Remarketing Agents may be appointed from time to time by the Authority with the prior written consent of the Credit Facility Provider (which consent shall not be unreasonably withheld), if any. The Remarketing Agents shall be corporations or other legal entities organized and doing business under the laws of the United States of America or of any state thereof, authorized under such laws to perform all duties imposed upon the Remarketing Agents by this Thirty-Second Supplemental Indenture, and shall be either (a) a member of the National Association of Securities Dealers, Inc. and registered as a Municipal Securities Dealer under the Securities Exchange Act of 1934, as amended, or (b) a national banking association, commercial bank or trust company. So long as the Variable Rate Series 2022E Subordinate Bonds are held

in book-entry form at the Depository, each Remarketing Agent must be a Participant in the Depository with respect to the Variable Rate Series 2022E Subordinate Bonds.

(b) Each Remarketing Agent appointed in accordance with this Thirty-Second Supplemental Indenture shall designate its Designated Office and signify its acceptance of the duties and obligations imposed upon it as described herein by a written instrument of acceptance delivered to the Authority, the Trustee, the Tender Agent and any Credit Facility Provider, or by executing and delivering a Remarketing Agreement, in either case under which the Remarketing Agent will agree, particularly:

(i) to hold all moneys delivered to it hereunder for the purchase of the Variable Rate Series 2022E Subordinate Bonds in trust for the exclusive benefit of the Person or Persons that shall have so delivered such moneys until the Variable Rate Series 2022E Subordinate Bonds purchased with such moneys shall have been delivered to or for the account of such Person or Persons;

(ii) to keep such books and records as shall be consistent with prudent industry practice and to make such books and records available for inspection by the Authority, the Trustee, the Tender Agent and the Authority at all reasonable times;

(iii) to determine (A) the Daily Rates, Weekly Rates, Short-Term Rates and Long-Term Rates, and, pursuant to Section 403(j), during any Subsequent Index Rate Period, the Applicable Spread that will be used in determining the Index Rate for each Subsequent Index Interest Period, (B) if engaged as Remarketing Agent in connection with the conversion to Fixed Rate Bonds, the Fixed Rate(s), and give notice of such rates in accordance with Article IV;

(iv) to remarket Daily Rate Bonds, Weekly Rate Bonds, Short-Term Rate Bonds and Long-Term Rate Bonds at rates no higher than the rate of interest available under the Credit Facility, if a Credit Facility secures the Variable Rate Series 2022E Subordinate Bonds, and to remarket Short-Term Rate Bonds and Long-Term Rate Bonds for Short-Term Periods or Long-Term Rate Periods, as appropriate, no longer than interest is available under the Credit Facility if a Credit Facility secures the Variable Rate Series 2022E Subordinate Bonds all in accordance with Section 413;

(v) to offer for sale and use its best efforts to find purchasers for the Variable Rate Series 2022E Subordinate Bonds tendered for purchase, any such sale to be made in accordance with the terms of this Thirty-Second Supplemental Indenture;

(vi) to deliver to the Tender Agent all of the Variable Rate Series 2022E Subordinate Bonds held by it in accordance with the terms of this Thirty-Second Supplemental Indenture and the Remarketing Agreement; and

(vii) to perform such other duties and responsibilities (including with respect to Credit Facility Bonds) as are provided in this Thirty-Second Supplemental Indenture to be performed by a Remarketing Agent.

Notwithstanding the foregoing, a Remarketing Agent may be engaged for only certain types of Rate Periods, and in that event the Remarketing Agent shall not be required to perform the duties of the Remarketing Agent for any other type of Rate Period.

(c) A Remarketing Agent may at any time resign and be discharged of the duties and obligations described in this Thirty-Second Supplemental Indenture by giving at least 60 days' notice to the Authority, the Trustee, the Tender Agent, any Credit Facility Provider and each Rating Agency. A Remarketing Agent may be removed at any time upon the Written Request of the Authority and upon written notice to the Remarketing Agent, the Tender Agent, the Trustee and any Credit Facility Provider; provided, however, that no such resignation or removal shall be or become effective unless and until a successor Remarketing Agent shall have been appointed and accepted such appointment in accordance with subsection (a).

(d) If and so long as no successor Remarketing Agent is appointed by the Authority after the office of a Remarketing Agent becomes vacant, the Tender Agent or Trustee, at the expense of the Authority, may petition a court to appoint a successor Remarketing Agent.

(e) A Remarketing Agent may in good faith hold the Variable Rate Series 2022E Subordinate Bonds or any other form of indebtedness issued by the Authority; own, accept or negotiate any drafts, bills of exchange, acceptances or obligations thereof, and make disbursements therefor and enter into any commercial or business arrangement therewith; all without any liability on the part of the Remarketing Agent for any real or apparent conflict of interest by reason of any such actions.

Section 410. Sale of Variable Rate Series 2022E Subordinate Bonds by Remarketing Agent.

(a) Upon the receipt by a Remarketing Agent of (i) notice of tender of Daily Rate Bonds or Weekly Rate Bonds pursuant to Section 406, or (ii) notice of mandatory tender of the Variable Rate Series 2022E Subordinate Bonds pursuant to Section 408, the Remarketing Agent shall offer for sale and use its best efforts to solicit purchases of Variable Rate Series 2022E Subordinate Bonds subject to purchase on the Purchase Date at a price equal to the applicable purchase price.

(b) A Remarketing Agent shall direct that the proceeds of all purchases of the Variable Rate Series 2022E Subordinate Bonds solicited and arranged by the Remarketing Agent be paid to the Tender Agent (for deposit in the Remarketing Proceeds Account), at or prior to 12:00 p.m., New York City time, on the Purchase Date, in immediately available funds (and, promptly upon receipt thereof, the Tender Agent shall deposit such proceeds in the Remarketing Proceeds Account).

(c) [Reserved].

(d) A Remarketing Agent shall offer for sale and use its best efforts to arrange for the sale and remarketing of all Credit Facility Provider Bonds, prior to the sale and remarketing of any Variable Rate Series 2022E Subordinate Bonds, at a price equal to 100% of the principal amount thereof plus accrued and unpaid interest thereon (at the rate that would be borne by such Credit Facility Provider Bonds if such Credit Facility Provider Bonds were not Credit Facility

Provider Bonds). In connection with each remarketing of Credit Facility Provider Bonds by the Remarketing Agent:

(i) The Remarketing Agent shall (A) provide to the Authority, the Credit Facility Provider, the Trustee and the Tender Agent not less than one Business Day's prior notice of such remarketing, and (B) pay, or cause to be paid to the Credit Facility Provider, by wire transfer of immediately available funds, the proceeds of such remarketing;

(ii) The Trustee shall (A) in consultation with the Credit Facility Provider, calculate the Credit Facility Provider Bonds Purchase Price, (B) in consultation with the Remarketing Agent, determine the amount of remarketing proceeds paid to the Credit Facility Provider by the Remarketing Agent, and (C) pay to the Credit Facility Provider, from moneys in the Debt Service Fund and by wire transfer of immediately available funds, the balance of the Credit Facility Provider Bonds Purchase Price owed to the Credit Facility Provider (representing the difference between the accrued interest on the Credit Facility Provider Bonds paid by the purchaser of the Credit Facility Provider Bonds and the accrued interest on those Credit Facility Provider Bonds at the Credit Facility Provider Rate);

(iii) The Trustee shall confirm with the Credit Facility Provider the receipt by that Credit Facility Provider of the Credit Facility Provider Bonds Purchase Price, the reinstatement of the Credit Facility in respect of such Credit Facility Provider Bonds and the authorization of that Credit Facility Provider to release such Credit Facility Provider Bonds; and

(iv) After, and only after, receipt by the Trustee of confirmation by the Credit Facility Provider of the reinstatement of the Credit Facility to cover such Credit Facility Provider Bonds following remarketing thereof and authorization by that Credit Facility Provider of such transfer or such authentication and delivery, the Trustee shall (A) while a book-entry system is in effect with respect to the Variable Rate Series 2022E Subordinate Bonds, cause the ownership interest in such Credit Facility Provider Bonds to be transferred to or for the benefit of such purchaser or purchasers as are specified by the Remarketing Agent for such purpose, and (B) while a book-entry system is not in effect with the Depository with respect to the Variable Rate Series 2022E Subordinate Bonds, authenticate other Variable Rate Series 2022E Subordinate Bonds in lieu of such Credit Facility Provider Bonds and to deliver the same to or upon the instruction of the Remarketing Agent.

(e) A Remarketing Agent shall offer for sale and use its best efforts to arrange for the sale and remarketing of (i) all Variable Rate Series 2022E Subordinate Bonds subject to purchase on a Purchase Date that are purchased with moneys provided by the Authority to the Tender Agent for such purpose (as described in Section 407(c)(ii)), and (ii) all of the Variable Rate Series 2022E Subordinate Bonds that are purchased by the Authority pursuant to the Credit Facility and not surrendered by the Authority for cancellation.

Section 411. Delivery of Purchased Variable Rate Series 2022E Subordinate Bonds.

(a) Upon application of the moneys described in Section 407(d)(i) to the purchase of Variable Rate Series 2022E Subordinate Bonds on a Purchase Date pursuant to Section 407(d)(i) (and/or to the transfer thereof to the Undelivered Bond Payment Account on a Purchase Date pursuant to Section 407(e)), the Tender Agent shall cause the Trustee to register the transfer of Variable Rate Series 2022E Subordinate Bonds purchased therewith in the names of the purchasers thereof in accordance with information provided by the Remarketing Agent for such purpose and to have such transferred Variable Rate Series 2022E Subordinate Bonds available for delivery against payment therefor.

(b) Upon application of the moneys described in Section 407(d)(ii) to the purchase of Variable Rate Series 2022E Subordinate Bonds on a Purchase Date pursuant to Section 407(d)(ii) (and/or to the transfer thereof to the Undelivered Bond Payment Account on a Purchase Date pursuant to Section 407(e)), (i) the Variable Rate Series 2022E Subordinate Bonds purchased (or, in the case of such transfer, provided to be purchased) with such moneys shall constitute Credit Facility Provider Bonds (unless and until such Variable Rate Series 2022E Subordinate Bonds cease to be Credit Facility Provider Bonds as described in the definition thereof), and (ii) if a book-entry system is in effect with the Depository with respect to the Variable Rate Series 2022E Subordinate Bonds, the ownership interest in such Credit Facility Provider Bonds shall be transferred on the books of the Depository to or for the account of the Tender Agent or a Participant acting on behalf of the Tender Agent and the Tender Agent shall, and shall cause such Participant to, mark its own books and records to reflect the beneficial ownership of such Credit Facility Provider Bonds by the Credit Facility Provider, and (iii) if a book-entry system is not in effect with the Depository with respect to the Variable Rate Series 2022E Subordinate Bonds, such Bonds shall be delivered by the Tender Agent to the Trustee for registration of transfer and shall be registered by the Trustee in the name of the Credit Facility Provider, or any nominee of the Credit Facility Provider, and delivered by the Trustee to the Tender Agent and held by the Tender Agent as the custodian of the Credit Facility Provider. The Tender Agent shall release and redeliver or transfer Credit Facility Provider Bonds (being remarketed by the Remarketing Agent) as provided in Section 410(d). Any other disposition of Credit Facility Provider Bonds shall be made only at the written direction or with the prior written consent of the Credit Facility Provider, subject to receipt by the Trustee of confirmation by the Credit Facility Provider of the reinstatement of the Credit Facility to cover such Credit Facility Provider Bonds.

(c) Upon the application of moneys described in Section 407(d)(iii) to the purchase of Variable Rate Series 2022E Subordinate Bonds on a Purchase Date pursuant to Section 407(d)(iii) (and/or to the transfer thereof to the Undelivered Bond Payment Account on a Purchase Date pursuant to Section 407(e)), the Variable Rate Series 2022E Subordinate Bonds purchased (or, in the case of such transfer, provided to be purchased) with such moneys shall be registered in the name of the Authority and shall, at the direction of the Authority, be delivered to the Trustee for cancellation (and canceled by the Trustee) or delivered to the Tender Agent for the account of the Authority and remarketed in accordance with Section 410(e).

(d) Any Variable Rate Series 2022E Subordinate Bonds canceled by the Trustee pursuant to this Section and any Variable Rate Series 2022E Subordinate Bonds surrendered by the Authority to the Trustee for cancellation shall be allocated to the next succeeding scheduled

mandatory redemption obligation pursuant to Section 501(b) then as a credit against such future scheduled mandatory redemption obligation pursuant to Section 501(c) as the Authority may specify in a Written Request; provided, however, that there shall be first redeemed any Outstanding Credit Facility Provider Bonds. Prior to the Expiration Date, the Trustee shall notify the Credit Facility Provider of the aggregate principal amount of the Variable Rate Series 2022E Subordinate Bonds so canceled and shall submit to the Credit Facility Provider such documents, if any, as are required in accordance with the terms of the Credit Facility to cause the amounts available under the Credit Facility to be reduced in respect of such Variable Rate Series 2022E Subordinate Bonds so canceled.

Section 412. Credit Facility.

(a) The Trustee shall make Credit Facility Requests in accordance with Sections 407(c). The Trustee shall only draw upon a Credit Facility when that Credit Facility is in a stated amount not less than (i) the aggregate principal amount of the Variable Rate Series 2022E Subordinate Bonds, plus (ii) such number of days of interest as may accrue prior to any Interest Payment Date based on the Rate Period then in effect, and the Trustee shall not draw upon a Credit Facility that by its terms is not available during the Rate Period.

(b) The Trustee shall not terminate or reduce the amounts available under a Credit Facility except by reason of the redemption, cancellation and/or defeasance of the Variable Rate Series 2022E Subordinate Bonds, or unless the Authority has properly furnished a Substitute Credit Facility, as provided in Section 413.

(c) The Authority shall maintain a Credit Facility for the Variable Rate Series 2022E Subordinate Bonds in effect in accordance with Section 413 herein at all times it is required to do so by this Section.

(d) The Authority may furnish a Substitute Credit Facility in substitution for any then existing Credit Facility for the Variable Rate Series 2022E Subordinate Bonds upon satisfaction of the conditions set forth in Section 413. The Trustee shall give notice to the Holders of the Variable Rate Series 2022E Subordinate Bonds (at their addresses as they appear on the registration books of the Trustee as of the date of such notice), via Electronic Means or by first-class mail, of the proposed substitution of a Substitute Credit Facility for the Credit Facility then in effect for the Variable Rate Series 2022E Subordinate Bonds and the related Substitution Date (stating the issuer or issuers and the term of such Substitute Credit Facility) at least 10 days prior to such Substitution Date. Such notice shall also constitute the notice of mandatory tender of the Variable Rate Series 2022E Subordinate Bonds on the related Substitution Date; provided, however, that, if the Substitution Date is more than 15 days prior to the Expiration Date of the Credit Facility being replaced, in addition to the information required by Section 408(d), such notice may state that such mandatory tender of the Variable Rate Series 2022E Subordinate Bonds will not occur if, on or prior to the proposed Substitution Date, the Trustee does not receive such Substitute Credit Facility, together with the supporting substitution documents. If, by reason of the conditions to such mandatory tender of the Variable Rate Series 2022E Subordinate Bonds (as stated in such notice), there is no mandatory tender of the Variable Rate Series 2022E Subordinate Bonds on the proposed Substitution Date, (i) the Tender Agent shall so notify the Trustee, (ii) the Trustee shall so notify the Holders of the Variable Rate Series 2022E Subordinate Bonds (at their addresses as they appear on the registration books of the Trustee as of the date of such notice) via Electronic Means or by first-class mail, and (iii) the

Tender Agent shall return to their Holders any of the Variable Rate Series 2022E Subordinate Bonds tendered to the Tender Agent in connection with such mandatory tender of the Variable Rate Series 2022E Subordinate Bonds.

(e) No Credit Facility is required if the requirements of Section 413 are met for the expiration of any Credit Facility without substitution of a Substitute Credit Facility.

Section 413. Substitute Credit Facility.

(a) During any time that Variable Rate Series 2022E Subordinate Bonds are Daily Rate Bonds or Weekly Rate Bonds, the Authority shall maintain a Credit Facility for the Variable Rate Series 2022E Subordinate Bonds under which the Credit Facility Provider is required to purchase or provide funds for the purchase of the Variable Rate Series 2022E Subordinate Bonds tendered for purchase in accordance with this Thirty-Second Supplemental Indenture. The Credit Facility shall be issued by a bank, trust company, national banking association, insurance company or other financial services company or entity or the Authority, in an amount not less than (i) the aggregate principal amount of all Outstanding Variable Rate Series 2022E Subordinate Bonds, plus (ii) an amount equal to at least 34 days' interest on all Outstanding Variable Rate Series 2022E Subordinate Bonds at the Maximum Rate, plus (iii) in the case of a Credit Facility that does not automatically reinstate coverage for interest following a drawing to pay interest on the Variable Rate Series 2022E Subordinate Bonds, the number of days during which the Variable Rate Series 2022E Subordinate Bonds may continue to bear interest until purchased upon mandatory tender under Section 408(a)(iv) following a drawing in which the Credit Facility Provider may notify the Trustee that interest coverage has not reinstated. The Authority will not voluntarily terminate a Credit Facility while Variable Rate Series 2022E Subordinate Bonds are Daily Rate Bonds or Weekly Rate Bonds without at least 30 days' prior written notice to the Trustee and without providing for a Substitute Credit Facility (including the Authority providing its own Credit Facility) prior to the effective date of such termination.

(b) At any time the Authority may furnish a Substitute Credit Facility subject to the following limitations and the other limitations set forth in this Section:

(i) The principal amount of the Substitute Credit Facility must be not less than that required by Section 413(a).

(ii) The term of the Substitute Credit Facility must be at least 90 days.

(iii) On or prior to the effective date of a Substitute Credit Facility, the Authority shall furnish to the Trustee (i) an Opinion or Opinions of Counsel acceptable to the Trustee to the effect that the Credit Facility has been duly authorized, executed and delivered by the Credit Facility Provider and is a valid and binding obligation of the Credit Facility Provider enforceable in accordance with its terms (subject as to enforceability to standard exceptions respecting bankruptcy, insolvency and similar laws and principles of equity) and that the exemption of the Variable Rate Series 2022E Subordinate Bonds (or any securities evidenced thereby) from the registration requirements of the Securities Act of 1933, as amended, and the exemption of the Indenture from qualification under the Trust Indenture Act of 1939, as amended, shall not be impaired by such Substitute Credit Facility or that the registration or qualification

requirements of such acts have been satisfied, and (ii) if such Bonds are then rated, notice from the Rating Agency to the effect that such Rating Agency has reviewed the proposed Substitute Credit Facility and the provision of such Substitute Credit Facility will not, by itself, result in (A) a permanent withdrawal of the rating on the Bonds or (B) a reduction in the then current rating on the Series 2022E Subordinate Bonds.

(iv) The Authority shall give written notice to the Trustee, the Tender Agent, the Credit Facility Provider, the Remarketing Agent and each Rating Agency, not less than 30 days prior to the Substitution Date and not less than 30 days prior to the Expiration Date of a Credit Facility then in effect, specifying that the Authority intends to replace the Credit Facility with a Substitute Credit Facility on or before the Expiration Date of the Credit Facility then in effect.

(v) The Authority shall cause to be delivered to the Trustee not less than 30 days prior to the Expiration Date of an existing Credit Facility a commitment by the Credit Facility Provider that will issue the Substitute Credit Facility. If the Substitution Date for that Substitute Credit Facility is less than 15 days prior to the Expiration Date for the existing Credit Facility, the Authority shall provide the Substitute Credit Facility or an irrevocable commitment therefor together with the opinion described in Section 413(b)(iii) not later than 15 days prior to the Expiration Date.

(vi) If there are outstanding any Credit Facility Provider Bonds, the Substitute Credit Facility must provide for the purchase of those Bonds.

(c) The Authority may provide its own Credit Facility for the Variable Rate Series 2022E Subordinate Bonds if the Authority has agreed to pay the Purchase Price of any tendered Variable Rate Series 2022E Subordinate Bonds itself. As a result, any references herein to the Credit Facility Provider of the Variable Rate Series 2022E Subordinate Bonds or to the Credit Facility of the Variable Rate Series 2022E Subordinate Bonds shall be ignored or shall be construed as referencing the Authority for as long as the Authority has agreed to pay the Purchase Price of any tendered Variable Rate Series 2022E Subordinate Bonds itself. References to a Credit Facility Request or a “draw” or “drawing” (or a similar term) on the Credit Facility, for example, shall be construed in the absence of a Credit Facility to be a notice to the Authority of the need to provide funds for the purchase of the Variable Rate Series 2022E Subordinate Bonds. If the Authority provides its own Credit Facility, then the Variable Rate Series 2022E Subordinate Bonds are subject to mandatory tender under the same terms as that of providing a Substitute Credit Facility herein.

(d) In the case of mandatory tender because of the delivery of a Substitute Credit Facility in substitution for the existing Credit Facility, the Trustee shall submit any necessary Credit Facility Request to the existing Credit Facility Provider on and prior to the Substitution Date and shall not draw upon the Substitute Credit Facility that will become effective on or after such Substitution Date, and the Trustee shall not surrender the existing Credit Facility until the Purchase Price of the Variable Rate Series 2022E Subordinate Bonds has been paid in full.

Section 414. Subrogation Rights of Credit Facility Provider; Credit Facility Provider Bonds; Fees.

(a) To the extent that proceeds of a Credit Facility Request are used to pay principal of or interest on the Variable Rate Series 2022E Subordinate Bonds (“Debt Service Charges”), and the amount of such Credit Facility Request is not subsequently reimbursed to such Credit Facility Provider pursuant to the provisions of the Reimbursement Agreement, as long as the amount of such Credit Facility Request has not been reimbursed, the Credit Facility Provider shall be subrogated to and assigned the rights of and be deemed a subrogee and assignee of the rights of the Holders of those Variable Rate Series 2022E Subordinate Bonds to receive such Debt Service Charges. For purposes of the subrogation and assignment rights of a Credit Facility Provider hereunder, (a) any reference to the Holders of those Variable Rate Series 2022E Subordinate Bonds shall mean the Credit Facility Provider, (b) any Debt Service Charges on the Variable Rate Series 2022E Subordinate Bonds paid with proceeds of the Credit Facility shall be deemed to be unpaid Debt Service Charges payable under and secured as Subordinate Debt by the lien of the Indenture, and (c) the Credit Facility Provider may exercise any rights it would have as Holder of the Variable Rate Series 2022E Subordinate Bonds. The subrogation rights granted to such Credit Facility Provider in this Thirty-Second Supplemental Indenture are not intended to be exclusive of any other remedy or remedies available to a Credit Facility Provider, and such subrogation rights shall be cumulative and in addition to every other remedy given under the Indenture, under the Reimbursement Agreement or under any other agreement or instrument with respect to the reimbursement of moneys paid by a Credit Facility Provider under a Credit Facility or with respect to security for the Reimbursement Obligations, and every other remedy now or hereafter existing at law or in equity. The Trustee, at the expense of the Authority, shall register in the name of the Credit Facility Provider the ownership of that portion of the Variable Rate Series 2022E Subordinate Bonds the principal of which was paid by such Credit Facility Provider from the proceeds of a Credit Facility Request that has not been reimbursed by the Authority in accordance with the Reimbursement Agreement. The Trustee also shall take such action, at the expense of the Authority, as is reasonably necessary to evidence the Credit Facility Provider as the subrogee and assignee of the Holders of the Variable Rate Series 2022E Subordinate Bonds for which interest payments have been made by the Credit Facility Provider from the proceeds of a Credit Facility Request that has not been reimbursed by the Authority in accordance with the Reimbursement Agreement.

(b) To the extent that proceeds of a Credit Facility Request are used to pay the Purchase Price of the Variable Rate Series 2022E Subordinate Bonds and the amount of such Credit Facility Request is not subsequently reimbursed to the Credit Facility Provider pursuant to the provisions of the Reimbursement Agreement, those Variable Rate Series 2022E Subordinate Bonds shall be Credit Facility Provider Bonds, and the transfer and assignment of property to the Trustee pursuant to the granting clauses hereof and in the Indenture, and all covenants, agreement and other obligations of the Trustee to the Holders shall continue to exist and shall run to the benefit of the Credit Facility Provider, and such Credit Facility Provider Bonds shall bear interest and be payable and secured as provided in this Thirty-Second Supplemental Indenture and in the Reimbursement Agreement.

(c) Except as provided in subsections (a) and (b) above, all fees, expenses and other amounts payable by the Authority to the Credit Facility Provider under the Reimbursement Agreement shall be treated as Operating Expenses under the Indenture payable from the Revenue Fund.

Section 415. Credit Facility Provider Deemed Holder of Variable Rate Series 2022E Subordinate Bonds.

Notwithstanding any provision to the contrary in this Thirty-Second Supplemental Indenture, and provided that (a) the Credit Facility Provider is and remains solvent and not a party to any proceeding for the rehabilitation, liquidation, conservation or dissolution of the Credit Facility Provider, (b) the Credit Facility is in full force and effect, and (c) the Credit Facility Provider shall have made and be continuing to make all payments pursuant to Credit Facility Requests, then the Credit Facility Provider shall be deemed to be the Holder of all the Variable Rate Series 2022E Subordinate Bonds and may act in the place of the Holders of the Variable Rate Series 2022E Subordinate Bonds for purposes of making requests and giving directions and consents to the Trustee and exercising any and all other rights which the holders of those Variable Rate Series 2022E Subordinate Bonds would have the power and authority to make, give, or exercise as Holders of Subordinate Debt under Article IX hereof as a result of the occurrence and continuation of an Event of Default, and making or giving any other consent, direction, or approval permitted or required under the Indenture to be made or given by Holders of the Variable Rate Series 2022E Subordinate Bonds.

Section 416. Trustee Provisions.

(a) While any Credit Facility is in effect, the Trustee may seek indemnification pursuant to the Indenture before suffering, taking or omitting any action under the Indenture unless such action is directly related to (i) paying the Purchase Price of or Debt Service Charges on the Variable Rate Series 2022E Subordinate Bonds when due, (ii) submitting Credit Facility Requests, or (iii) exercising its obligations in connection with a mandatory tender of the Variable Rate Series 2022E Subordinate Bonds under Section 408, and (iv) exercising its obligations in connection with the redemption of Variable Rate Series 2022E Subordinate Bonds. The Trustee may not use the proceeds from a Credit Facility Request or remarketing proceeds to pay any fees or costs of the Trustee.

(b) Upon resignation by or removal of the Trustee in accordance with Sections 1106 or 1107 of the Master Indenture, the Trustee shall transfer any Credit Facility to the successor Trustee. Such resignation or removal shall not take effect until the appointment of a successor Trustee and acceptance by the successor Trustee of such trusts as required by Article XI of the Master Indenture and transfer to the successor Trustee of any Credit Facility then outstanding.

(c) While a Credit Facility is in effect with respect to the Variable Rate Series 2022E Subordinate Bonds, the Trustee shall act as Tender Agent for the Variable Rate Series 2022E Subordinate Bonds.

Section 417. Modification of Dates and Times.

Notwithstanding any other provision of this Thirty-Second Supplemental Indenture, and with respect to this Article IV, the dates and times by which notices are to be given and draws, transfers, disbursements and deposits are to be made may be modified upon written approval by the Trustee of a letter of instructions from the Authority, any Credit Facility Provider and the Remarketing Agent setting forth the preferred dates and times and written confirmation from each of the Rating Agencies that have rated the Variable Rate Series 2022E Subordinate Bonds

that such changes will not affect the rating(s) on the Variable Rate Series 2022E Subordinate Bonds.

Section 418. Particular Defeasance Provisions.

(a) If the Variable Rate Series 2022E Subordinate Bonds are to be deemed paid or discharged pursuant to Article XII of the Master Indenture (“Defeased Variable Rate Series 2022E Subordinate Bonds”), and the Rate Period for the Variable Rate Series 2022E Subordinate Bonds ends prior to the maturity or redemption date to which provision for payment of Debt Services Charges is to be made, then for purposes of calculating those Debt Service Charges, interest on the Variable Rate Series 2022E Subordinate Bonds shall be calculated at the Maximum Rate for each day after the end of the Rate Period and prior to such maturity or redemption date. The Defeased Variable Rate Series 2022E Subordinate Bonds will continue to be subject to all payment provisions under this Thirty-Second Supplemental Indenture until and including the maturity or redemption date, as applicable. Debt Service Charges on Defeased Variable Rate Series 2022E Subordinate Bonds subject to a remarketing shall not be paid with proceeds from a draw on a Credit Facility. At such time as the Debt Service Charges are paid on any Defeased Variable Rate Series 2022E Subordinate Bonds that were unsuccessfully remarketed, such Defeased Variable Rate Series 2022E Subordinate Bonds shall be cancelled.

(b) If and to the extent that payment of Debt Service Charges on Variable Rate Series 2022E Subordinate Bonds has been made from a draw on the Credit Facility then, so long as the Authority owes any amounts to the Credit Facility Provider pursuant to the Reimbursement Agreement (as certified in writing by the Credit Facility Provider to the Trustee): (a) the lien of the Indenture shall not be discharged; (b) the Credit Facility Provider shall be subrogated to the extent of such amounts owed by the Authority to that Credit Facility Provider to all rights of the Holders of the Variable Rate Series 2022E Subordinate Bonds to enforce the payment of the Variable Rate Series 2022E Subordinate Bonds from the Net Revenues and all other rights of the Holders under the Variable Rate Series 2022E Subordinate Bonds and the Indenture; (c) the Credit Facility Provider shall be entitled in its own right upon payment in full of Debt Service Charges on the Variable Rate Series 2022E Subordinate Bonds to exercise all rights of enforcement and remedies set forth in Article IX of this Thirty-Second Supplemental Indenture of the Master Indenture; (d) the Holders will be deemed paid to the extent of money drawn by the Trustee under the Credit Facility; and (e) the Trustee shall sign, execute and deliver all documents or instruments and do all things that may be reasonably required by the Credit Facility Provider to effect the Credit Facility Provider’s subrogation of rights of enforcement and remedies set forth in Article IX of this Thirty-Second Supplemental Indenture in accordance with the intent of this Section.

ARTICLE V

REDEMPTION OF VARIABLE RATE SERIES 2022E SUBORDINATE BONDS

Section 501. Redemption of the Variable Rate Series 2022E Subordinate Bonds.

The Variable Rate Series 2022E Subordinate Bonds shall be subject to redemption in Authorized Denominations prior to maturity under the circumstances, in the manner and subject to the conditions provided in this Section and in the form of the Variable Rate Series 2022E Subordinate Bonds.

(a) Optional Redemption. The Variable Rate Series 2022E Subordinate Bonds are subject to redemption and payment prior to maturity, in whole or in part, at the option of the Authority, upon written direction from the Authorized Official to the Trustee, as follows:

(i) Daily Rate Bonds and Weekly Rate Bonds are subject to optional redemption on any date at the redemption price of 100% of the principal amount thereof, plus accrued interest to the redemption date.

(ii) Short-Term Rate Bonds are subject to optional redemption on any Interest Payment Date at the redemption price of 100% of the principal amount thereof, plus accrued interest to the redemption date.

(iii) Long-Term Rate Bonds are subject to optional redemption, on any date or dates specified in the applicable Notice of Conversion (or for the Initial Period, in the Certificate of Award), as an optional redemption date, at a redemption price equal to 100% of the principal amount redeemed, plus interest accrued to the redemption date.

(iv) Index Rate Bonds are subject to optional redemption, in whole or in part, at a redemption price equal to the principal amount of the Index Rate Bonds to be redeemed plus interest accrued to, but not including, the redemption date on any date or dates specified in the applicable Notice of Conversion as an optional redemption date.

(v) Fixed Rate Bonds are subject to optional redemption at any time on and after the no-call period shown below, at the respective redemption prices set out below, plus accrued interest thereon to the redemption date (unless an alternate optional redemption schedule is determined pursuant to this subparagraph (v)):

Period to Final Maturity	No Call Period	Redemption Price
Greater than or equal to 11 Years	8 years	100%
Greater than or equal to 8 years and less than 11 years	6 years	100%
Greater than or equal to 4 years and less than 8 years	3 years	100%
Less than 4 years	No optional redemption	N/A

Notwithstanding the foregoing, if before the first day of a Fixed Rate Period an alternate optional redemption schedule is delivered by the Authority to the Trustee setting forth redemption dates and redemption prices during that Fixed Rate Period together with a certificate of the Remarketing Agent certifying that the redemption terms set forth therein are advantageous for the Remarketing Agent to remarket those Bonds for that period and a Favorable Opinion of Bond Counsel, then the Variable Rate Series 2022E Subordinate Bonds shall be subject to redemption during that period in accordance with that optional redemption schedule rather than the schedule set forth above, provided that ten (10) years shall be the longest period that any Variable Rate Series 2022E Subordinate Bonds shall not be subject to optional redemption.

If a Credit Facility in the form of a direct pay bank letter of credit is in effect for the Variable Rate Series 2022E Subordinate Bonds, the Trustee shall call the Variable Rate Series 2022E Subordinate Bonds for optional redemption only if the Trustee, prior to the mailing of the notice of redemption as provided in Section 502, is entitled to draw on that Credit Facility in an aggregate amount sufficient to pay the redemption price of the Variable Rate Series 2022E Subordinate Bonds called for redemption, plus accrued and unpaid interest.

(b) Mandatory Sinking Fund Redemption Requirements of Variable Rate Series 2022E Subordinate Bonds. The Variable Rate Series 2022E Subordinate Bonds shall be redeemed by the Authority on October 1 (or, if the Variable Rate Series 2022E Subordinate Bonds are Daily Rate Bonds or Weekly Rate Bonds and that date is not an Interest Payment Date, on the Interest Payment Date immediately succeeding that date) in the years and the amounts set forth below (the Mandatory Sinking Fund Redemption Requirements) at a redemption price equal to the principal amount thereof plus accrued interest to the redemption date, without premium (subject to any adjustment in connection with a conversion of the interest rate to a Fixed Rate in accordance with this Thirty-Second Supplemental Indenture).

**Mandatory Sinking Fund Redemption Requirements
for Series 2022E Subordinate Bonds**

Year	Amount
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¹ Final Maturity.

(c) Credits Against Scheduled Mandatory Sinking Fund Redemption Requirements. At the option of the Authority, to be exercised by delivery of a certificate of the Authorized Official to the Trustee on or before the 45th day next preceding any scheduled mandatory redemption date, the Authority may (1) deliver to the Trustee for cancellation Variable Rate Series 2022E Subordinate Bonds subject to scheduled mandatory redemption on that date or portions thereof in Authorized Denominations or (2) specify a principal amount of Variable Rate Series 2022E Subordinate Bonds or portions thereof in Authorized Denominations which prior to that date have been purchased or redeemed (otherwise than pursuant to this Section) and canceled by the Trustee at the request of the Authority and not theretofore applied as a credit against any scheduled mandatory redemption payment of Variable Rate Series 2022E Subordinate Bonds. Each Variable Rate Series 2022E Subordinate Bond or portion thereof so delivered or previously redeemed shall be credited by the Trustee at the principal amount thereof against the obligation of the Authority to redeem Variable Rate Series 2022E Subordinate Bonds on the scheduled mandatory redemption date or dates designated in writing to the Trustee by the Authorized Official occurring at least 45 days after delivery of such designation to the Trustee, provided that if no such designation is made, such credit shall not be credited against such obligation.

(d) Special Mandatory Redemption of Credit Facility Provider Bonds. Credit Facility Provider Bonds shall be subject to special mandatory redemption upon the written direction to the Trustee from the Credit Facility Provider on the date and in the amount set forth in the Reimbursement Agreement with respect to any required principal amortization of Credit Facility Provider Bonds or upon an event of default under the Reimbursement Agreement.

Section 502. Notice of Redemption.

The Trustee shall cause notice of any redemption of Variable Rate Series 2022E Subordinate Bonds to be (i) mailed to the Holders of all Variable Rate Series 2022E Subordinate Bonds to be redeemed at the registered addresses appearing in the Register, (ii) transmitted by Electronic Means to each Depository and to the Electronic Municipal Market Access system of the Municipal Securities Rulemaking Board; provided however, failure to deliver notice as described in (ii) shall not affect the validity of the redemption of any Variable Rate Series 2022E Subordinate Bond. Each such notice shall (i) be sent not more than 45 nor fewer than 15 calendar days (30 days for Long-Term Rate Bonds or Fixed Rate Bonds) prior to the date fixed for redemption, (ii) identify the Bonds to be redeemed (specifying the CUSIP numbers, if any, assigned to the Variable Rate Series 2022E Subordinate Bonds), (iii) specify the redemption date and the redemption price, (iv) set forth the name, address and telephone number of the person from whom information pertaining to the redemption may be obtained, and (v) state that on the redemption date the Variable Rate Series 2022E Subordinate Bonds called for redemption will be payable at the Designated Office of the Trustee, that from that date interest will cease to accrue, and that no representation is made as to the accuracy or correctness of the CUSIP numbers printed therein or on the Variable Rate Series 2022E Subordinate Bonds. No defect affecting any Variable Rate Series 2022E Subordinate Bond, whether in the notice of redemption

or the delivery thereof (including any failure to mail such notice), shall affect the validity of the redemption proceedings for any other Variable Rate Series 2022E Subordinate Bonds.

If at the time of mailing of notice of an optional redemption of Variable Rate Series 2022E Subordinate Bonds there has not been deposited with the Trustee moneys sufficient to redeem all Variable Rate Series 2022E Subordinate Bonds called for such redemption, then such notice shall state that the redemption is conditional upon the deposit of moneys sufficient for the redemption with the Trustee and satisfaction of such requirements not later than the opening of business on the redemption date, and such notice will be of no effect and such Variable Rate Series 2022E Subordinate Bonds shall not be redeemed unless such moneys or such Direct Obligations are so deposited.

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.

Section 503. Partial Redemption.

If fewer than all of the Variable Rate Series 2022E Subordinate Bonds that are stated to mature on different dates are called for redemption at one time, those Variable Rate Series 2022E Subordinate Bonds that are called shall be designated by the Authority; provided, that there shall be first redeemed any Credit Facility Provider Bonds. If fewer than all of the Variable Rate Series 2022E Subordinate Bonds of a single maturity are to be redeemed, the selection of the Variable Rate Series 2022E Subordinate Bonds to be redeemed, or portions thereof in amounts of \$5,000 or any integral multiple thereof, so long as the Variable Rate Series 2022E Subordinate Bonds remain in book-entry form, shall be made by the Depository (or any successor Depository) in accordance with the Depository's procedures and otherwise will be made as specified by and selected at the sole discretion of the Authority. In the case of a partial redemption of the Variable Rate Series 2022E Subordinate Bonds by lot when the Variable Rate Series 2022E Subordinate Bonds of Authorized Denominations greater than \$5,000 are then outstanding, each \$5,000 unit of principal thereof shall be treated as though it were a separate Variable Rate Series 2022E Subordinate Bond of the denomination of \$5,000.

If it is determined that one or more, but not all of the \$5,000 units of principal amount represented by a Variable Rate Series 2022E Subordinate Bond are to be called for redemption, then upon notice of redemption of a \$5,000 unit or units the Holder of that Variable Rate Series 2022E Subordinate Bond may, but is not required to surrender the Variable Rate Series 2022E Subordinate Bond to the Trustee (a) for payment of the redemption price of the \$5,000 unit or units called for redemption (including without limitation, the interest accrued to the date fixed for redemption and any premium), and (b) for issuance, without charge to the Holder thereof, of a new Variable Rate Series 2022E Subordinate Bond or Bonds, of any authorized denomination or denominations in an aggregate principal amount equal to the unmatured and unredeemed portion of, and bearing interest at the same rate and maturing on the same date or dates as, the Variable Rate Series 2022E Subordinate Bond surrendered.

Section 504. Payment of Redeemed Variable Rate Series 2022E Subordinate Bonds.

Notice having been mailed in the manner provided in Section 502, and moneys having been deposited with the Trustee sufficient to pay the redemption price, the Variable Rate Series 2022E Subordinate Bonds and portions thereof called for redemption shall become due and payable on the redemption date, and upon presentation and surrender thereof at the place or places specified in that notice, shall be paid at the redemption price, plus interest accrued to the redemption date.

If the moneys for the redemption of all of the Variable Rate Series 2022E Subordinate Bonds and portions thereof to be redeemed, together with interest accrued thereon to the redemption date, is held by the Trustee on the redemption date, so as to be available therefor on that date and if notice of redemption has been deposited in the mail as aforesaid, then from and after the redemption date those Variable Rate Series 2022E Subordinate Bonds and portions thereof called for redemption shall cease to bear interest and no longer shall be considered to be Outstanding under the Indenture. If those moneys shall not be so available on the redemption date, or that notice shall not have been deposited in the mail as aforesaid, those Variable Rate Series 2022E Subordinate Bonds and portions thereof shall continue to bear interest, until they are paid, at the same rate as they would have borne had they not been called for redemption.

All moneys held by the Trustee for the redemption of particular Variable Rate Series 2022E Subordinate Bonds shall be held in trust for the account of the Holders thereof and shall be paid to them, respectively, upon presentation and surrender of those Variable Rate Series 2022E Subordinate Bonds.

Section 505. Purchase in Lieu of Redemption.

By their acceptance of the Variable Rate Series 2022E Subordinate Bonds, the Holders irrevocably grant to the Authority the option to purchase any Variable Rate Series 2022E Subordinate Bond which is redeemable by optional redemption on any date on which the Variable Rate Series 2022E Subordinate Bond is redeemable at a purchase price no less than the redemption price to be paid to Holders upon optional redemption. The Authority may exercise such option by delivering written direction to the Trustee in time for the Trustee thereupon to give the Holders of the Variable Rate Series 2022E Subordinate Bonds to be purchased notice of such purchase in the manner specified in the Indenture as though such purchase were a redemption, and the Trustee shall thereupon do so, and the purchase of such Variable Rate Series 2022E Subordinate Bonds shall be mandatory and enforceable against the Holders. On the date fixed for purchase pursuant to any exercise of such option, the Authority shall pay the purchase price of the Variable Rate Series 2022E Subordinate Bonds then being purchased to the Trustee in immediately available funds, and the Trustee shall pay the same to the Holders of such Variable Rate Series 2022E Subordinate Bonds against delivery. Following such purchase, the Trustee shall cause such Variable Rate Series 2022E Subordinate Bonds to be registered in the name of the Authority or its nominee and shall deliver them to the Authority or its nominee. In the case of the purchase of less than all of the Variable Rate Series 2022E Subordinate Bonds, the particular Variable Rate Series 2022E Subordinate Bonds to be purchased shall be selected in accordance with the provisions of the Master Indenture as though such purchase were a redemption; or in such other manner as the Authority shall direct, provided such selection method is described in the Written Request to the Trustee. No purchase of Variable Rate Series

2022E Subordinate Bonds pursuant to this paragraph shall operate to extinguish the indebtedness evidenced by the purchased Variable Rate Series 2022E Subordinate Bonds. Notwithstanding the foregoing, no purchase shall be made pursuant to the provisions of this paragraph unless the Authority shall have delivered to the Trustee concurrently therewith a Favorable Opinion of Bond Counsel with respect to such purchase.

ARTICLE VI

APPLICATION OF PROCEEDS OF SERIES 2022E SUBORDINATE BONDS

(a) The net proceeds of the Series 2022E Subordinate Bonds in the amount of \$_____, which represents the par amount of the Series 2022E Subordinate Bonds (\$_____), minus the underwriters' discount (\$_____), and plus original issue premium (\$_____) by the Original Purchasers, at the request and direction of the Authority shall be applied as follows:

(1) \$_____ shall be deposited in the Series 2022E Construction Account of the Construction Fund and used to pay Costs of the System.

(2) \$_____ shall be deposited in the Series 2022E Costs of Issuance Subaccount of the Series 2022E Construction Account of the Construction Fund and used to pay costs of issuance.

ARTICLE VII

FUNDS AND ACCOUNTS

Section 701. Series 2022E Construction Account.

In the Construction Fund, there shall be established a Series 2022E Construction Account and, within that Account, a Series 2022E Costs of Issuance Subaccount. The portions of the proceeds of the Series 2022E Subordinate Bonds specified in Section 601(a)(2) shall be deposited in the Series 2022E Costs of Issuance Subaccount and used to pay costs of issuance related to the Series 2022E Subordinate Bonds. When all costs of issuance have been paid or moneys have been reserved to pay all remaining unpaid costs of issuance, the balance of any Series 2022E Subordinate Bond proceeds remaining in excess of the amount to be reserved for payment of unpaid costs of issuance shall, as directed by the Authority, either (i) be deposited in the Series 2022E Construction Account of the Construction Fund and used to pay Costs of the System, or (ii) be deposited in the Subordinate Bond Fund to be used solely to pay principal of and interest on the Series 2022E Subordinate Bonds, in either case subject to the condition of a Favorable Opinion of Bond Counsel.

In connection with the Authority's causing a Credit Facility to be delivered to the Trustee, the Trustee shall establish a Credit Facility Account for the purpose of receiving and disbursing such funds as are required to be paid to the Credit Facility Provider other than those funds required to be paid from the Series 2022E Subordinate Bonds Interest Subaccount.

Section 702. Series 2022E Subordinate Bonds Subaccounts in the Subordinate Interest Account and Subordinate Principal Account.

(a) Within the Subordinate Interest Account there shall be established a “Series 2022E Subordinate Bonds Interest Subaccount.” Within the Subordinate Principal Account there shall be established a “Series 2022E Subordinate Bonds Principal Subaccount.”

(b) In accordance with Section 604(e) of the Master Indenture, Net Revenues shall be deposited in the Series 2022E Subordinate Bond Interest Subaccount (i) on or prior to the last Business Day of each of the six months prior to any month in which an Interest Payment Date occurs for any Series 2022E Subordinate Bond that bears interest payable semi-annually, in an amount equal to one-sixth (1/6) of the interest due and payable on such Series 2022E Subordinate Bonds on such Interest Payment Date; and (ii) on or prior to the last Business Day of each of the six months prior to any month in which an Interest Payment Date occurs for any Series 2022E Subordinate Bond that bears interest more frequently than semi-annually, in an amount equal to the interest due and payable on such Series 2022E Subordinate Bonds on such Interest Payment Date.

(c) In accordance with Section 604(e) of the Master Indenture, Net Revenues shall be deposited in the Series 2022E Subordinate Bonds Principal Subaccount (i) on or prior to the last Business Day of each of the twelve months prior to any month in which principal of Series 2022E Subordinate Bonds is payable on their stated maturity date or pursuant to mandatory redemption requirements, in an amount equal to one-twelfth (1/12) of the principal amount scheduled to be due and payable on the Series 2022E Subordinate Bonds in such month; and (ii) on or prior to the last Business Day of each month prior to any month in which principal of Series 2022E Subordinate Bonds is payable on their stated maturity date or pursuant to mandatory redemption requirements, any amount that may be required to supplement the amounts deposited therein pursuant to the preceding clause (i) to cause the balance in the Series 2022E Subordinate Bonds Principal Subaccount to suffice for the payment of the principal due on that maturity or mandatory redemption date.

ARTICLE VIII

SECURITY FOR SERIES 2022E SUBORDINATE BONDS

Section 801. Security for Series 2022E Subordinate Bonds.

The Series 2022E Subordinate Bonds shall be secured as Subordinate Debt under the Indenture, including, without limitation, by a pledge of: (i) Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures Subordinate Debt, including, without limitation, any other Subordinate Debt that the Authority may issue in the future, without preference, priority or distinction of any Series 2022E Subordinate Bond over any other Series 2022E Subordinate Bond or of any Subordinate Debt over any other Subordinate Debt, as provided in the Indenture; and (ii) the moneys and Permitted Investments in the Subordinate Bond Fund on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, any other Subordinate Debt that the Authority may issue in the future, without preference, priority or distinction of any Series 2022E Subordinate Bond over any other Series 2022E Subordinate Bond or of any Subordinate Debt over any other Subordinate Debt, as provided in the Indenture.

ARTICLE IX

DEFAULTS AND REMEDIES

Section 901. Application of Article IX and Other Remedies Provisions of the Master Indenture.

The Series 2022E Subordinate Bonds do not constitute “Bonds” under the Master Indenture. Accordingly, the provision of Article IX of the Master Indenture that confer certain rights upon the Holders of Bonds or a specified percentage thereof do not apply to the Series 2022E Subordinate Bonds or to the Series 2022E Subordinate Bondholders. Pursuant to Section 305 of the Master Indenture, the Series 2022E Subordinate Bonds, as Subordinate Debt, may not be accelerated if any Senior Debt is outstanding.

Section 902. Rights of Series 2022E Subordinate Bondholders Upon Occurrence of Events of Default.

In addition to and in furtherance and implementation of the rights that Series 2022E Subordinate Bondholders have under the penultimate paragraph of Section 906 of the Master Indenture, Sections 903 through 911, inclusive, of this Thirty-Second Supplemental Indenture shall apply to the Series 2022E Subordinate Bonds.

Section 903. Events of Default.

Each of the following events shall be a Series 2022E Subordinate Bond Event of Default:

(a) Default in the due and punctual payment of the principal of or premium, if any, on any Series 2022E Subordinate Bond (whether at maturity or call for redemption);

(b) Default in the due and punctual payment of the interest on any Series 2022E Subordinate Bond;

(c) Failure of the Authority to make the deposits required by subsection (e) or subsection (f) of Section 604 of the Master Indenture at the time and in the amount required from Net Revenues available for such deposit under the Indenture; or

(d) Failure of the Trustee to apply moneys in accordance with the penultimate paragraph of Section 906 of the Master Indenture.

(e) If the Series 2022E Subordinate Bonds are Index Rate Bonds and have been designated Hard Tender Index Rate Bonds, default in the due and punctual payment of the Purchase Price of any Series 2022E Subordinate Bond.

(f) If the Series 2022E Subordinate Bonds are Long-Term Rate Bonds and have been designated Hard Tender Long-Term Rate Bonds, default in the due and punctual payment of the Purchase Price of any such Series 2022E Subordinate Bonds.

Section 904. Remedies of Series 2022E Subordinate Bondholders.

Upon the occurrence and continuation of a Series 2022E Subordinate Bond Event of Default, the Trustee may, and if requested by the holders of not less than 25% in aggregate principal amount of outstanding Series 2022E Subordinate Bonds and if indemnified to its reasonable satisfaction, shall proceed to protect and enforce their rights by mandamus or other suit, action or proceeding at law or in equity, including an action for specific performance.

No remedy conferred by this Indenture upon or reserved to the Trustee and Series 2022E Subordinate Bondholders is intended to be exclusive of any other remedy, but each such remedy shall be cumulative and shall be in addition to any other remedy given to the Trustee and Series 2022E Subordinate Bondholders hereunder or now or hereafter existing at law, in equity or by statute.

No delay or omission to exercise any right or power accruing upon any default or Series 2022E Subordinate Bond Event of Default shall impair any such right or power or shall be construed to be a waiver of any such default or Series 2022E Subordinate Bond Event of Default or acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient.

No waiver of any default or Series 2022E Subordinate Bond Event of Default hereunder by the Trustee or Series 2022E Subordinate Bondholders shall extend to or shall affect any subsequent Series 2022E Subordinate Bond Event of Default or shall impair any rights or remedies consequent thereon.

The Authority agrees that the Trustee in its name or in the name of the Authority may, in the manner and to the extent provided herein, enforce all rights of the Trustee and of the Authority and all obligations of the Credit Facility Provider (including the obligation of the Credit Facility Provider to honor drafts duly presented in accordance with the terms and conditions of the Credit Facility) under and pursuant to the Credit Facility, for the benefit of the Series 2022E Subordinate Bondholders. The Trustee agrees to assume and perform the duties and obligations contemplated under the Credit Facility to be assumed and performed by the Trustee.

If a Credit Facility is in effect, and if the provider thereof has failed to honor its payment obligations under the Credit Facility, twenty five percent (25%) of the Series 2022E Subordinate Bondholders enhanced by such Credit Facility (excluding Series 2022E Subordinate Bonds owned by the Authority and Bank Bonds), shall have the right at any time, by an instrument or instruments in writing executed and delivered to the Trustee, 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 Credit Facility, or any other proceedings thereunder; provided that such direction shall be in accordance with applicable law.

In the event the Credit Facility Provider wrongfully dishonors a conforming drawing for any payment with respect to the Series 2022E Subordinate Bonds or the Credit Facility Provider repudiates such obligation, the Trustee agrees to take all reasonable steps to enforce the obligation of the Credit Facility Provider to honor drafts duly presented in accordance with the

terms and conditions of the Credit Facility for the benefit of the Series 2022E Subordinate Bondholders.

Section 905. Right of Series 2022E Subordinate Bondholders to Direct Proceedings.

The holders of a majority in aggregate principal amount of Series 2022E Subordinate Bonds then outstanding shall have the right, at any time, by an instrument or instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all proceedings to be taken in connection with the enforcement of the terms and conditions of this Thirty-Second Supplemental Indenture or any other proceedings hereunder, provided, however, that such direction shall not be otherwise than in accordance with the provisions of law and of the Indenture.

Section 906. Application of Moneys.

All moneys received by the Trustee pursuant to any right given or action taken under the provisions of this Article shall, after payment of the cost and expenses of the proceedings resulting in the collection of such moneys, the expenses, liabilities and advances incurred or reasonably anticipated to be made by the Trustee, and its fees and the expenses of the Authority in carrying out this Thirty-Second Supplemental Indenture, be deposited in the Series 2022E Subordinate Bonds Interest Subaccount or the Series 2022E Subordinate Bonds Principal Subaccount, as the case may be, and applied as follows and for no other purpose:

(a) All such moneys shall be applied:

First - To the payment to the persons entitled thereto of all installments of interest then due on the Series 2022E Subordinate Bonds, in the order of the maturity of the installments of such interest and, if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Series 2022E Subordinate Bonds; and

Second - To the payment to the persons entitled thereto of the unpaid principal of and premium, if any, on any of the Series 2022E Subordinate Bonds which shall have become due (other than Series 2022E Subordinate Bonds called for redemption for the payment of which moneys are held pursuant to the provisions of the Indenture), in the order of their due dates, and, if the amount available shall not be sufficient to pay in full Series 2022E Subordinate Bonds due on any particular date, then to the payment of such principal and premium, if any, ratably, according to the amount of such principal due on such date, to the persons entitled thereto, without any discrimination or preference.

For purposes of paragraphs First and Second above, the interest component of any Purchase Price payable by the Authority shall be treated as interest, and the principal component of any Purchase Price payable by the Authority shall be treated as principal.

(b) Whenever moneys are to be applied pursuant to the provisions of this Section, such moneys shall be applied at such times and from time to time as the Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Trustee shall apply such moneys, it shall fix the date (which shall be an Interest Payment Date unless it shall deem another date more suitable) on which such application is to be made and on such date interest shall cease to accrue on the amounts of principal to be paid. The Trustee shall give such notice as it may deem appropriate of the deposit with it of any such moneys and of the fixing of any such date.

Section 907. Remedies Vested in Trustee.

All rights of action (including the right to file proof of claims) under this Thirty-Second Supplemental Indenture or under any of the Series 2022E Subordinate Bonds may be enforced by the Trustee without the possession of any of the Series 2022E Subordinate Bonds or the production thereof in any trial or other proceeding relating thereto and any such suit or proceeding instituted by the Trustee may be brought in its name as Trustee without the necessity of joining as plaintiffs or defendants any Series 2022E Subordinate Bondholders, and any recovery of judgment shall be for the equal benefit of the Series 2022E Subordinate Bondholders.

Section 908. Limitation on Suits.

Except to enforce the rights given under Sections 904 and 905 of this Thirty-Second Supplemental Indenture, no Series 2022E Subordinate Bondholder shall have any right to institute any action, suit or proceeding at law or in equity for the enforcement of the Indenture or for the execution of any trust thereof or any other remedy hereunder, unless: (a) a Series 2022E Subordinate Bond Event of Default has occurred and is continuing and the Holders of 25% in aggregate principal amount of Series 2022E Subordinate Bonds then outstanding have made written request to the Trustee and offered it reasonable opportunity either to proceed to exercise the powers hereinbefore granted or to institute such action, suit or proceeding in its own name, (b) such requesting Series 2022E Subordinate Bondholders have offered to the Trustee indemnity as provided in Section 1101(1) of the Master Indenture, (c) the Trustee has thereafter failed or refused to exercise the powers hereinbefore granted, or to institute such action, suit or proceeding in its own name, (d) no direction inconsistent with such written request has been given to the Trustee by the holders of a majority in aggregate principal amount of Series 2022E Subordinate Bonds then outstanding, and (e) notice of such action, suit or proceeding is given to the Trustee; it being understood and intended that no one or more Series 2022E Subordinate Bondholders shall have any right in any manner whatsoever to affect, disturb or prejudice the Indenture by its or their action or to enforce any rights hereunder except in the manner herein provided, and that all proceedings at law or in equity shall be instituted and maintained in the manner herein provided and for the equal benefit of all Series 2022E Subordinate Bondholders then outstanding. The notification, request and offer of indemnity set forth above, at the option of the Trustee, shall be conditions precedent to the execution of the powers and trusts of this Thirty-Second Supplemental Indenture and to any action or cause of action for the enforcement of this Thirty-Second Supplemental Indenture or for any other remedy hereunder.

Section 909. Termination of Proceedings.

In case the Trustee shall have proceeded to enforce any right under this Thirty-Second Supplemental Indenture and such proceedings shall have been discontinued or abandoned for any reason or shall have been determined adversely to the Trustee, then and in every such case the Authority and the Trustee shall be restored to their former positions and rights hereunder, and all rights, remedies and powers of the Trustee shall continue as if no such proceedings had been taken.

Section 910. Waivers of Events of Default.

Subject to the Indenture (including, without limitation, Section 1101 of the Master Indenture), the Trustee may in its discretion waive any Series 2022E Subordinate Bond Event of Default hereunder or any action taken pursuant to any Series 2022E Subordinate Bond Event of Default, and shall do so at the written request of the holders of: (a) a majority in aggregate principal amount of Series 2022E Subordinate Bonds then outstanding in respect of which default in the payment of principal and/or premium, if any, and/or interest exists, or (b) a majority in aggregate principal amount of Series 2022E Subordinate Bonds then outstanding in the case of any other Series 2022E Subordinate Bond Event of Default; provided, however, that there shall not be waived without the written consent of all then Outstanding Series 2022E Subordinate Bondholders (A) any Series 2022E Subordinate Bond Event of Default in the payment of the principal of any Outstanding Series 2022E Subordinate Bonds (whether at maturity or by mandatory redemption or as part of the Purchase Price payable upon mandatory tender), or (B) any default in the payment when due of the interest on any such Series 2022E Subordinate Bonds unless, prior to such waiver or rescission,

(i) there shall have been paid or provided for all arrears of interest with interest, to the extent permitted by law, at the rate borne by the Series 2022E Subordinate Bonds on overdue installments of interest, all arrears of principal and premium, if any, and all expenses of the Trustee in connection with such default, and

(ii) in case of any such waiver or rescission or in the case of any discontinuance, abandonment or adverse determination of any proceeding taken by the Trustee on account of any such default, the Authority, the Trustee, and the Series 2022E Subordinate Bondholders shall be restored to their former positions and rights hereunder respectively.

No such waiver or rescission relating to the Series 2022E Subordinate Bonds shall extend to any subsequent or other default or impair any right consequent thereon.

Section 911. Non-Impairment of Authority's Obligation to Pay Principal, Premium and Interest.

Nothing in this Thirty-Second Supplemental Indenture shall, however, affect or impair the obligation of the Authority to pay the principal of, premium, if any, and interest on each of the Series 2022E Subordinate Bonds to the respective Holders thereof at the time and place, from the source and in the manner specified in the Indenture.

ARTICLE X TAX COVENANTS

Section 1001. Tax Covenants – General.

(i) The Authority covenants that it will use, and will restrict the use and investment of, the proceeds of the Series 2022E Subordinate Bonds in such manner and to such extent as may be necessary so that (a) the Series 2022E Subordinate Bonds will not constitute private activity bonds, arbitrage bonds or hedge bonds under Sections 141, 148 or 149 of the Code, or be treated other than as bonds to which Section 103(a) of the Code applies, and (b) the interest on the Series 2022E Subordinate Bonds will not be treated as an item of tax preference under Section 57 of the Code.

(ii) The Authority further covenants that (a) it will take or cause to be taken such actions that may be required of it for the interest on the Series 2022E Subordinate Bonds to be and remain excluded from gross income for federal income tax purposes, (b) it will not take or authorize to be taken any actions that would adversely affect that exclusion, and (c) it, or persons acting for it, will, among other acts of compliance, (1) apply the proceeds of the Series 2022E Subordinate Bonds to the governmental purposes of the borrowing, (2) restrict the yield on investment property, (3) make timely and adequate payments to the federal government, including but not limited to the required payment of any Rebate Amounts under Section 148(f) of the Code, as further provided in Section 902 hereof, (4) maintain books and records and make calculations and reports, and (5) refrain from certain uses of those proceeds and, as applicable, of property financed with such proceeds, all in such manner and to the extent necessary to assure that exclusion of that interest under the Code.

(iii) The Authorized Representative of the Authority is hereby authorized (a) to make or effect any election, selection, designation, choice, consent, approval or waiver on behalf of the Authority with respect to the Series 2022E Subordinate Bonds as the Authority is permitted to make or give under the federal income tax laws, including, without limitation, any of the elections provided for or available under Section 148 of the Code, for the purpose of assuring, enhancing or protecting favorable tax treatment or status of the Series 2022E Subordinate Bonds or interest thereon or assisting compliance with requirements for that purpose, reducing the burden or expense of such compliance, reducing the rebate amount or payments of penalties, or making payments of special amounts in lieu of making computations to determine, or paying, excess earnings as rebate, or obviating those amounts or payments, as determined by the Authorized Representative of the Authority, which action shall be in writing and signed by the Authorized Representative of the Authority, (b) to take any and all other actions, make or obtain calculations, make payments, and make or give reports, covenants and certifications of and on behalf of the Authority, as may be appropriate to assure the exclusion of interest from gross income and the intended tax status of the Series 2022E Subordinate Bonds, and (c) to give one or more appropriate certificates, for inclusion in the transcript of proceedings for the Series 2022E Subordinate Bonds, setting forth the reasonable expectations of the Authority regarding the amount and use of all the proceeds of the Series 2022E Subordinate Bonds, the facts, circumstances and estimates on which they are based, and other facts and circumstances relevant to the tax treatment of the interest on and the tax status of the Series 2022E Subordinate Bonds.

Section 1002. Calculation and Payment of Rebate.

(i) As used in this Section 1002:

“Bond Year” means the annual period (or such shorter period from the date of issuance of the Series 2022E Subordinate Bonds) provided for the computation of the Rebate Amount for the Series 2022E Subordinate Bonds under Section 148(f) of the Code. The last day of a Bond Year shall be the close of business on the day preceding the anniversary of the issuance of the Series 2022E Subordinate Bonds unless the Authority selects another date on which to end a Bond Year in the manner permitted by the Code, and notifies the Trustee in writing of such selection.

“Computation Date” means:

(i) (a) the last day of each fifth Bond Year while the Series 2022E Subordinate Bonds are outstanding, and (b) the date on which the last Series 2022E Subordinate Bonds are retired, or

(ii) such other date or dates elected by the Authority as may be permitted under the Code for computation of the Rebate Amount.

“Rebate Amount” means, as of any Computation Date, the amount then payable (or payable within 60 days of such date) to the United States pursuant to Section 148(f) of the Code and the applicable Treasury Regulations (final or temporary) thereunder.

(ii) Promptly after each Computation Date, the Authority, or an independent public accounting firm or Bond Counsel engaged by or on behalf of the Authority, shall calculate the Rebate Amount, if any, as of that Computation Date.

(iii) Within 60 days after each Computation Date, and at any other time directed by the Authorized Representative of the Authority, the Authority shall pay to the United States in accordance with Section 148(f), from any lawfully available funds, an amount equal to 90% (or such greater percentage not in excess of 100% as the Authorized Representative of the Authority may determine to pay) of the Rebate Amount determined from the Delivery Date to the end of such fifth Bond Year (but less any portion of the Rebate Amount previously paid to the United States pursuant to this Section). Within 60 days after the payment in full of all outstanding Series 2022E Subordinate Bonds, the Authorized Representative of the Authority, on behalf of the Authority shall pay to the United States in accordance with Section 148(f), from any lawfully available funds, an amount equal to 100% of the Rebate Amount determined from the Delivery Date to the date of such payment in full of all outstanding Series 2022E Subordinate Bonds (but less any portion of the Rebate Amount previously paid to the United States pursuant to this Section 802(iii)).

(iv) The Authority shall keep or provide for the keeping of records of the computations made pursuant to this Section 1002, payments made pursuant to this Section and all original source documents pertaining to the investment of gross proceeds and the expenditure of gross proceeds for at least six years after the maturity or retirement of the Series 2022E Subordinate Bonds.

(v) The Authority, in connection with investments of the proceeds of the Series 2022E Subordinate Bonds in nonpurpose investments, will not pay or agree to pay to a party other than the United States any portion of the Rebate Amount with respect to the Series 2022E Subordinate Bonds through a transaction or series of transactions that reduce the aggregate amount earned on all nonpurpose investments in which gross proceeds of the Series 2022E Subordinate Bonds are invested or that result in a smaller profit or a larger loss than would have resulted in an arm's length transaction in which yield on the Series 2022E Subordinate Bonds was not relevant to the Authority or the other party.

(vi) If the Authority and the Trustee receive a written opinion of Bond Counsel that such action would not adversely affect the exclusion from gross income for federal income tax purposes of interest on the Series 2022E Subordinate Bonds, the Authorized Representative of the Authority may, without the consent of or notice to any bondholders, adopt supplements to this Thirty-Second Supplemental Indenture to the extent necessary or desirable to modify, supplement or replace this Section 1002 consistent with the other covenants of the Authority in this Thirty-Second Supplemental Indenture.

(vii) If at any time the Authority receives a written opinion of Bond Counsel that failure to comply with this Section 1002 or any part of this Section 1002 would not adversely affect the exclusion of interest on the Series 2022E Subordinate Bonds from gross income for federal income tax purposes, the Authority may discontinue compliance with this Section 802 or part of this Section 1002 to the extent set forth in that opinion.

ARTICLE XI

MISCELLANEOUS

Section 1101. Limitation of Rights.

With the exception of rights herein expressly conferred, nothing expressed or mentioned in or to be implied from this Thirty-Second Supplemental Indenture or the Series 2022E Subordinate Bonds is intended or shall be construed to give to any person other than the parties hereto, the Series 2022E Subordinate Bondholders any legal or equitable right, remedy or claim under or in respect to this Thirty-Second Supplemental Indenture or any covenants, conditions and agreements herein contained since this Thirty-Second Supplemental Indenture and all of the covenants, conditions and agreements hereof are intended to be and are for the sole and exclusive benefit of the parties hereto, the Series 2022E Subordinate Bondholders as herein provided.

Section 1102. Severability.

If any provision of this Thirty-Second Supplemental Indenture shall be held invalid by any court of competent jurisdiction, such holding shall not invalidate any other provision hereof, and this Thirty-Second Supplemental Indenture shall be construed and enforced as if such illegal provision had not been contained herein.

Section 1103. Successors and Assigns.

This Thirty-Second Supplemental Indenture shall be binding upon, inure to the benefit of and be enforceable by the parties and their respective successors and assigns.

Section 1104. Limitations on Liability.

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 of Directors of the Authority or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board of Directors of the Authority nor any officer of the Authority executing the Series 2022E Subordinate Bonds shall be liable personally on the Series 2022E Subordinate Bonds or be subject to any personal liability or accountability by reason of the issuance thereof. No member of the Board of Directors of the Authority or officer, employee, agent or advisor of the Authority shall incur any personal liability with respect to any other action taken by him or her pursuant to this Thirty-Second Supplemental Indenture or the Indenture or any other document authorized by the Indenture, provided such member, officer, employee, agent or advisor acts in good faith.

Section 1105. Applicable Law.

This Thirty-Second Supplemental Indenture shall be governed by the applicable laws of the District of Columbia.

Section 1106. Notice of Change.

The Trustee shall give notice to the Rating Agency, at the address or addresses set forth in Article I hereof, of any of the following events:

- (i) a change in the Trustee;
- (ii) a change in the Remarketing Agent;
- (iii) a change in the Tender Agent;
- (iv) the expiration, cancellation, renewal or substitution of the term of the Credit Facility;
- (v) the delivery of a Substitute Credit Facility;
- (vi) an amendment or supplement to the Indenture, a Remarketing Agreement, a Reimbursement Agreement, or the Credit Facility at least fifteen (15) days in advance of the execution thereof;
- (vii) any declaration of acceleration of the Series 2022E Subordinate Bonds pursuant to Section 901;
- (viii) payment or provision therefor of all the Bonds;
- (ix) any conversion of the Interest Period applicable to the Series 2022E Subordinate Bonds; and
- (x) any other event notice of which a Rating Agency may reasonably request.

The Trustee shall have no liability to the Rating Agency or any liability or obligation to any other Person if it shall fail to give such notice.

Section 1107. Counterparts.

This Thirty-Second Supplemental Indenture may be executed in several counterparts, each of which shall be deemed an original and all of which together shall constitute but one and the same instrument.

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IN WITNESS WHEREOF, the Authority and the Trustee have caused this Thirty-Second Supplemental Indenture to be executed in their respective corporate names as of the date first above written.

**DISTRICT OF COLUMBIA WATER
AND SEWER AUTHORITY**

By _____
Chief Financial Officer and Executive Vice
President, Finance and Procurement

**COMPUTERSHARE TRUST COMPANY, N.A.,
AS TRUSTEE**

By _____
Its _____

EXHIBIT A

SERIES 2022E SUBORDINATE BOND FORM

Unless this certificate is presented by an authorized representative of The Depository Trust Company, a New York corporation (“DTC”), to the Authority or its agent for registration of transfer, exchange, or payment, and any certificate is registered in the name of Cede & Co., or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, Cede & Co., has an interest herein.

REGISTERED **AMOUNT**
RC-1 **[\$[par amount]]**

UNITED STATES OF AMERICA

DISTRICT OF COLUMBIA

WATER AND SEWER AUTHORITY

**PUBLIC UTILITY SUBORDINATE LIEN MULTIMODAL REVENUE BOND,
 SERIES 2022E**

INTEREST RATE	MATURITY DATE	DATED DATE	CUSIP
Variable	October 1, 20__	_____, 2022	254845_

REGISTERED OWNER: CEDE & CO.

PRINCIPAL AMOUNT:

The District of Columbia Water and Sewer Authority (the “Authority”), for value received, hereby promises to pay upon surrender hereof at the principal corporate trust office of Computershare Trust Company, N.A., as trustee, or its successor in trust (the “Trustee”), under the Indenture, as hereinafter defined, solely from the sources and as hereinafter provided, to the registered owner hereof, or registered assigns or legal representative, the principal sum stated above on the maturity date stated above, subject to prior redemption as hereinafter provided, and to pay, solely from such sources, interest hereon. Interest is payable by check or draft mailed to the registered owner hereof at its address as it appears on the business day preceding each interest payment date on registration books kept by the Trustee; provided, however, that if the Series 2022E Subordinate Bonds, as hereinafter defined, are registered in the name of a securities depository or its nominee as registered owner or at the option of a registered owner of at least \$1,000,000 of Series 2022E Subordinate Bonds, payment will be made by wire transfer pursuant to the most recent wire instructions received by the Trustee from such registered owner. Principal, premium, if any, and interest are payable in lawful money of the United States of

America. Capitalized terms which are not defined herein shall have the meanings set forth in the Indenture.

Notwithstanding any other provision hereof, this Series 2022E Subordinate Bond is subject to book-entry form maintained by The Depository Trust Company (“DTC”), and the payment of principal, premium, if any, and interest, the providing of notices and other matters shall be made as described in the Authority’s Blanket Letter of Representations to DTC.

This Series 2022E Subordinate Bond is one of an issue of \$[par amount] Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E (the “Series 2022E Subordinate Bonds”) of like date and tenor, except as to number, denomination, rate of interest, privilege of redemption and maturity. The Series 2022E Subordinate Bonds are issued under a Master Indenture of Trust, dated as of April 1, 1998, between the Authority and the Trustee (f.k.a. Norwest Bank, N.A.) (the “Master Indenture”), as amended and supplemented by the Thirty-Second Supplemental Indenture of Trust, dated _____, 2022, between the Authority and the Trustee (the “Thirty-Second Supplemental Indenture”), and as previously amended and supplemented by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, the Fourteenth Supplemental Indenture, the Fifteenth Supplemental Indenture, the Sixteenth Supplemental Indenture, the Seventeenth Supplemental Indenture, the Eighteenth Supplemental Indenture, the Nineteenth Supplemental Indenture, the Twentieth Supplemental Indenture, the Twenty-First Supplemental Indenture, the Twenty-Second Supplemental Indenture, the Twenty-Third Supplemental Indenture, the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture, the Twenty-Sixth Supplemental Indenture, the Twenty-Seventh Supplemental Indenture, the Twenty-Eighth Supplemental Indenture, the Twenty-Ninth Supplemental Indenture and the Thirtieth Supplemental Indenture all as defined in the Thirty-Second Supplemental Indenture (the “Indenture”). The Series 2022E Subordinate Bonds are secured under the Indenture as Subordinate Debt by a pledge of Net Revenues subordinate to the pledge that secures Senior Debt and on a parity with the pledge that secures other Subordinate Debt. Reference is hereby made to the Indenture for a description of the provisions, among others, with respect to the nature and extent of the security, the rights, duties and obligations of the Authority and the Trustee, the rights of the holders of the Series 2022E Subordinate Bonds and the terms upon which the Series 2022E Subordinate Bonds are issued and secured. Any capitalized term used, but not otherwise defined, herein shall have the meaning provided in the Indenture.

The Series 2022E Subordinate Bonds and the premium, if any, and the interest thereon are limited obligations of the Authority payable from Net Revenues of the System, subject to the prior payment therefrom of the principal of and interest due and payable on all Senior Debt heretofore and hereafter issued or incurred by the Authority, and from certain other funds and accounts pledged thereto by, and on the terms set forth in, the Indenture. The Series 2022E Subordinate Bonds shall be without recourse to the District of Columbia (the “District”). The Series 2022E Subordinate Bonds shall not be general obligations of the District, 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, and shall not constitute lending of the public credit for private undertakings.

The Series 2022E Subordinate Bonds may bear interest at a Daily Rate, Weekly Rate, Short-Term Rate, Long-Term Rate, SIFMA Index Rate, a LIBOR Index Rate, or a Fixed Interest Rate, each determined as provided in the Indenture, provided that in no event will the interest rate on any Series 2022E Subordinate Bonds exceed the Maximum Rate. The Series 2022E Subordinate Bonds shall bear interest from and including their date or from and including the most recent Interest Payment Date to which interest has been paid or duly provided for. All Series 2022E Subordinate Bonds shall bear interest initially at the Soft Tender Long-Term Rate as determined in accordance with the Indenture unless and until the Initial Period for the Series 2022E Subordinate Bonds is converted from the Soft Tender Long-Term Rate to a different Interest Period pursuant to the Indenture. Interest on the Series 2022E Subordinate Bonds shall be payable in arrears on each Interest Payment Date. The amount of interest payable with respect to any Series 2022E Subordinate Bond on any Interest Payment Date shall be computed (1) during a Daily Interest Period, a Weekly Interest Period, a Short-Term Interest Period, or an Index Rate Period, on the basis of a 365- or 366-day year for the number of days actually elapsed, and (2) during a Fixed Rate Period and a Long-Term Rate Period, on the basis of a 360-day year of twelve 30-day months.

The Series 2022E Subordinate Bonds are subject to redemption and payment prior to maturity, in whole or in part, at the option of the Authority, upon written direction from the Authorized Official to the Trustee, as follows:

(i) Daily Rate Bonds and Weekly Rate Bonds are subject to optional redemption on any date at the redemption price of 100% of the principal amount thereof, plus accrued interest to the redemption date.

(ii) Short-Term Rate Bonds are subject to optional redemption on any Interest Payment Date at the redemption price of 100% of the principal amount thereof, plus accrued interest to the redemption date.

(iii) Long-Term Rate Bonds are subject to optional redemption on any date or dates specified in the applicable Notice of Conversion (or for the Initial Period, in the Certificate of Award), as an optional redemption date, at a redemption price equal to 100% of the principal amount redeemed, plus interest accrued to the redemption date.

(iv) Index Rate Bonds are subject to optional redemption, in whole or in part, at a redemption price equal to the principal amount of the Index Rate Bonds to be redeemed plus interest accrued to, but not including, the redemption date on any date or dates specified in the applicable Notice of Conversion as an optional redemption date.

(v) Fixed Rate Bonds are subject to optional redemption at any time on and after the no-call period shown below, at the respective redemption prices set out below, plus accrued interest thereon to the redemption date (unless an alternate optional redemption schedule is determined pursuant to this subparagraph (v)):

Period to Final Maturity	No Call Period	Redemption Price
Greater than or equal to 11 Years	8 years	100%
Greater than or equal to 8 years and less than 11 years	6 years	100%
Greater than or equal to 4 years and less than 8 years	3 years	100%
Less than 4 years	No optional redemption	N/A

Notwithstanding the foregoing, if before the first day of a Fixed Rate Period an alternate optional redemption schedule is delivered by the Authority to the Trustee setting forth redemption dates and redemption prices during that Fixed Rate Period together with a certificate of the Remarketing Agent certifying that the redemption terms set forth therein are advantageous for the Remarketing Agent to remarket those Bonds for that period and a Favorable Opinion of Bond Counsel, then the Series 2022E Subordinate Bonds shall be subject to redemption during that period in accordance with that optional redemption schedule rather than the schedule set forth above, provided that ten (10) years shall be the longest period that any Series 2022E Subordinate Bonds shall not be subject to optional redemption.

If a Credit Facility in the form of a direct pay bank letter of credit is in effect for the Series 2022E Subordinate Bonds, the Trustee shall call the Series 2022E Subordinate Bonds for optional redemption only if the Trustee, prior to the mailing of the notice of redemption as provided in Section 502 of the Thirty-Second Supplemental Indenture, is entitled to draw on that Credit Facility in an aggregate amount sufficient to pay the redemption price of the Series 2022E Subordinate Bonds called for redemption, plus accrued and unpaid interest.

The Series 2022E Subordinate Bonds shall be subject to mandatory tender for purchase by the Tender Agent at the Purchase Price, as follows:

(i) Short-Term and Long-Term Rate Bonds. Each Short-Term Rate Bond shall be subject to mandatory tender for purchase by the Tender Agent on the first day following the last day of each Short-Term Interest Period applicable to such Short-Term Rate Bond, and each Long-Term Rate Bond shall be subject to mandatory tender for purchase on the first day following the last day of each Long-Term Interest Period; provided that either in the Certificate of Award or in any applicable Notice of Conversion, Long-Term Rate Bonds shall be designated as either Hard Tender Long-Term Rate Bonds or Soft Tender Long-Term Rate Bonds.

(ii) Conversion of Modes. The Series 2022E Subordinate Bonds shall be subject to mandatory tender for purchase by the Tender Agent on each Conversion Date for such subseries.

(iii) Expiration of a Credit Facility, Voluntary Termination of a Credit Facility or Replacement of a Credit Facility With a Substitute Credit Facility. Series 2022E Subordinate Bonds requiring the maintenance of a Credit Facility are subject to

mandatory tender for purchase by the Tender Agent (1) on a Business Day selected by the Trustee which shall be at least five days prior to the Expiration Date of the Credit Facility; (2) on a Business Day selected by the Trustee which shall be at least five days prior to the Voluntary Termination Date of the Credit Facility; and (3) on each Substitution Date, which shall be at least five days prior to the Expiration Date of the Credit Facility being replaced. Payment of the Purchase Price shall be made from proceeds of remarketing or a draw of moneys upon the Credit Facility that is expiring or being replaced.

(iv) Notice by the Credit Facility Provider. While a Credit Facility is in effect, the Series 2022E Subordinate Bonds are subject to mandatory tender for purchase by the Tender Agent (a) on a Business Day selected by the Trustee that is not more than one Business Day after the Trustee’s receipt of notification from that Credit Facility Provider of that Credit Facility Provider’s decision to exercise its right of mandatory tender as a result of the occurrence of certain events of default or termination under the Reimbursement Agreement, and (b) on the date designated by the Trustee following receipt by the Trustee of notice from the Credit Facility Provider that the Credit Facility Provider is not reinstating the Credit Facility following a draw, which date shall be a Business Day and shall be not more than one Business Day after the Trustee receives notice of non-reinstatement from the Credit Facility Provider.

(v) Index Rate Bonds Purchase Dates. Series 2022E Subordinate Bonds that are converted to Index Rate Bonds (regardless of whether they are then currently Index Rate Bonds) for any Index Rate Period shall be subject to mandatory tender (A) on the Index Rate Bonds Purchase Date specified in the applicable Notice of Conversion, which shall also specify if such Series 2022E Subordinate Bonds shall be Hard Tender Index Rate Bonds or Soft Tender Index Rate Bonds, and (B) at the option of the Authority on any Business Day on or after a date specified in the applicable Notice of Conversion.

The Term Series 2022E Subordinate Bonds are required to be redeemed prior to maturity on October 1 in years and amounts upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date, as follows:

Year	Amount
------	--------

¹ Final Maturity.

If fewer than all of the Series 2022E Subordinate Bonds are called for redemption, the Series 2022E Subordinate Bonds to be redeemed shall be selected by DTC or any successor securities depository pursuant to its rules and procedures or, if the book-entry system is discontinued, shall be selected by the Trustee in its discretion. In either case, (i) the portion of any of the Series 2022E Subordinate Bonds to be redeemed shall be in the principal amount of \$5,000 or some multiple thereof and (ii) in selecting Series 2022E Subordinate Bonds for

redemption each Series 2022E Subordinate Bond shall be considered as representing that number of Series 2022E Subordinate Bonds which is obtained by dividing the principal amount of such Series 2022E Subordinate Bond by \$5,000. If the Series 2022E Subordinate Bonds convert to a different Interest Period, the principal amounts stated in (i) and (ii) above may change pursuant to the Indenture.

If any of the Series 2022E Subordinate Bonds or portions thereof are called for redemption, the Trustee shall send notice of the call for redemption, identifying the Series 2022E Subordinate Bonds or portions thereof to be redeemed, not fewer than 30 nor more than 60 days prior to the redemption date, by facsimile, registered or certified mail or overnight express delivery, to the registered owner of each the Series 2022E Subordinate Bond. Provided funds for their redemption are on deposit at the place of payment on the redemption date, all Series 2022E Subordinate Bonds or portions thereof so called for redemption shall cease to bear interest on such date, shall no longer be secured by the Indenture and shall not be deemed to be Outstanding under the provisions of the Indenture. If a portion of the Series 2022E Subordinate Bonds shall be called for redemption, a new Series 2022E Subordinate Bond in principal amount equal to the unredeemed portion hereof will be issued to DTC or its nominee upon the surrender hereof, or if the book-entry system is discontinued, to the registered owners of the Series 2022E Subordinate Bonds.

The registered owner of this Series 2022E Subordinate Bond shall have no right to enforce the provisions of the Indenture or to institute action to enforce the covenants therein or to take any action with respect to any Event of Default or Series 2022E Subordinate Bond Event of Default under the Indenture or to institute, appear in or defend any suit or other proceedings with respect thereto, except as provided in the Indenture. Specifically, and without limiting the generality of the foregoing, the Series 2022E Subordinate Bonds, as Subordinate Debt, may not be accelerated if any Senior Debt is outstanding. Modifications or alterations of the Indenture, or of any supplement thereto, may be made only to the extent and in the circumstances permitted by the Indenture.

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 of Directors of the Authority or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board of Directors of the Authority nor any officer of the Authority executing the Series 2022E Subordinate Bonds shall be liable personally on the Series 2022E Subordinate Bonds or be subject to any personal liability or accountability by reason of the issuance thereof. No member of the Board of Directors of the Authority 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 Series 2022E Subordinate Bond, the Thirty-Second Supplemental Indenture or the Indenture or any other document authorized by the Indenture, provided such member, officer, employee, agent or advisor acts in good faith.

The Series 2022E Subordinate Bonds are issuable as registered bonds in the denomination of \$5,000 and integral multiples thereof. If the Series 2022E Subordinate Bonds convert to a different Interest Period, the minimum denomination requirements may change pursuant to the Indenture. Upon surrender for transfer or exchange of this Series 2022E Subordinate Bond at the principal corporate trust office of the Trustee, together with an assignment duly executed by the registered owner or its duly authorized attorney or legal representative in such form as shall be satisfactory to the Trustee, the Authority shall execute,

and the Trustee shall authenticate and deliver in exchange, a new Series 2022E Subordinate Bond or Series 2022E Subordinate Bonds in the manner and subject to the limitations and conditions provided in the Indenture, having an equal aggregate principal amount, in authorized denominations, of the same series, form and maturity, bearing interest at the same rate and registered in the name or names as requested by the then registered owner hereof or its duly authorized attorney or legal representative. Any such exchange shall be at the expense of the Authority, except that the Trustee may charge the person requesting such exchange the amount of any tax or other governmental charge required to be paid with respect thereto.

The Trustee shall treat the registered owner as the person exclusively entitled to payment of principal, premium, if any, and interest and the exercise of all other rights and powers of the owner, except that interest payments shall be made to the person shown as owner on the fifteenth day of the month preceding each interest payment date.

All acts, conditions and things required to happen, exist or be performed precedent to and in the issuance of this Series 2022E Subordinate Bond have happened, exist and have been performed.

This Series 2022E Subordinate Bond shall not become obligatory for any purpose or be entitled to any security or benefit under the Indenture or be valid until the Trustee shall have executed the Certificate of Authentication appearing hereon and inserted the date of authentication hereon.

IN WITNESS WHEREOF, the DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY has caused this Series 2022E Subordinate Bond to be executed by the manual or facsimile signature of the Chairman of the Board of Directors of the Authority, its seal to be affixed hereto or a facsimile to be printed hereon and attested by the manual or facsimile signature of the Secretary to the Authority's Board of Directors, and this Series 2022E Subordinate Bond to be dated _____, 2022.

ATTEST:

Secretary to the Authority

Chairman of the Board of Directors

CERTIFICATE OF AUTHENTICATION

Date Authenticated: _____

This Series 2022E Subordinate Bond is one of the Series 2022E Subordinate Bonds described in the within mentioned Indenture.

Computershare Trust Company, N.A.,
Trustee

By _____
Authorized Officer or Employee

ASSIGNMENT

FOR VALUE RECEIVED the undersigned hereby sell(s), assign(s) and transfer(s) unto

(please print or typewrite name and address, including zip code, of Transferee)

PLEASE INSERT SOCIAL SECURITY OR OTHER
IDENTIFYING NUMBER OF TRANSFEREE

: :
: :
: :

the within Series 2022E Subordinate Bond and all rights thereunder, hereby irrevocably
constituting _____ and _____ appointing

_____, Attorney, to transfer said Series
2022E Subordinate Bond on the books kept for the registration thereof, with full power of
substitution in the premises.

Dated: _____

Signature Guaranteed

NOTICE: Signature(s) must be guaranteed
by an Eligible Guarantor Institution such
as a Commercial Institution such as a
Commercial Bank, Trust Company,
Securities Broker/Dealer, Credit Union, or
Savings Association who is a member of a
medallion program approved by The
Securities Transfer Association, Inc.

NOTICE: The signature above must
correspond with the name of the registered
owner as it appears on the front of this Series
2022E Subordinate Bond in every particular,
without alteration or enlargement or any
change whatsoever.

Draft of 12/30/2021 FOR BOARD PACKET

PRELIMINARY OFFICIAL STATEMENT DATED FEBRUARY __, 2022

NEW ISSUE – BOOK-ENTRY ONLY

RATINGS: Standard & Poor's: __
 Moody's: __
 Fitch: __
 See "RATINGS" herein

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 2022E 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, and (ii) the Series 2022E Bonds and the interest thereon are exempt from District taxation, except estate, inheritance and gift taxes. Interest on the Series 2022E 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]*

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Multimodal Revenue Bonds,
Series 2022E

Dated: Date of Delivery

Due: As shown on inside cover

Authority for Issuance. The Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E (the "Series 2022E 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 Computer Share Trust Company, N.A., as trustee (the "Trustee"), as amended and supplemented from time to time, including as amended and supplemented by the Thirty-Second Supplemental Indenture of Trust, by and between the Authority and the Trustee, dated the date of issuance and delivery of the Series 2022E Bonds (the "Thirty-Second Supplemental Indenture" and, together with the Master Indenture, as previously amended and supplemented, the "Indenture").

Use of Proceeds. The proceeds of the Series 2022E Bonds will be used to (i) pay a portion of the costs of certain capital improvements to the System (the "Series 2022E Project"), and (ii) pay the costs of issuing the Series 2022E Bonds.

Denominations and Interest. The Series 2022E Bonds will be issued initially in denominations of \$100,000 and integral multiples of \$5,000 in excess 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 2022E Bonds will initially bear interest at a Soft Tender Long-Term Rate during the Initial Period. Interest on the Series 2022E Bonds will be calculated on the basis of a 360-day year of twelve 30-day months, during the Initial Period, payable semi-annually on each April 1 and October 1, commencing October 1, 2022. After the Initial Period, the Series 2022E Bonds will continue to bear interest in the specified Interest Period unless and until all of the Series 2022E Bonds are converted to a different Interest Period. The applicable interest rate for the Initial Period shall be determined by RBC Capital Markets, LLC for the Series 2022E Bonds, all in the manner described in this Official Statement.

Book-Entry Only. The Series 2022E 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 2022E Bonds, the principal of and premium, if any, and interest on the Series 2022E 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 2022E Bonds, as more fully described herein. See APPENDIX E – "DTC Book-Entry Only System."

Redemption. The Series 2022E Bonds are subject to redemption prior to maturity, as more fully described herein. See "THE SERIES 2022E BONDS – Redemption Provisions."

No Initial Liquidity Support. During the Initial Period, the Series 2022E Bonds are not subject to the benefit of a Credit Facility provided by a third party. Accordingly, a failure by the Remarketing Agent (defined herein) to remarket the Series 2022E Bonds subject to mandatory tender on the Rate Adjustment Date (defined herein) will result in the rescission of the notice of mandatory tender with respect thereto and the Authority not having any obligation to purchase such Series 2022E Bonds at that time. The occurrence of the foregoing will not result in an event of default under the Indenture or the Series 2022E Bonds. Until such time as the Authority redeems or remarkets such Series 2022E Bonds that have not been successfully remarketed as described above, those Series 2022E Bonds shall be converted to a Weekly Rate Period and bear interest at the Penalty Rate (defined herein), calculated on the basis of a 365- or 366-day year for the actual number of days elapsed. See "THE SERIES 2022E BONDS – Conversion of Interest Modes; Mandatory Tender; Purchase of Tendered Bonds" herein.

Remarketing and Tender Agents. The Authority has selected RBC Capital Markets, LLC as a Remarketing Agent (the "Remarketing Agent") to remarket the Series 2022E Bonds. The Trustee will initially be the Tender Agent (the "Tender Agent").

Security. The Series 2022E Bonds will be secured by a pledge of Net Revenues that will be subordinate to the pledge of Net Revenues that secures the Outstanding Senior Debt and any other Senior Debt the Authority may issue from time to time in the future, and on a parity with the pledge of Net Revenues that secures the Outstanding Subordinate Debt and any other Subordinate Debt the Authority may issue from time to time in the future, without preference, priority or distinction of any Subordinate Debt over any other Subordinate Debt, all as further described and defined herein. The Series 2022E Bonds will not be secured by a Debt Service Reserve Fund. See "SECURITY FOR THE SERIES 2022E BONDS."

Limited Obligation. The Series 2022E Bonds shall be special, limited obligations of the Authority payable solely from the Net Revenues of the Authority. The Series 2022E Bonds shall be without recourse to the District of Columbia (the "District"). The Series 2022E Bonds shall not be general obligations of the District or of the Authority. The Series 2022E 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 2022E 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.

The Series 2022E 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 2022E Bonds are subject to the approval of Squire Patton Boggs (US) LLP and Bellamy Penn LLC, Co-Bond Counsel to the Authority. Squire Patton Boggs (US) LLP and Bellamy Penn 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 Underwriter by Orrick, Herrington & Sutcliffe LLP and McKenzie & Associates PC, Co-Underwriters' Counsel. It is expected that the Series 2022E Bonds will be available for delivery through the facilities of DTC in New York, New York on or about February __, 2022.

RBC CAPITAL MARKETS

CITIGROUP GLOBAL MARKETS

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: February __, 2022

* Preliminary; subject to change.

INITIAL INTEREST PERIOD INFORMATION

[\$100,000,000]*

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Multimodal Revenue Bonds,
Series 2022E**

Initial Interest Period Commencement	Initial Interest Period Expiration	Mandatory Tender Date ¹	Initial Interest Rate (%)	Initial Yield (%) ²	Penalty Rate (%)	CUSIP No. ³
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* Preliminary, subject to change

¹ The Series 2022E Bonds have a stated maturity date of October 1, 20__.

² Calculated to _____.

³ CUSIP® is a registered trademark of the American Bankers Association. CUSIP Global Services (CGS) is managed on behalf of the American Bankers Association by S&P Global Market Intelligence. Copyright(c) 2022 CUSIP Global Services. All rights reserved. CUSIP® data herein is provided by CUSIP Global Services. This data is not intended to create a database and does not serve in any way as a substitute for the CGS database. CUSIP® numbers are provided for convenience of reference only. Neither the Authority nor the Underwriter or their agents or counsel are responsible for the accuracy of such numbers. No representation is made as to their correctness on the Series 2022E Bonds or as included herein. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Series 2022E Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of certain maturities of the Series 2022E Bonds.

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District of Columbia Water and Sewer Authority
1385 Canal Street, S.E.
Washington, D.C. 20003
(202) 787-2714
www.dcwater.com

Principal Board Members Jurisdiction

Tommy Wells, Chair	<i>District of Columbia</i>
Rachna Butani Bhatt	<i>District of Columbia</i>
David Franco	<i>District of Columbia</i>
Anthony Giancola	<i>District of Columbia</i>
Christopher Herrington	<i>Fairfax County</i>
Floyd Holt	<i>Prince George's County</i>
Tara Jackson	<i>Prince George's County</i>
Fariba Kassiri	<i>Montgomery County</i>
Adam Ortiz	<i>Montgomery County</i>

Alternate Board Members Jurisdiction

Andrea Crooms	<i>Prince George's County</i>
Kendrick Curry	<i>District of Columbia</i>
Ivan Frishberg	<i>District of Columbia</i>
Howard Gibbs	<i>District of Columbia</i>
Adriana Hochberg	<i>Montgomery County</i>
Joe Leonard, Jr.	<i>District of Columbia</i>
Jared McCarthy	<i>Prince George's County</i>
Sarah Motsch	<i>Fairfax County</i>
Jed Ross	<i>District of Columbia</i>
Steven Shofar	<i>Montgomery County</i>

Authority Management

David Gadis	<i>Chief Executive Officer and General Manager</i>
Matthew T. Brown	<i>Chief Financial Officer and Executive Vice President, Finance and Procurement</i>
Kishia Powell	<i>Chief Operating Officer and Executive Vice President</i>
Keith J. Lindsey	<i>Chief of Staff</i>
Marc Battle, Esq.	<i>Chief Legal Officer and Executive Vice President, Legal Affairs</i>
Wayne Griffith	<i>Chief Strategy and Performance Officer and Executive Vice President</i>
Kristen Williams	<i>Chief Communications and Stakeholders Engagement Officer and Executive Vice President</i>
Lisa Stone	<i>Chief People and Inclusion Officer and Executive Vice President, People and Talent</i>

Authority Consultants and Counsel

<i>Co-Bond Counsel</i>	Squire Patton Boggs (US) LLP and Bellamy Penn LLC
<i>Co-Disclosure Counsel</i>	Squire Patton Boggs (US) LLP and Bellamy Penn LLC
<i>Financial Feasibility Consultant</i>	Amawalk Consulting Group LLC
<i>Engineering Feasibility Consultant</i>	[Johnson, Mirmiran, & Thompson, Inc.]
<i>Co-Financial Advisors</i>	PFM Financial Advisors LLC and Sustainable Capital 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 Underwriter 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 Underwriter.

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 2022E 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 2022E 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 Underwriter and the purchasers or owners of any offered Series 2022E 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 Underwriter 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 Underwriter do not guarantee the accuracy or completeness of such information.

No Registration or Approval. The Series 2022E 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 2022E 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 Underwriter may over allot or effect transactions which stabilize or maintain the market price of the Series 2022E 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 2022E 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 Subordinate Lien Multimodal Revenue Bonds,
Series 2022E

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 Subordinate Lien Multimodal Revenue Bonds, Series 2022E in the original principal amount of \$[100,000,000]* (the “Series 2022E 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 2022E 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 2022E Bonds (the “Indenture”), including by the Thirty-Second Supplemental Indenture of Trust, to be dated the date of issuance and delivery of the Series 2022E Bonds (the “Thirty-Second Supplemental Indenture”), each by and between the Authority and Computer Share Trust Company, N.A., as trustee (the “Trustee”), and a resolution of the Authority’s Board of Directors passed at its January 6, 2022 meeting authorizing the issuance of the Series 2022E Bonds.

The Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022B (Green Bonds) (the “Series 2022B Subordinate Bonds”), the Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds, Series 2022C-1 Bonds (the “Series 2022C-1 Bonds”), the Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022C-2 Bonds (the “Series 2022C-2 Bonds” and together with the Series 2022C-1 Bonds, the “Series 2022C Bonds”) and the Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2022D (Federally Taxable) (the “Series 2022D Subordinate Bonds,” and, together with the Series 2022B Subordinate Bonds and the Series 2022C Subordinate Bonds, the “Series 2022B/C/D Subordinate Bonds”) are being issued at the same time as the Series 2022E Bonds pursuant to the Indenture as supplemented by the Thirtieth Supplemental Indenture of Trust, to be dated the date of issuance and delivery of the Series 2022B Subordinate Bonds and the Series 2022C Subordinate Bonds (the “Thirtieth Supplemental Indenture”) and as supplemented by the Thirty-First Supplemental Indenture of Trust to be dated the date of issuance and delivery of the Series 2022D Bonds (the “Thirty-First Supplemental Indenture”), in an amount of \$[_____]*.

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 774; 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 2022E Bonds, remain

* Preliminary; subject to change.

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 2022E Bonds. The Authority makes no representation as to the accuracy or completeness of information derived from other sources.

Recent Developments

Blueprint 2.0 (Strategic Plan)

The Authority has released Blueprint 2.0, a new enterprise-wide strategic plan designed to guide the Authority over the next five years and beyond. Blueprint 2.0 sets out five Organizational Imperatives, which are defined outcomes essential to achieving strategic goals over the next five years and beyond. The Imperatives have been developed through engagement with a cross section of key stakeholders and are used to frame strategy and address upcoming challenges. The Blueprint 2.0 imperatives are (1) consumer health, safety and wellness, (2) service reliability, (3) system resiliency, (4) environmental sustainability and (5) equity.

New Financial Policies

The Board of Directors approved a new “Statement of Financial Policies” on October 7, 2021 that strengthen debt service coverage and liquidity requirements. The new policies established a combined coverage requirement of 1.6x. This exceeds the Trust Indenture requirements of 1.2x for senior coverage and 1.0x for subordinate coverage and the previous policy that required 1.4x coverage for senior debt. The policies also increase liquidity requirements by increasing the days of cash on hand from \$125.5 million, or 120 days, to 250 days. This requirement must be met with the Renewal and Replacement Fund, the Operating Reserve Fund, and additional cash. Funds in the Rate Stabilization Fund cannot be used to meet this requirement. Per the new policy, these requirements must be met in the in the budget and in all ten years of the financial plan. To meet the new days of cash requirement, on November 4, 2021 the Board of Directors authorized the transfer of \$41.6 million from the Rate Stabilization Fund to the operating cash reserves to meet the 250 days of cash requirement. The December 31, 2021 balance of the Rate Stabilization Fund is \$46.4 million. Those funds may be applied by the Board of Directors in accordance with the Rate Stabilization Fund policy. For more information see “FINANCIAL OPERATIONS – Financial Policies.”

Environmental, Social, and Governance (ESG) Report

The Authority has released its first Environmental, Social, and Governance (ESG) Report that builds on the Authority’s previous work in consideration of factors in the natural world and activities that impact stakeholders, to the Authority’s commitment in operating under a resilient and fair governance framework. Operating one of the country’s largest water and wastewater utilities responsibly and efficiently relies on the awareness and prioritization of ESG matters. The Authority’s ESG ambitions are aligned with the imperatives developed under Blueprint 2.0.

The Authority is believed to be the first municipal water utility in the United States to issue an ESG Report of this kind, and the complete document can be found at <https://www.dcwater.com/esg-reporting>. This reference to the Authority’s website is for information purposes only, neither the website nor the information contained on the website shall be deemed incorporated herein by reference. The Authority is not obligated to continue to provide information found on its website.

Green Bond Framework

On October 7, 2021 the Board issued a Green Bond Framework to formalize the process and commitments that govern the Authority’s issuance of Green Bonds. The Green Bond Framework governs the use of Green Bond proceeds, project selection and evaluation processes, management of Green Bond proceeds and disclosure. At the time of issuance of a Green Bond, the Authority’s policy is to seek an independent Second Party Opinion on the sustainability of the Green Bond to be issued.

Lead Removal Initiative

The Lead Free DC Initiative aims to replace more than 28,000 service lines with lead or galvanized-iron pipe by 2030. The Authority developed a model to use water quality and health equity data to prioritize lead service line replacement projects. This approach prioritizes lead replacement for: (1) vulnerable populations most impacted by lead exposure (children and seniors) and (2) communities that are historically underserved, and experience disproportionately poorer health outcomes compared with other parts of the District. The model scores and ranks blocks according to the health benefit and social impact of lead service line replacement so that projects can be funded and executed equitably.

Use of the Series 2022E Bond Proceeds

The proceeds of the Series 2022E Bonds will be used to (i) pay the costs of certain capital improvements to the System (the “Series 2022E Project”) and (ii) pay the costs of issuing the Series 2022E Bonds.

The proceeds of the Series 2022E Bonds to be used to pay the costs of the Series 2022E Project will be deposited in a segregated account of the Construction Fund established and maintained under the Indenture (the “2022E 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 2022E Bonds will constitute Subordinate Debt under the Indenture. The Series 2022E Bonds will be secured by a lien on and a pledge of Net Revenues that is subordinate to the pledge of Net Revenues that secures the Outstanding Senior Debt and any other Senior Debt the Authority may issue from time to time in the future, and on a parity with the pledge of Net Revenues that secures the Outstanding Subordinate Debt and any other Subordinate Debt the Authority may issue from time to time in the future, without preference, priority or distinction of any Subordinate Debt over any other Subordinate Debt.

Prior to the issuance of the Series 2022E Bonds and the Series 2022B/C/D Subordinate Bonds expected to be issued on February __, 2022, \$[_____] aggregate principal amount of Senior Debt and \$[_____] aggregate principal amount of Subordinate Debt will be outstanding. See “OUTSTANDING INDEBTEDNESS.”

The Series 2022E 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 “SECURITY FOR THE SERIES 2022E BONDS – Lien and Pledge of the Master Indenture” and “RATES AND CHARGES.” The Series 2022E Bonds will not be secured by a Debt Service Reserve Fund.

The Series 2022E Bonds shall be special and limited obligations of the Authority. The Series 2022E Bonds shall be without recourse to the District. The Series 2022E Bonds shall not be general obligations of the District or of the Authority. The Series 2022E 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 2022E 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.

Concurrent Issuance of Bonds by the Authority

Concurrently with the issuance of the Series 2022E Bonds, the Authority expects to issue the Series 2022B/C/D Subordinate Bonds, in an amount of \$[_____] pursuant to the Indenture, as supplemented by the Thirtieth Supplemental Indenture and the Thirty-First Supplemental Indenture. The Series 2022B/C/D Subordinate Bonds are expected to (i) finance certain costs of the Authority’s DC Clean Rivers Project (for a description of the DC Clean Rivers Project, see “CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Combined Sewer Overflow Projects”); (ii) finance certain costs of the System; (iii) refund a portion of the Authority’s currently outstanding Commercial Paper Notes; (iv) finance the purchase or provide for the exchange pursuant to an offer to exchange or tender for purchase (“Exchange/Tender Offer”) of all or a portion of the Authority’s outstanding Public Utility Subordinate Lien Revenue Refunding Bonds, Series 2014C (the “Series 2014C Bonds”), Public Utility Subordinate Lien Revenue Bonds, Series 2015A (Green Bonds) (the “Series 2015A Bonds”) and Public Utility Subordinate Lien Revenue Bonds, Series 2015B (the “Series 2015B Bonds” and, collectively with the Series 2014C Bonds and the Series 2015A Bonds, the “Target Bonds”) that are tendered for purchase (the “Tendered Bonds”) or exchanged (the “Exchanged Bonds”) by the holders thereof in response to the Authority’s Exchange/Tender Offer, (v) pay a portion of the Authority’s share of the Washington Aqueduct’s capital improvements and a portion of the costs of certain capital improvements to the System, (vi) advance refund all or a portion of the Authority’s outstanding Target Bonds and (vii) pay certain costs of issuance. The Authority expects that the Series 2022B/C/D Subordinate Bonds will bear interest at a fixed rate as identified in the Thirtieth Supplemental Indenture and the Thirty-First Supplemental Indenture. The Series 2022B/C/D Subordinate Bonds will be secured by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future. The issuance of the Series 2022B/C/D Subordinate Bonds is not dependent upon the Authority’s issuance of the Series 2022E Bonds, and such Series 2022E Bonds will be sold separately and independently from the Series 2022B/C/D Subordinate Bonds.

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 2022E 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 2022B/C/D 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 \$6.41 billion on a cash disbursement basis. The Board approved the CIP on April 1, 2021. See “CAPITAL IMPROVEMENT PROGRAM.”

Miscellaneous

This Official Statement contains brief descriptions of the Series 2022E 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 2022E 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 Underwriter and the purchasers or owners of any of the Series 2022E Bonds.

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

COVID-19 IMPACT, RESPONSE AND RISK FACTORS

The District has been severely affected by the outbreak of a novel strain of coronavirus that can result in a severe respiratory disease, referred to as COVID-19. The outbreak of COVID-19 has altered the behavior of businesses and people in a manner that has had negative effects on the District and its economy. The extent to which those effects will continue cannot be predicted at this time. The Authority’s provision of retail water and wastewater services and wholesale wastewater conveyance have not been affected by the outbreak of the COVID-19 pandemic. However, the outbreak has negatively affected, and is projected to continue to negatively affect, retail water and wastewater revenues. For additional information on projected revenues, see “FINANCIAL OPERATIONS – System Revenues.”

The Authority's Response

In response to the COVID-19 pandemic, the Authority implemented policies, such as suspending disconnections for non-payment, reconnecting disconnected customers, providing payment plans and working with the District government to expand financial assistance for customers. The Authority took proactive steps to curtail spending, prioritize critical and COVID-related expenditures and achieve budget savings. The Authority reduced reliance on consultants, prioritized critical repair and maintenance work for sewer and water infrastructure and Authority-wide travel and training. The Authority is only hiring for positions deemed critical for the duration of the pandemic. Certain personnel contracts were also terminated or not extended to ensure available funding for the most important operational functions of the Authority.

Customer Assistance Programs

The Authority joined the District government in assisting customers who were impacted by the COVID-19 pandemic. The Public Emergency Extension and Eviction and Utility Moratorium Phasing Temporary Amendment Act of 2021 ("Temporary Moratorium") effective, October 27, 2021, will remain effective until it expires June 22, 2022. Under the Temporary Moratorium, qualified customers may avoid service disconnections and establish payment plans and terms for restoration. The Authority also suspended the recordation of liens in 2021.

Also in early 2021, the Board approved the Emergency Residential Relief Program and the Multi-Family Assistance Program, which supplement assistance for eligible households in single family homes and multi-family buildings respectively who have delinquent bills during the pandemic. The programs provide up to \$2,000 to help a customer eliminate their past due balance, provided they are income eligible. The District government funds an additional emergency assistance program whereby income eligible households are eligible for an additional \$2,000 in assistance.

Maintaining Continuity of Operations

The Authority provides employees flexibility to work remotely while maintaining the integrity and productivity of the Authority's operations. Critical operations staff work as separated teams to ensure the continuity of operations. The Authority uses staggered shifts and additional muster stations for staff responsible for system upgrades and maintenance. Employees in the office or in the field are provided with personal protective equipment. Face coverings are required inside all Authority facilities, outside at all Authority worksites and while traveling in Authority vehicles. Inside residential work is restricted to emergencies with employees utilizing full personal protective equipment.

Financial Impact

Budget. The Authority took several actions through the first two years of the COVID-19 pandemic to align expenditures with anticipated revenues to include hiring critical positions, instituting spending restrictions and reducing contract costs to only necessary work, purchasing all necessary PPE equipment (i.e. protective masks, hand sanitizer, plastic gloves, etc.) to protect employees in the field and in the offices, and performing preventive maintenance on all equipment and assets in compliance with all regulatory and permit requirements. At the end of fiscal year 2021, total operating expenditures were \$51.1 million below budget. The Authority reported that fiscal year 2021 revenues (through September 30, 2021), on a cash basis, were \$710.0 million, \$24.2 million below the budget of \$733.7 million as a result of a decline in consumption and a growth in delinquencies. The Authority had previously estimated that the shortfall could be as high as \$45.1 million below budget [but ended with a surplus of approximately \$27 million compared to budget]. Revenues are improving in fiscal year 2022, which began on October 1, 2021. [In the first quarter, revenues were ____ as compared to the budget of \$_____ million.]

Collections. The Authority measures "90-Day delinquencies", as amounts not paid 90 days after the billing date. As a result of the pandemic, new delinquencies of 90 days or longer increased from \$12.0 million in February 2020 to \$27.2 million as of November 30, 2021. At the end of September 30, 2021 the Authority reported an allowance for doubtful accounts of \$29.0 million, an increase over the \$24.4 million at the end of September 20, 2020. The allowance is calculated by applying historical collection rates against balances. For residential, non-residential

(commercial) and multi-family accounts it is estimated that 0% will be collected that is 731 days and older than the bill date, 31% of balances between 365 and 730 days will be collected, and 93% will be collected that is between 0 and 364 days from the bill date. The Authority assumes that 99% of municipal and housing authority bills will be collected and 100% of federal bills will be collected. As of November 30, 2021, 2,420 customers had active payment plans. There are 2,083 residential, 132 non-residential (commercial) and 205 multi-family customer payment plans. For further information regarding collections, see “CUSTOMER BASE, RATES AND CHARGES – Collections.”

Capital Improvement Program. The Authority temporary delayed approximately \$170 million in capital projects and entered into a purchase agreement to refinance approximately \$300 million in outstanding indebtedness. The Authority received approximately \$30 million from the District for lead removal as a result of federal assistance.

Risk Factors Related to the COVID-19 Pandemic

There can be no assurance concerning the COVID-19 pandemic’s full effect on the finances or operations of the Authority. The Authority cannot predict (i) the duration or extent of the COVID-19 pandemic; (ii) the implementation, duration, or expansion of governmental restrictions; (iii) what effect any pandemic-related restrictions or warnings may have on the economy, the District or the Authority; (iv) whether and to what extent the COVID-19 pandemic may disrupt the local or global economy, manufacturing or supply chain, or whether any such disruption may adversely impact the construction of the CIP or other operations; (v) the extent to which the COVID-19 pandemic or other outbreak or pandemic, may result in changes in demand for water, or may have an impact on water customers or suppliers or the water industry, generally; (vi) whether or to what extent the Authority may provide additional deferrals, forbearances, adjustment or other changes to the arrangements with its customers; (vii) whether actions taken by Federal and state and local governments (including the District) to mitigate the impact of the COVID-19 pandemic will have the intended effects; or (viii) whether any of the foregoing may have a material adverse effect on the finances and operations of the Authority.

There can be no assurances that the COVID-19 pandemic and the implementation of restrictions on a local, state and national level will not materially impact the local, state and national economies or the ability of the Authority’s customers to make timely payments for water supply services and accordingly, materially adversely affect an investment in the Series 2022B/C/D Bonds. The Authority is unable to quantify such risk at this time.

THE SERIES 2022E BONDS

General

The Series 2022E Bonds will be dated their date of delivery and will initially bear interest at a Soft Tender Long-Term Rate as set forth on the inside cover page of this Official Statement. Interest on the Series 2022E Bonds will be calculated on the basis of a 360-day year of twelve 30-day months, and during the Initial Period will bear interest at a Soft Tender Long-Term Rate, payable semi-annually on each April 1 and October 1, commencing [April 1, 2022] (each, an “Interest Payment Date”). The Series 2022E Bonds will mature on October 1, 20__.* The initial Soft Tender Long-Term Rate for the Series 2022E Bonds shall commence on the date of issuance and end on September 30, 20__.* The Series 2022E Bonds will not be secured by a Credit Facility during the Initial Period.

Conversions of Interest Modes; Mandatory Tender; Purchase of Tendered Bonds

Conversions

The Authority, may elect to convert all or a portion of the Series 2022E Bonds from one Rate Period to another Rate Period. Any such conversion shall be subject to the provision of certain notices required by the Thirty-Second Supplemental Indenture and the satisfaction of certain conditions precedent. With respect to the Series 2022E Bonds, while bearing interest in a Long-Term Rate, the following conditions apply:

- i. Any Credit Facility to be held by the Trustee after the Conversion Date that relates to a converted Series 2022E Bond shall be in an amount equal to the aggregate principal amount of all of the Series 2022E Bonds to which it relates, plus an amount for payment of interest equal to at least (a) 34 days’ interest (unless the conversion is to Short-Term Rate Bonds), plus, in the case of a Credit Facility

* Preliminary, subject to change.

that does not automatically reinstate coverage for interest following a draw upon the Credit Facility to pay interest on the related the Series 2022E Bonds, the number of days during which the related the Series 2022E Bonds may continue to bear interest until purchased upon mandatory tender, or (b) in the event that a rating will be maintained on the Series 2022E Bonds, then such other number of days of interest as may be required by any Rating Agency;

- ii. If the conversion is to a Fixed Rate Period, the Authority shall provide written notice of the conversion to the Remarketing Agent, in addition to the Trustee. Such notice shall also be accompanied by a Favorable Opinion of Bond Counsel required by the Thirty-Second Supplemental Indenture and a firm underwriting or purchase contract from a firm, which may be the Remarketing Agent, to underwrite or purchase all of the Series 2022E Bonds to be converted to a Fixed Rate Period at a price of 100% of the principal amount thereof at an agreed upon interest rate which such firm certifies is the lowest rate that will permit such Series 2022E Bonds to be sold at par, or at a discount or premium, on the first day of the Fixed Rate Period, and containing a Mandatory Sinking Fund Requirements schedule, as required by the Thirty-Second Supplemental Indenture. Upon receipt of such notice, the Trustee shall promptly cause the same information to be delivered to the Tender Agent, any affected Credit Facility Provider, and any Rating Agency. A conversion to a Fixed Rate Period shall not occur unless the Authority shall also file with the Trustee a Favorable Opinion of Bond Counsel relating to the conversion;
- iii. The conversion shall not occur unless the Conversion Date is a date on which the Series 2022E Bonds being converted could be redeemed without premium pursuant to the Thirty-Second Supplemental Indenture;
- iv. If the conversion of the Series 2022E Bonds is to a Short-Term Rate Period, (a) the Authority, at its own expense, must engage a commercial paper trustee and paying agent (the "Issuing Agent"), which may or may not be the Trustee and which shall be reasonably acceptable to the Trustee, any Credit Facility Provider and the Tender Agent, having access to the Depository's electronic money market issuing and payment system and otherwise eligible to serve as an issuing and paying agent under the Depository's policies and procedures for the issuance and payment of commercial paper; and (b) the Remarketing Agent must arrange for the execution and delivery to the Depository of its required letter of representation for the eligibility of the Series 2022E Bonds in the Short-Term Rate Period in the Depository's book-entry system and the provision of any needed CUSIP numbers; and (c) the Authority shall take all other action needed to comply with the Depository's requirements applicable to the issuance and payment of the Series 2022E Bonds while in the Short-Term Rate Period; and (d) the Authority shall enter into any amendment of the Thirty-Second Supplemental Indenture permitted under such Indenture that is needed to comply with the Depository's or any Rating Agency's requirements concerning the issuance and payment of the Series 2022E Bonds in the Short-Term Rate Period.

If any condition precedent to a conversion is not fulfilled, (i) the Conversion Date shall not occur; (ii) the mandatory tender for purchase, if otherwise required by the Thirty-Second Supplemental Indenture, shall not occur; and (iii) the Series 2022E Bonds shall continue to bear interest in the then-existing Rate Period with the length and interest rate of such Rate Period being determined pursuant to the Thirty-Second Supplemental Indenture. Notice of withdrawal of a conversion notice shall be given by the Authority to the Trustee, the Remarketing Agent, the Tender Agent, any Credit Facility Provider, and the Holders as provided in the Thirty-Second Supplemental Indenture. No failure or cancellation of conversion for failure to satisfy a condition precedent to such conversion shall constitute an Event of Default.

For a complete discussion of the conditions that must be met to convert the Series 2022E Bonds from one Rate Period to another Rate Period, see APPENDIX C – "Glossary and Summary of the Indenture."

Tender Provisions Generally.

The Series 2022E Bonds are not subject to optional or mandatory tender during the Initial Period. The Series 2022E Bonds are, however, subject to mandatory tender (without right of retention) after the conclusion of the Initial Period (see "Mandatory Tender" below); provided that when there exists no Credit Facility relating to the Series 2022E Bonds, which includes the Series 2022E Bonds in their Initial Period, a failure to remarket such Series 2022E Bonds subject to mandatory tender will not constitute an event of default under either the Indenture or the affected Series 2022E Bonds and, in such instance, the mandatory tender will be deemed to be rescinded until the Remarketing Agent is able to remarket or the Authority redeems the affected Series 2022E Bonds, all in accordance with the Indenture.

As stated above, the Series 2022E Bonds, during the Initial Period, are not secured by a Credit Facility provided by a third party. Accordingly, a failure by the Remarketing Agent to remarket Series 2022E Bonds subject to mandatory tender on the Rate Adjustment Date immediately after conclusion of the Initial Period will result in the

rescission of the notice of mandatory tender with respect thereto and the Authority will not have any obligation to purchase such Series 2022E Bonds at that time. The occurrence of the foregoing will not result in an event of default under the Indenture or the Series 2022E Bonds. Until such time as the Authority redeems or remarkets such Series 2022E Bonds that have not been successfully remarketed as described above, such Series 2022E Bonds will be converted to a Weekly Rate Period and will bear interest at the Penalty Rate, calculated on the basis of a 365- or 366-day year for the actual number of days elapsed.

In the event that less than all of the Series 2022E Bonds are successfully remarketed on the Purchase Date, the Tender Agent (defined herein) will provide notice to DTC of the partial mandatory tender of such Series 2022E Bonds (including the principal amount of such Series 2022E Bonds that have been successfully remarketed), and the Series 2022E Bonds to be remarketed shall be selected in accordance with the arrangements between the Authority and DTC. DTC's current practice is to perform such selection by lot, in the same manner that DTC selects Series 2022E Bonds in connection with a partial redemption. See "THE SERIES 2022E BONDS — Book-Entry Only System." In the event that less than all of the Series 2022E Bonds are to be remarketed as described above and such Series 2022E Bonds are not registered in book-entry form, the Series 2022E Bonds to be remarketed shall be selected by the Tender Agent by lot or other customary random method in such manner as the Tender Agent in its discretion may deem proper. The Tender Agent will provide notice to all registered owners of such Series 2022E Bonds that were not successfully remarketed, including the Penalty Rate (which is the Penalty Rate applicable to the Series 2022E Bonds evidenced herein) that will be applicable to such Series 2022E Bonds as a result of such failed remarketing.

Mandatory Tender.

On the first day after the conclusion of the Initial Period (such date, a "Rate Adjustment Date"), the Series 2022E Bonds are subject to mandatory tender without right of retention (though if such Rate Adjustment Date is not a Business Day, actual tender for purchase will occur on the next Business Day thereafter). Each owner of Series 2022E Bonds will be required to tender, and in any event will be deemed to have tendered, such Series 2022E Bonds (or the applicable portion thereof) to the Tender Agent on the Rate Adjustment Date for purchase at a purchase price equal to at least 100% of the principal amount plus accrued interest, if any (payable from the limited sources of funds described below), through the conclusion of the Initial Period.

The Tender Agent is required to give notice of mandatory tender to each registered owner of the Series 2022E Bonds affected thereby by mail, first class postage prepaid, not more than 60 nor less than 30 days, while the Series 2022E Bonds are in a Long-Term Rate Period (which includes the Series 2022E Bonds in their Initial Period). While the Series 2022E Bonds are registered in the name of Cede & Co., only Cede & Co. will receive such notice from the Tender Agent. See "THE SERIES 2022E BONDS — Book-Entry Only System" herein. However, beneficial owners may register to receive such information directly by contacting the Tender Agent. See "CONTINUING DISCLOSURE" herein.

In the event that the Series 2022E Bonds are not converted and remarketed to new purchasers on the Rate Adjustment Date, the Authority shall have no obligation to purchase such Series 2022E Bonds tendered on such date, the failed conversion and remarketing shall not constitute an event of default under the Indenture or the Series 2022E Bonds, the mandatory tender will be deemed to have been rescinded for that date with respect to the Series 2022E Bonds subject to such failed remarketing only, and the Series 2022E Bonds (i) will continue to be Outstanding, (ii) will be purchased upon the availability of funds to be received from the subsequent remarketing of such Series 2022E Bonds, (iii) will be converted to a Weekly Rate Period, (iv) will be subject to redemption and mandatory tender for purchase on any date during such time that the Series 2022E Bonds bear interest at the Penalty Rate (and which shall occur, at the Authority's discretion and upon delivery of at least one day's notice of such redemption or requirement of mandatory tender to the holders of the Series 2022E Bonds then bearing interest at the Penalty Rate), and (v) will be deemed to continue in the Initial Period for all other purposes of the Indenture, though bearing interest during such time in a Weekly Rate Period at the Penalty Rate until remarketed or redeemed in accordance with the terms of the Indenture. In the event of a failed conversion and remarketing as described above, the Authority has covenanted in the Indenture to cause the Series 2022E Bonds to be converted and remarketed on the earliest reasonably practicable date on which they can be sold at par, or at a discount or premium, in such Rate Period as the Authority directs, at a rate not exceeding the Maximum Rate.

Tender Procedures.

While the Series 2022E Bonds are all registered in the name of Cede & Co., as nominee for DTC, Bondholders shall tender the Series 2022E Bonds for purchase by giving DTC sufficient instructions to transfer beneficial ownership of such Series 2022E Bonds to the account of the Tender Agent against payment. In the event that the Book-Entry Only System herein is discontinued and registered bonds are issued, all notices and the Series 2022E Bonds are required to be delivered to the Tender Agent.

Book-Entry Only System

The Series 2022E 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 2022E Bonds. Individual purchases of interests in

the Series 2022E Bonds will be made in book-entry form only, initially in the principal amount of \$100,000 or any integral multiples of \$5,000 in excess thereof. Individual purchasers will not receive physical delivery of bond certificates. So long as Cede & Co. is the registered owner of the Series 2022E Bonds as nominee of DTC, references herein to the holders or registered owners of the Series 2022E Bonds will mean Cede & Co. and will not mean the beneficial owners (“Beneficial Owners”) of the Series 2022E Bonds. Beneficial interests in the Series 2022E Bonds may be held through DTC directly as a participant or indirectly through organizations that are participants. See APPENDIX E – “DTC Book-Entry Only System.”

As long as the Series 2022E 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 2022E Bonds (the “Bondholders”). If the book-entry only system is discontinued during the Initial Period, interest on the Series 2022E 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 Underwriter 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 2022E Bonds or (iv) any other action taken by DTC or its partnership nominee as owner of the Series 2022E 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 2022E Bonds are subject to optional redemption, at the price of par, plus accrued but unpaid interest, on or after [_____ 1, 20__]. In addition, the Series 2022E Bonds are subject to optional redemption, at the price of par, plus accrued but unpaid interest, on any date on which the Series 2022E Bonds bear interest at the Penalty Rate.

Mandatory Sinking Fund Redemption

The Series 2022E Bonds are subject to mandatory sinking fund redemption by the Authority prior to their scheduled maturity at a redemption price equal to 100% of the principal amount thereof, without premium on October 1 of the years and in the principal amounts indicated below:

Year*	Amount*
-------	---------

¹ Final Maturity.

The principal amount of the Series 2022E Bonds required to be redeemed pursuant to the operation of such mandatory redemption provisions shall be reduced, at the option of the Authority, by the principal amount of any of the Series 2022E Bonds and of such stated maturity which, at least 50 days prior to the mandatory redemption date (1) shall have been defeased or acquired by the Authority and delivered to the Trustee for cancellation, (2) shall have been purchased and canceled by the Trustee at the request of the Authority with money in the Bond Fund, or (3) shall have been redeemed pursuant to the optional redemption provisions set forth herein and not theretofore credited against a mandatory redemption requirement.

Selection of the Series 2022E Bonds to be Redeemed

The particular maturities of the Series 2022E 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 2022E Bond of a maturity is called for prior redemption and if the Series 2022E Bonds are registered in book-entry only form and DTC or a successor securities depository is the sole registered owner

* Preliminary, subject to change.

of such Series 2022E Bonds, the particular Series 2022E 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 2022E Bond to be redeemed shall be in the principal amount of \$5,000 or integral multiples thereof and (ii) in selecting Series 2022E Bonds for redemption, each Series 2022E Bond shall be considered as representing that number of the Series 2022E Bonds that is obtained by dividing the principal amount of such Series 2022E 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 2022E Bonds. If no qualified securities depository is the registered owner of the Series 2022E Bonds, a notice of redemption shall be mailed to the registered owners of the Series 2022E Bonds. See “THE SERIES 2022E BONDS – Book-Entry Only System.”

The Trustee shall send notice of the call for redemption, identifying the Series 2022E 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 2022E 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 2022E 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 2022E 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 2022E 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 2022E Bonds, the notice of redemption of the Series 2022E 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 2022E 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 2022E Bonds. A portion of the net proceeds of the Series 2022E Bonds will be used to pay the costs of the Series 2022E Project. See “CAPITAL IMPROVEMENT PROGRAM.” Such proceeds will be deposited in the 2022E Construction Account. The proceeds therein will be invested in Permitted Investments pursuant to the Indenture. The remainder of the proceeds of the Series 2022E Bonds will be used to pay costs of issuing the Series 2022E Bonds.

SOURCES AND USES OF FUNDS*

The proceeds of the Series 2022E Bonds are expected to be applied as follows:

	<u>Series 2022E Bonds</u>
Sources of Funds	
Par Amount	\$[100,000,000].00
Original Issue Premium	
Total Sources	<hr/>
Uses of Funds	
Deposit to Series 2022E Construction Account	
Underwriter's Discount	
Other Costs of Issuance	
Total Uses	<hr/>

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* Preliminary, subject to change.

SECURITY FOR THE SERIES 2022E BONDS

Lien and Pledge of the Master Indenture

General. The Series 2022E 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 2022E Bonds will constitute Subordinate Debt under the Indenture, payable solely from the Net Revenues of the System. Net Revenues are Revenues less Operating Expenses (as defined in the Indenture). Revenues are defined as all moneys received as income, rates, fees, charges, receipts, profits and other moneys derived by the Authority from its ownership and operation of the System, and for the use of and for the services furnished by the System, including Connection Fees (as defined in the Indenture), transfers from the Rate Stabilization Fund to the Revenue Fund, proceeds of any business interruption insurance, and investment earnings on all of the funds held by the Trustee under the Indenture and the Authority, except any rebate fund that may be created under the Indenture. Revenues do not include refundable customer deposits, the IMA Capital Payments (as defined in the Indenture) or other payments solely in aid of construction, the EPA Grants or similar payments, or the proceeds resulting from the sale of all or a portion of the System.

The Series 2022E Bonds are payable and secured on a subordinate basis to the Outstanding Senior Debt and all other Senior Debt hereafter issued or incurred by the Authority pursuant to the Indenture, and on a parity basis with the Outstanding Subordinate Debt and all other Subordinate 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 Subordinate Debt Service Reserve Fund will be established for the Series 2022E Bonds.

Statutory Lien. The Act provides that a pledge of the Authority is binding from the time it is made. Any funds, or property pledged, are subject to the lien of a pledge without physical delivery. The lien of a pledge is binding as against parties having any tort, contract, or other claim against the Authority regardless of notice. Neither the resolution stipulating the terms for sale of Authority bonds nor any other instrument creating a pledge need be recorded.

Segregated Funds. The Act establishes the Water and Sewer Enterprise Fund and requires the Authority to operate it in accordance with generally accepted accounting principles. The Revenue Fund created by the Master Indenture constitutes the Water and Sewer Enterprise Fund. The Revenue Fund is required to be held by the Authority, subject to the lien of the Indenture.

According to the Act, subject to the provisions made by the Authority for security of revenue bonds, all revenues, proceeds, and moneys from whatever source derived (except those collected or received from the stormwater fee) which are collected or received by the Authority will be credited to the Revenue Fund and will not, at any time, be transferred to, lapse into, or be commingled with the General Fund of the District, or any other funds or accounts of the District, except for limited circumstances under which such funds shall be transferred to the District to pay for goods and services and property contracted for by the Authority from the District, or as otherwise authorized by law.

See “THE AUTHORITY – Authority’s Relationship to the District” and “CUSTOMER BASE, RATES AND CHARGES – Components of Retail Rates and Charges – Stormwater Fee.”

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 approximate amounts: (i) \$248,000 (4.3%) (Fiscal Year 2013), (ii) \$411,000 (7.2%) (Fiscal Year 2014), (iii) \$417,000 (7.3%) (Fiscal Year 2015), (iv) \$400,000 (7.0%) (Fiscal Year 2016), (v) \$394,000 (6.9%) (Fiscal Year 2017), (vi) \$377,000 (6.6%) (Fiscal Year 2018), and (vii) \$354,000 (6.2%) (Fiscal Year 2019).

[update] According to the Report of the Office of Management and Budget (“OMB”) to the Congress for Fiscal Year 2020, and as confirmed by the Internal Revenue Service, interest subsidy payments to issuers of direct payment bonds processed on or after October 1, 2019, through and including September 30, 2020, will be reduced by 5.9%, unless intervening Congressional action changes the reduction percentage.

[update] Under the Budget Control Act there may be additional sequester orders for future fiscal years through and including fiscal year 2029. 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 2021. The projected debt service shown in “DEBT SERVICE REQUIREMENTS – Outstanding Senior and Subordinate Debt” reflects the known subsidy reduction of 5.9% for Fiscal Year 2020, and assumes Direct Payments equal to 32% of the interest payments on Series 2010A Bonds in each year starting in Fiscal Year 2021. The Authority is obligated to make all payments of principal and interest on the Series 2010A Bonds whether or not such Direct Payments are received.

Limited Remedies of Holders of Subordinate Debt

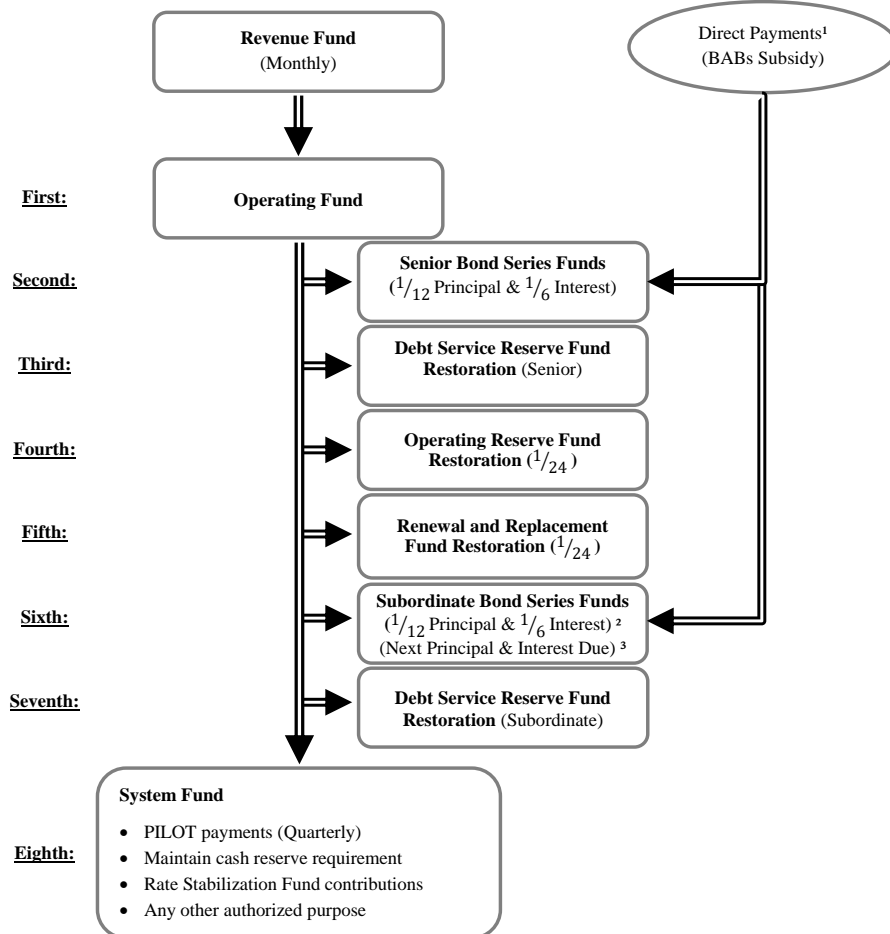
The Indenture prohibits the acceleration of Subordinate Debt if any Senior Debt (including Bonds) is outstanding. The Indenture confers upon the holders of not less than 25% of the aggregate principal amount of

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 2022E 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

[to be updated per new Board policies]

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 2022B/C/D 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, 2021 the balance in the Operating Reserve Fund was \$50.0 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 the original cost value of plant in service, 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, 2021, 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 or designee 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. As of September 30, 2021, the balance in the Rate Stabilization Fund was \$87.7 million. The Authority may withdraw funds from the Rate Stabilization Fund in the future to reduce rate increases that might otherwise be required. [update for FY21: At the direction of the Board, the Authority withdrew \$6 million from the Rate Stabilization Fund in Fiscal Year 2019.] See "FINANCIAL OPERATIONS – Reserve Funds – Rate Stabilization Fund" and "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 250 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 2021, the operating reserves requirement is \$125.5 million. As of September 30, 2021, the Authority had an operating reserve cash balance of \$196.3 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. [In January 2019, Authority staff recommended to further enhance the Authority's cash position and maintain a target of 250 days of cash on hand.] [As of _____, 20__, 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 2022B/C/D BONDS – Direct Payment Bonds – Sequestration."

Additional Board Policy. In addition to the Rate Covenant described above, in 2021, 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 sixty percent (160%) 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:

- i. 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
- ii. 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:

- i. evidence that the Authority has made provision as required by the Indenture for the payment or redemption of all Indebtedness to be refunded; and
- ii. 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 2022E 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 2022E 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, (iii) the Series 2022B/C/D Bonds and (iv) the Series 2022E Bonds, as well as annual and aggregate totals.

Fiscal Year Ending September 30 ¹	Outstanding Subordinate Debt	Series 2022B/C/D Bonds			Refunded Subordinate Debt	Series 2022E Bonds ¹¹	Total Outstanding Subordinate Debt ^{1, 2, 3, 4, 5, 6, 7}	Direct payments Relating to Series 2010A Bonds	Total Subordinate Debt ¹⁰	Outstanding Senior Debt	Total Senior and Subordinate Debt
		Principal	Interest	Total							
2020											
2021											
2022											
2023											
2024											
2025											
2026											
2027											
2028											
2029											
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2105											
2106											
2107											
2108											
2109											
2110											
2111											
2112											
2113											
2114											
Total⁹											

* Certain totals may not add due to rounding. Data shown as of date of posting.

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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, 2022, are shown in the Fiscal Year ending September 30, 2022.

² Outstanding Subordinate Debt is calculated excluding the impact of Direct Payments related to the Series 2010A Bonds. See “SECURITY FOR THE SERIES 2022E BONDS – Direct Payments – Sequestration.”

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 \$[___] million of Commercial Paper outstanding, all of which is assumed to remain outstanding upon issuance of the Series 2022B/C/D Bonds. Debt service is based on a hypothetical amortization of \$[___] million of Commercial Paper over 20 years with an assumed interest rate of [___%].

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

⁶ [delete or extended?] Series 2014B Bonds are weekly-reset variable rate bonds payable through a Liquidity Facility provided by TD Bank, N.A., which expires on July 23, 2020. For calculation of the projected debt service requirement, the all-inclusive rate was assumed to be 2.00% in 2020, 2.50% in 2021 and 3.25% thereafter. The debt is assumed to amortize in Fiscal Year 2041 – Fiscal Year 2050.]

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

⁸ Amounts shown for Fiscal Year 2055 – Fiscal Year 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 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 [___%] was applied to [2022]. Thereafter, the subsidy amount is assumed to be [___%] of the interest payments. See “SECURITY FOR THE SERIES 2022E 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 2022E BONDS – Direct Payments - Sequestration.”

¹¹ Series 2022E Subordinate Bonds anticipated to be issued by [_____, 2022]; Assumes \$[___] million in proceeds issued at par with an equal principal structure from [10/1/2050 - 10/1/2054]; Assumed initial rate of [2.00%] through the assumed mandatory tender date of [10/1/2024] and then assumed [3.25%] thereafter.

Source: Authority records.

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 [update]
(\$ in thousands)

	Original Principal Amount	Interest Rates	Final Maturity	Amount Outstanding as of 10/1/2021 ¹
Senior Debt				
Series 1998 Bonds	\$266,120	5.50%	2028	\$74,270
Series 2014A Bonds	350,000	4.81	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	185,290
Series 2018A Bonds	100,000	5.00	2049	100,000
Series 2018B Bonds	200,000	5.00	2049	189,520
Series 2021 Bond (WIFIA)	156,367	1.87	2060	-
Total Senior Debt				\$1,050,305
Subordinate Bonds				
Series 2010A Bonds	300,000	4.07-5.52 ²	2044	290,890
Series 2012A Bonds	177,430	4.00-5.00	2037	132,700
Series 2012C Bonds	163,215	4.00-5.00	2033	163,215
Series 2014B Bonds	100,000	Variable Rate ³	2050	100,000
Series 2014C Bonds	377,700	3.00-5.00	2044	350,320
Series 2015A Bonds	100,000	2.00-5.00	2045	88,070
Series 2015B Bonds	250,000	5.00-5.25	2044	250,000
Series 2016A Bonds	389,110	5.00-5.25	2039	377,575
Series 2019A Bonds	104,010	4.00-5.00	2049	104,010
Series 2019B Bonds	58,320	5.00	2037	58,320
Series 2019C Bonds	99,505	Variable Rate	2054	99,505
Series 2019D Bonds	343,160	1.713-3.207	2048	339,885
Series 2022A Bonds	294,305	1.56-2.53	2036	-
Additional Subordinate Obligations				
TD Bank Master Letter of Credit	\$16,193	Variable Rate	N/A	-
Government Notes				
Jennings Randolph Reservoir Debt	\$18,269	3.25%	2041	-
Commercial Paper Notes ("CP Notes")				
Series B CP Notes	\$28,752	Variable Rate	2021	10,773
Series C CP Notes	\$29,200	Variable Rate	2021	28,752
Extendable Municipal Commercial Paper Notes ("EMCP Notes")				
Series A EMCP Notes	\$50,000	Variable Rate	2021	29,200
Total Subordinate Debt				50,000
Total				<u>2,473,215</u> \$3,472,295

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 2022E 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.
- 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 in Table 1, as of October 1, 2021, the Authority had Senior Debt outstanding in the aggregate principal amount of approximately \$1 billion consisting of its Public Utility Senior Lien Revenue Bonds, Series 1998 (the “Series 1998 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”), its Public Utility Senior Lien Revenue Bonds, Series 2017B (the “Series 2017B Senior Bonds”), its Public Utility Senior Lien Revenue Bonds, Series 2018A (Green Bonds) (the “Series 2018A Senior Bonds”) and its Public Utility Senior Lien Revenue Bonds, Series 2018B (the “Series 2018B Senior Bonds”). The Authority expects to issue additional Senior Debt in the future to finance capital improvements to the System. See “CAPITAL IMPROVEMENT PROGRAM.”

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 October 1, 2021, the Authority had Subordinate Debt outstanding in the aggregate principal amount of approximately \$2.47 billion.

Subordinate Bonds. As of October 1, 2021, approximately \$2.35 billion of Subordinate bonds was outstanding, consisting of its Public Utility Subordinate Lien Revenue and Revenue Refunding 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.”

[ADD DESCRIPTION OF FORWARD PURCHASE AGREEMENT WITH JP MORGAN APPLICABLE TO SERIES 2022A BONDS.]

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 [January 1, 2022], \$[_____] of Government Notes was outstanding. Upon the issuance of the Series 2022B/C/D 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 Toronto Dominion Bank (“TD Bank”) on May 15, 2020. In connection with the TD Bank’s issuance of the Letters of Credit, the Authority and TD Bank entered into a Reimbursement Agreement for each series of CP Notes, each dated as of May 1, 2020, 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, as amended) and Fee Obligations (as defined in each Reimbursement Agreement) to TD Bank. TD Bank’s Obligations, the Reimbursement Obligations and Fee Obligations are Subordinate Debt under the Indenture. As of [January 1, 2022], approximately \$28.8 million of the Series B CP Notes and \$29.2 million of the Series C CP Notes were outstanding.

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 [January 1, 2022], \$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 21.3 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 \$55.8 million as of September 30, 1998, to \$312.0 million as of September 30, 2021. The Authority’s operating revenues have increased from \$258.4 million in Fiscal Year 1998 to \$770.5 million in Fiscal Year 2021.

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 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*.

In 2018, the Authority received (i) the Utility of the Future Award from the *National Association of Clean Water Agencies*, (ii) Honorable Mention in the Spaces, Place and Cities category in the 2018 Innovation by Design Awards Program by *Fast Company*, (iii) Global Best Project Award – Award of Merit in Water/Wastewater for the Anacostia River Tunnel project from *Engineering News-Record*, (iv) Mid-Atlantic Best Project Awards – Award of Merit Water/Wastewater for the Anacostia River Tunnel from *Engineering News-Record*, (v) Tunneling and Underground Space Award – Sustainability Initiative of the Year from the *International Tunneling Association* for the DC Clean Rivers Project, (vi) 2018 Outstanding Shotcrete Project of the Year in the Underground Category from the *American Shotcrete Association* for the Tuber Creek Sewer Repair, (vii) Excellence in Dispute Avoidance and Resolution Award from the *Disputes Review Board Foundation*, (viii) Distinguished Budget Presentation Award from the *Government and Finance Officers Association*, (ix) Certificate of Achievement for Excellence in Financial Reporting from the *Government and Finance Officers Association*, (x) 100 Best Fleets from *National Association of Fleet Administrators*, (xi) Platinum Peak Performance Award recognizing 100 percent compliance with the NPDES permit limits for a consecutive five-year period from *National Association of Clean Water Agencies*, (xii) Certification in Business Continuity Management System, (xiii) Conditional Accreditation from the *Emergency Management Accreditation Program*.

In 2020, the Authority’s Office of Marketing and Communications accepted a (i) Public Communication and Outreach Program Award from the Water Environment Federation (WEF) for its first-ever children’s book, “Wendy, Where Does the Wastewater Go?” In the book, the Authority’s waterdrop mascot takes a group of students on a tour through each of the steps of the wastewater treatment process, beginning in a home where the water is first used, and ending with cleaned water being released back into the Potomac River.

In 2021, The National Association of Clean Water Agencies (NACWA) honored the Authority with a Platinum9 Award for nine consecutive years of 100% compliance with the requirements of the U.S. Environmental Protection Agency’s National Pollutant Discharge Elimination System (NPDES).

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 2022 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 “– Authority’s Relationship to the District” and “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 Operations, 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, Chair	District of Columbia	December 2016	September 2024
Rachna Bhatt	District of Columbia	July 2012	September 2022
David Franco	District of Columbia	May 2017	September 2023
Anthony Giancola	District of Columbia	May 2021	September 2024
Christopher Herrington	Fairfax County	December 2021	September 2025
Floyd Holt	Prince George’s County	February 2019	September 2022
Fariba Kassiri	Montgomery County	June 2019	May 2024
Tara Jackson	Prince George’s County	January 2021	September 2023

* 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. [Update as needed]

Tommy Wells (District of Columbia)

Mr. Wells was appointed as principal member of the Board in December 2016 and as Chair 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.

Rachna Bhatt (District of Columbia)

Ms. Bhatt was appointed as a principal member to the Board in July 2012. Ms. Bhatt serves as Director at HRGM Corporation, and has been with HRGM since 2001. Previously, Ms. Bhatt served as an Associate for Wachovia Securities, and as a consultant for Deloitte & Touche, LLP. Ms. Bhatt serves as a board member for the Professional Women in Construction and holds a Virginia Class A Contractor's License. Ms. Bhatt holds and 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.

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 several businesses in the District, including Discount Mart, Trumpets Restaurants, Tracks Nightclub, and Universal Gear. 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.

Anthony Giancola (District of Columbia)

Mr. Giancola was appointed a principal member of the Board in 2021. He is a licensed professional engineer in the District of Columbia. His active duty career in the Civil Engineer Corps, U. S. Navy, achieving the rank of Commander, included tours in the Public Works (4), Contracts, Seabees, and as a Staff Civil Engineer (2). Since military retirement he has worked as the Public Works Director, City of Takoma Park, Maryland and Chief Engineer, Public Works Department, Frederick County, Maryland. He served as the Executive Director, National Association of County Engineers from October 1993 - June 2011 before retirement. He is a former chair of the Transportation Research Board (TRB) Low Volume Roads Committee (2001-2007) and serves on the Roadway Safety Foundation Advisory Committee from 1997 - present. Active in community activities he was the President of Plan Takoma, Inc., a non profit 501(c) 3 community organization in the District of Columbia from 1984 - 1998; was an appointed member of the DC Convention Center Community Advisory Committee (1995 to 2015 serving as 2nd Vice President); and an appointed Alternate member of the Board of Directors of the Washington Metropolitan Area Transit Authority (2007 - 2011 District of Columbia and 2011 - 2016 Federal).

Christopher Herrington (Fairfax County)

Mr. Herrington was appointed a principal member of the Board in 2021. He began his appointment as director of the Department of Public Works and Environmental Services. He has over 25 years of local government experience with the City of Austin, Texas. He served as the assistant director for the Watershed Protection Department and as Austin's senior environmental policy officer, advising public officials, city departments and the public on a wide variety of development projects. While serving as Austin's senior environmental policy officer, Herrington worked to ensure that the protection of Austin's natural resources and residents received the highest priority in all public and private development. He has a dual background in ecology and engineering and has authored numerous publications on water quality and the environment. Herrington has a Bachelor of Science in Biology and a Master of Science in Civil Engineering, both from the University of Texas at Austin.

Floyd Holt (Prince George's County)

Mr. Holt was appointed a principal member of the Board in 2019. Mr. Holt is Deputy Chief Administrative Officer for Government Infrastructure, Technology and the Environment for Prince George's County Maryland. He previously worked as Prince George's County's Deputy Director of Central Services. Mr. Holt served as Chief of University Police at Gallaudet University; the world's only liberal arts university for the deaf before joining the Washington Suburban Sanitary Commission as Chief of Public Safety and Internal Investigations. He was later appointed Director of General Services, overseeing Fleet Management and Transportation, Warehousing, Quality Assurance, Procurement and Contracting. Mr. Holt attended the University of Maryland where he received a Bachelor's Degree in Government and Politics with a minor in Law Enforcement. Mr. Holt also holds a Master's in Business Administration from Gallaudet University.

Tara H. Jackson (Prince George's County)

Ms. Jackson was appointed a principal member of the Board in 2021. In December 2020, Tara H. Jackson assumed the role of Acting Chief Administrative Officer of Prince George's County. Prior to that, she served as Deputy

Chief Administrative Officer for Government Operations, having joined the County Executive's leadership team in December 2018. Ms. Jackson has served in the County's Office of Law, serving as Deputy County Attorney for Government Operations. As part of the office's leadership team, she provided advice and counsel to the County Executive, Senior Executive Staff, and department and agency leadership. She earned a Bachelor of Science from James Madison University, a Juris Doctor from the University of Maryland School of Law, and a Master of Divinity in Leadership Development from the Phoenix Seminary. She is a member of the Board of Directors of the Foundation Schools and serves on the Character Committee of the Fourth Appellate Judicial Circuit.

Fariba Kassiri (Montgomery County)

Ms. Kassiri was appointed principal member of the Board in 2019. Ms. Kassiri is the Montgomery County Deputy Chief Administrative Officer (DCAO) and joined the Office of the County Executive in 2006. She is responsible for assisting the Chief Administrative Officer (CAO) in managing the operations and performance of County Government. In doing so, she provides administrative oversight to the directors of County departments and ensures that departments' core activities align with the County's Effective and Sustainable priority outcome and comply with all applicable policies, procedures, and regulations. Prior to joining Montgomery County, Ms. Kassiri spent four years as Special Advisor to the Prince George's County Chief Administrative Officer, providing recommendations to the County Executive and Chief Administrative Officer on a wide array of issues, programs, and policies. Ms. Kassiri holds a Bachelor of Science degree in Civil and Environmental Engineering from the University of Colorado, and a Master's degree in Public Policy specializing in finance and management from the University of Maryland.

Organizational Structure

[update]

The Authority's day-to-day operations are managed by the Chief Executive Officer (CEO), who is appointed by the Board. The CEO is supported by the Chief Financial Officer and Executive Vice President, Finance and Procurement (CFO); the Chief of Staff; the Executive Vice President, Operations and Engineering; the Executive Vice President, Performance; the Executive Vice President, Administration; and the Executive Vice President, Customer Service. Also reporting to the CEO is the Executive Vice President, Legal Affairs and the Executive Vice President of People and Talent.

The CFO oversees the departments of Finance, Accounting, Budget and Rates and Revenue, and Procurement. The Chief of Staff is responsible for the evaluation, oversight and implementation of all Authority business-related processes, policies, operating procedures. The Executive Vice President of Operations and Engineering oversees Water Operation and Water Quality, Engineering, Wastewater, Permit Operation, and Clean Rivers. The Executive Vice President of Administration oversees Security, Safety, Emergency Management, Fleet Management, and Facilities Management.

The Executive Vice President of Performance oversees Sustainability & Watershed Management, Integration & Delivery, Business Performance Management, and Enterprise Program Management. The Executive Vice President of Customer Experience oversees Customer Care, Marketing & Communication, Business Relations, IT (Infrastructures and application).

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.

David Gadis, CEO and General Manager

Mr. Gadis was appointed CEO and General Manager in 2018. Mr. Gadis brings 20 years of industry experience to the role, most recently as Executive Vice President of Veolia North America (VNA), where he led North American business development operations, and was responsible for corporate growth and \$3 billion in revenue. Mr. Gadis has been a frequent presenter at utility and government services conferences, including the U.S. Conference of Mayors, speaking on both Underground Infrastructure and Managing Utilities, as well as the National League of Cities and the National Association of Public Private Partnerships. Mr. Gadis earned a basketball scholarship to Southern Methodist University and was a four-year basketball player and team captain before graduating from SMU with a B.A. in Marketing Communications.

Kishia L. Powell, P.E., Chief Operating Officer and EVP

Kishia L. Powell joined DC Water in May 2020 and serves as the Authority's Chief Operating Officer and Executive Vice President, overseeing all operating departments, as well as the Customer Service and Administration clusters. Ms. Powell comes to the Authority from her previous role as Commissioner of the City of Atlanta's Department of Watershed Management, where she had served since June 2016. With expertise in sustainable

infrastructure management and utility operations, she has leveraged 22 years of experience in both the public and private sectors to successfully serve municipalities across the United States and London, England. In 2019 and 2020 she was recognized as one of Georgia's Top 100 Influential Women in Engineering Georgia Magazine and received the WaterNow Alliance's 2019 Impact Award for leadership in closing the country's first publicly offered Environmental Impact Bond. On behalf of DC Water, COO Powell serves as the President of the National Association of Clean Water Agencies. COO Powell is a licensed Professional Engineer in the District of Columbia, Virginia, and Maryland. She holds a Bachelor of Science degree in Civil Engineering from Morgan State University's Clarence M. Mitchell, Jr. School of Engineering.

Matthew T. Brown, CFO and Executive Vice President, Finance and Procurement

Mr. Brown was appointed CFO and Executive Vice President, Finance and Procurement in 2017. From 2015 until his appointment as Chief Financial Officer and Executive Vice President, Finance and Procurement, Mr. Brown served as a principal member and Chair of the Board and as the Director of the Office of Budget and Finance. 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 Sewerage District, Public Financial Management and the Washington Metropolitan Area 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.

Wayne Griffith, Chief Strategy and Performance Officer and EVP, Strategy and Performance

Wayne Griffith serves the Authority as Chief Strategy and Performance Officer and Executive Vice President, Strategy and Performance. Mr. Griffith is a utility management professional with over 36 years' experience in the water infrastructure market. He promotes and delivers programs to optimize assets, improve revenues, and enhance resources, achieving improved levels of performance and service. He is responsible for the functions for the development and execution of the Authority's strategic plan, Blueprint 2.0. This includes Strategic Management, Enterprise Program Management, Sustainability & Innovation program development and management, and Enterprise Risk Management. He has a unique blend of industry leading private sector operations management, niche utility business development and consulting experience. He has a B.S. in Environmental Engineering from Temple University and M.S. in Environmental Engineering from Michigan State University.

Keith J. Lindsey, Chief of Staff

Keith J. Lindsey initially joined the Authority in 2017, and currently serves as Chief of Staff. In this capacity, Mr. Lindsey is responsible for advising and delivering on programs and initiatives related to the specific needs of the Office of the CEO. These initiatives include the CEO's programs to improve internal controls, transparency and accountability. Mr. Lindsey partners across all Divisions to execute the CEO's vision. Mr. Lindsey holds a Master of Science in Management with Troy University with a focus on Leadership and Organizational Design. He also holds a Bachelor of Arts in Psychology with a focus on Adult Education from Saint Leo College. Additionally, he has completed Executive Education Programs with Harvard, The Wharton School of the University of Pennsylvania, Duke Corporate University, and the Center for Creative Leadership. Mr. Lindsey retired honorably from the United States Air Force in 1999, after 20 years of service, including eight years stationed in Europe and Asia.

Kirsten B. Williams, Chief Communications and Stakeholders Engagement Officer, and EVP

Kirsten B. Williams has served as Chief Communications and Stakeholders Engagement Officer, and EVP for the Authority since 20[] and has over twenty years of professional communications and stakeholder engagement experience. Most recently, Kirsten served as the Deputy Executive Director of the Public Service Commission of the District of Columbia. She previously served as the Senior Public Affairs Manager at Pepco. In this role, Ms. Williams addressed policy and legislative matters in the District, as well as stakeholder relations with government entities, community leaders, business organizations and non-profit groups. Ms. Williams has also served as an Attorney Advisor at the Federal Energy Regulatory Commission where she provided counsel on matters related to market-based rates and regional stakeholder processes. She earned two Bachelors of Science degrees in Public Relations and Public Communications from Appalachian State University, a Master of Public Administration from Appalachian State University and a Juris Doctorate from Howard University School of Law. Ms. Williams has served as a member of the Appalachian State University Board of Visitors and on Appalachian's Department of Communication Professional Advisory Board.

Lisa Stone, Chief People and Inclusion Officer and EVP, People and Talent

Lisa Stone is the Authority's Chief People and Inclusion Officer and Executive Vice President of People and Talent, where she is accountable for developing and executing the Human Capital and Diversity strategy for the

Authority. Ms. Stone has over 20 years of leadership experience in Human Resources, specializing in: human capital change management strategy, leadership development, and diversity & inclusion. Prior to joining the Authority, MS. Stone served as: VP of Human Resources for Freddie Mac, a mission based organization, making home ownership possible for millions of families and individuals; Head of Human Resources for New Media Strategies, a global leader in online promotion and protection; Global Human Resources Business Partner for AOL-Time Warner, a multinational mass media and entertainment company; and, various leadership positions at HSBC. Ms. Stone facilitates several diversity leadership trainings for a variety of organizations including, the National Society of Black Engineers (NSBE), the National Association of Black Accountants (NABA), the American Society for Training and Development (ASTD), as well as several nonprofit organizations.

Marc K. Battle, Esq., Chief Legal Officer and Executive Vice President

Marc K. Battle, Esq. serves DC Water as Chief Legal Officer and Executive Vice President, Government and Legal Affairs. Joining the Authority in November 2019, Mr. Battle came to DC Water from Pepco, where he served in several roles, most recently as Region Vice President. As Executive Vice President, Legal Affairs, Mr. Battle manages, coordinates and performs all actions necessary to provide competent, timely legal advice to the CEO, the Board of Directors and all offices and departments of the Authority. Additionally, Mr. Battle is responsible for directing a team of attorneys and professional staff engaged in a wide range of legal matters, including regulatory compliance, litigation, FOIA, contract, employment and tort law. Mr. Battle is a graduate of the University of the District of Columbia and holds a J.D. from the Howard University School of Law. He serves as board member of the Greater Washington Urban League, Leadership Greater Washington, the DC Chamber of Commerce and the University of the District of Columbia Foundation.

Authority's Relationship to the District

General. In accordance with section 207(e) of the Act, the District retained full legal title to, and a complete equitable interest in, the System; however, the System must remain under the control of the Authority for as long as any Authority revenue bonds remain outstanding. The District also has the power to appoint certain Board members, see “– Board of Directors” above.

According to the Home Rule Act, as amended by the “District of Columbia Water and Sewer Authority Independence Preservation Act,” P.L. 110-273, enacted by the Congress on July 15, 2008, (i) the authority of the District’s Chief Financial Officer to hire, supervise and remove certain financial management employees, set forth in Section 424A of the Home Rule Act (D.C. Official Code Section 1-204.25), 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.

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.”

The Act provides that, subject to the provisions made by the Authority for security of revenue bonds, all revenues, proceeds, and moneys (except those collected or received from the stormwater fee) which are collected or received by the Authority will be credited to a segregated fund and will not, at any time, be transferred to, lapse into, or be commingled with the General Fund of the District or any other funds or accounts of the District, except for limited circumstances under which funds will be transferred to the District to pay for goods and services and property contracted for by the Authority from the District, or as otherwise authorized by law. See “SECURITY AND SOURCE OF PAYMENT FOR THE [SERIES 2022 BONDS] – Lien on and Pledge of Net Assets – *Segregated Funds.*”

The Act also 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 DC Water Consumer Protection Amendment Act of 2018, DC Law 22-299, effective April 11, 2019 (the “OPC Act”), amended the Act authorizing the Office of the People’s Counsel, an independent agency of the District of Columbia government to (1) represent District of Columbia rate payers at DC Water administrative hearings; (2) represent the interests of and advocate for District of Columbia ratepayer’s at public hearings; (3) represent and advocate for District of Columbia ratepayers at proceedings before local and federal regulatory agencies and courts; (4) investigate the services given by, and the rates charges by, the Authority; and (5) advise and educate the Authority customers about their legal rights and responsibilities pursuant to the rules governing service by the Authority. The OPC Act also requires the Authority to provide the public at least 45 days notice to consider adjustments to water and wastewater rates before a public hearing is held and to provide a written response to the OPC if it submits any written comments on the establishment or adjustments of water and wastewater rates. The OPC Act will not have a material impact on the Authority or its finances. See “Customer Base, Rates and Charges – Customer Assistance Programs”.

The Fiscal Year 2019 Budget Support Act of 2018, D.C. Law 22-168, effective October 30, 2018 (the “Budget Act”), amended the Act authorizing the Mayor to establish a financial assistance program to assist residential and nonprofits organizations located in the District with their payment of the Clean Rivers Impervious Area Charge. The District also included \$7 million to fund the programs. On December 28, 2018, DC Water expanded its Customer Assistance Program (CAP) to establish the CAPII program to provide benefits to customers whose household income exceeded the current CAP program of 60% of the state median income, but below 80% of the area median income. DC Water also transferred \$6 million from its Rate Stabilization Fund to fund this program. Based on the level of customer participation in these programs during FY 2019, and the amount of funds remaining, the District and DC Water plan to carryover the remaining funds into FY 2020. The Budget Act will not have a material impact on the Authority or its finances.

Memoranda of Understanding. 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 2018, the Authority made a PILOT payment to the District in the amount of \$16.3 million. 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 the amount of the ROW Fee payment of \$5.1 million to the District for Fiscal Years 2015 to 2024 and revised 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 wastewater 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.

Proposed Legislation. [Any Council bills that have been introduced that could materially impact the Authority that the Authority is aware of?]

Employees and Labor Relations

The total number of authorized positions for the Authority for Fiscal Year 2022 is 1,253. As of November 1, 2021, the Authority had 1,105 full-time equivalent employees, of whom 670 were represented by five unions:

- American Federation of Government Employees (“AFGE”) consisting of Locals 631, 872 and 2553;
- American Federation of State, County and Municipal Employees (“AFSCME”), Local 2091; and,
- National Association of Government Employees (“NAGE”), Local R3-06.

The Authority and all five unions operate under a single Master Agreement on Compensation, which is effective from October 1, 2019 through September 30, 2023.

The Authority is also a party to five separate working condition agreements with each union. The AFGE 2553 and AFSCME Local 2091 working condition agreements expired on September 30, 2021, but the terms of each agreement remain in effect and the Authority expects the agreements to be renewed for an additional term subject to further negotiations. The NAGE R3-06 working condition agreement is effective for a 4-year term from October 1, 2019 through September 30, 2023. The AFGE 631 and 872 working condition agreements are subject to renewal negotiations at any time moving forward (until negotiations commence, the same terms and conditions of each working condition agreement remain in full force and effect).

The percentage of current employees eligible to retire within the next five and ten years (based on age and years of service) is shown in Table 2.

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

	12/01/2021	12/31/2026	12/31/2031
Employees	6%	17%	31%
Directors and Executives	8%	25%	42%

Source: Authority records.

People & Talent within the Authority’s Human Resources department launched a Succession Development Pilot Program in the 3rd Quarter of the fiscal year 2019. The pilot program includes critical positions from both leadership and operational rolls across the Authority. The program uses a systematic approach of identifying critical positions, developing internal talent, retaining organizational knowledge, and fostering interdepartmental collaboration.

Retirement/Pension Plan

Most DC Water employees participate in Defined Contribution type retirement plans. In the 401(a) Defined Contribution plan, all contributions are made by DC Water, who contributes 7% of employee base pay each pay period. An additional matching contribution is made (dollar for dollar) when employees defer money into the 457(b). The maximum match is 5%. Employees with salaries more than the social security wage base receive an additional 5% contribution each pay period for the salary above the social security wage base. This plan requires three (3) years of service to be fully vested (Cliff Vesting Schedule). In the 457(b) Deferred Compensation plan, employees may defer salary on a pre-tax basis up to the annual limits established by the IRS. Finally, in the Retirement Health Savings Plan, non-union employees who leave DC Water after 5 years of service with an unused sick leave balance

of equal or greater than 100 hours have the value of the sick leave cashed out and deposited into a Retirement Health Savings Plan for the benefit of the employee.

The Authority has a small group (61 as of September 2021) of employees participating under Federal Benefits. Most of the employees were hired before October 1, 1987. In the Civil Service Retirement (CSR) plan, each pay period DC Water contributes 7% of base pay and the employee contributes 7% of base pay into the CSR system. When these employees retire, their pension is paid by the Federal Government and administered by the Office of Personnel Management. DC Water bears no post retirement cost. The Federal Retirement Health and Life plan consists of a grandfathered group who may continue to participate in the Federal Health Benefits Plan at the same cost share arrangement as active employees. The employer share is assumed by the federal government and administered by OPM after retirement.

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 2021. 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, 2021 with coverage through July 1, 2022. Since the passage of the Terrorism Risk Insurance Act of 2002 ("TRIA"), terrorism coverage is included under all insurance policies.

Risks from Unexpected Events

General

The Authority's infrastructure could sustain damage and loss of use as a result of certain unexpected events, such as terrorist attacks, extreme weather events and other natural occurrences, fires and explosions, spills of hazardous substances, strikes and lockouts, sabotage, wars, blockades and riots. While the Authority has attempted to address the risk of loss through the purchase of insurance, certain of these events may not be covered. Furthermore, even for events that are covered by insurance, the Authority cannot guarantee that coverage will be sufficient or that insurers will pay claims in a timely manner. From time to time, the Authority may change the types of, and limits and deductibles on, the insurance coverage that it carries. The Authority cannot predict what effects any of these events may have on the Authority's ability to generate Revenues, but the effects may be materially adverse.

Global Climate Change

Numerous scientific studies on global climate change show that, among other effects on the global ecosystem, sea levels will rise, extreme temperatures will become more common and extreme weather events will become more frequent as a result of increasing global temperatures attributable to atmospheric pollution. Over the next 25 to 100 years, such extreme events and conditions are expected to increasingly disrupt and damage critical infrastructure and property as well as regional economies and industries that depend on natural resources and favorable climate conditions. Disruptions could include more frequent and longer-lasting power outages, fuel shortages and service disruptions. Coastal public infrastructure may be threatened by the continued increase in the frequency and extent of high-tide flooding due to sea level rise, and inland infrastructure, including access to roads, the viability of bridges and the safety of pipelines, may be affected by increases in the severity and frequency of heavy precipitation events. Near-coastal areas like the greater Washington, D.C. metropolitan area (which contains areas of land that are at or near sea level) may be at risk of substantial flood damage over time, affecting private development and public infrastructure. As a result, many residents, businesses, and governmental operations within this area could be negatively impacted and possibly displaced, reducing the number of rate payers and users of the system. In addition, local public agencies and governmental entities, could be required to mitigate these climate change effects at a potentially material cost.

Ensure a Safe & Reliable Computing Environment

As a retail utility and critical infrastructure asset, the Authority is at risk from an array of threat sources including the casual hacker to a state sponsored cyber terrorist. It is the Authority's priority and responsibility to maintain a safe and reliable computing environment 24/7. The Authority was the first water utility to adopt the voluntary Cyber Security framework outlined in Executive Order 13636, "Improving Critical Infrastructure Cyber Security," issued in February 2013. This Cyber Security framework is now formally known as the NIST Cybersecurity Framework (the "NIST Framework"). The NIST Framework forms the foundation of the Authority's Cyber Security program. Coupled with a layered defense approach, a default deny strategy, a privilege access control policy and a

comprehensive cyber awareness program, the Authority strives to ensure the highest level of protection across its computing environment.

The NIST Framework focuses on five (5) primary pillars of excellence. The Authority helps to:

Identify – Develop an organizational understanding to manage cybersecurity risks to systems, people, assets, data and capabilities. The activities in the Identify Function are foundational for effective use of the NIST framework. Understanding the business context, the resources that support critical functions, and the related cybersecurity risks enables an organization to focus and prioritize its efforts, consistent with its risk management strategy and business needs. Examples of outcome categories include: Asset Management, Business Environment, Governance, Risk Assessment and Risk Management

Protect – Develop and implement appropriate safeguards to ensure delivery of critical services. The Protect Function supports the ability to limit or contain the impact of a potential cybersecurity event. Examples of outcome categories include: Identity Management and Access Control, Awareness and Training, Data Security, Information Protection Processes and Procedures and Patch Management and Protective Technology.

Detect – Develop and implement appropriate activities to identify the occurrence of a cybersecurity event. The Detect Function enables timely discovery of cybersecurity events. Examples of outcome categories include: Anomalies and Event detection, Security Continuous Monitoring and Correlation Analysis.

Respond – Develop and implement appropriate activities to take action when cybersecurity incident is suspected or detected. The Respond Function supports the ability to contain the impact of a potential cybersecurity incident. Examples of outcome categories include: Response Planning, Communications Analysis, Mitigation and Incident Management.

Recover – Develop and implement appropriate activities to maintain plans for resilience and to restore any capabilities or services that were impaired due to a cybersecurity incident. The Recover Function supports timely recovery to normal operations to reduce the impact from a cybersecurity incident. Examples of outcome categories include: Recovery Planning, Backup and Replication and Recovery Management.

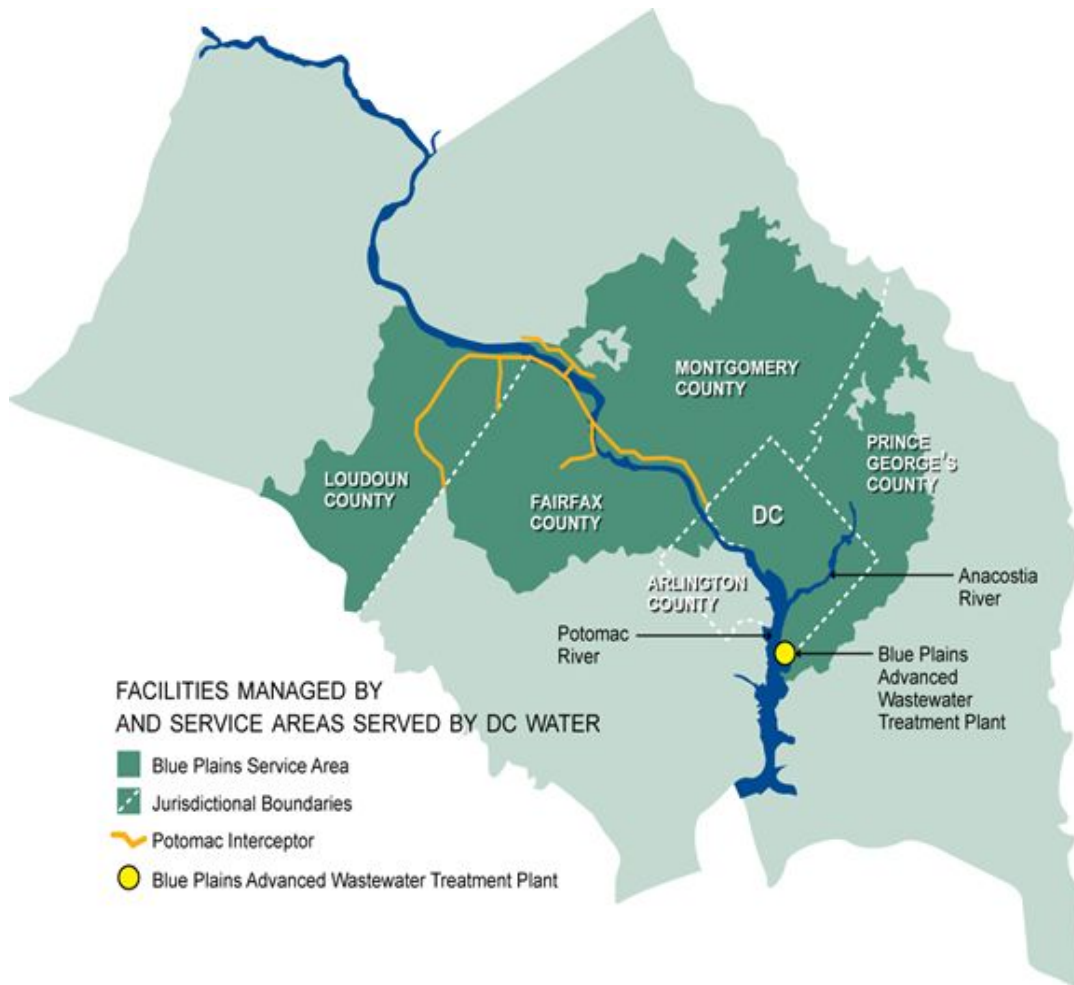
In addition to the NIST Framework, the Authority has implemented information systems with consideration to IT-related risks that could impact the Authority or the Water and Waste Water Systems of the Authority. The information system's goal is met through the following security objectives: confidentiality – 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 also has an established network of resources, which it leverages to proactively assess new and evolving risks including: vendors, WaterISAC, DHS, auditors and peer utilities. These resources contribute to continuously improving the Authority's capabilities. Finally, 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.

Adopting the NIST Framework and implementing information systems alone will not ensure the Authority and the Water and Waste Water Systems are protected from a cyber-threat. The Authority's success is achieved by institutionalizing the elements of the NIST Framework and information system, so it becomes the way of doing business not something else the Authority does.

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

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 384 mgd.

Service Area

The Blue Plains service area includes the District (retail service), parts of Arlington, 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, 50,000 manholes, 25,000 catch basins, 22 flow metering stations, nine sewage pumping stations, 16 stormwater pumping stations, seven miles of tunnels (23-feet in diameter and buried over 100 feet deep), 11 drop shafts, 25 diversion chambers and approximately 200 green infrastructure facilities. 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, Maryland, and Pennsylvania 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 August 26, 2018. 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.

The DC Clean Rivers Project continues on schedule. The FY 2022 – FY 2031 CIP includes approximately \$1.12 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 –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

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

[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 and incorporated these changes into the amended 2005 LTCP Consent Decree.

[update] 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”). [update: The Authority submitted an application to the DOEE for the Chapter 3 Operating Permit in March 2008 and the application was updated in 2016 to include all new sources.]

Future Matters. [update] 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, 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 that case was closed. However, the EPA’s revised decisional rationale was challenged in a separate proceeding. On

August 12, 2019, the U.S. District Court for the District of Columbia held that the TMDL for E. coli that DOEE developed and the EPA's approval (based on its revised decision rationale) did not comply with the Clean Water Act. The court vacated the TMDL, but stayed the vacatur for one year to allow for the development of new TMDL. The Authority will monitor the development of new TMDL and will advocate, as necessary, on behalf of itself and its rate payers.

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)
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
2018	34,343	94.1	132.5
2019	35,189	96.4	135.0
2020	33,639	92.2	129.1
2021	34,719	95.1	133.1

Source: Authority 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 \$187 million, which is accounted for in the CIP. See "CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Washington Aqueduct Projects."

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 384 mgd currently exceeds the day-to-day demands and peak requirements of their respective service areas.

Finished water from the Dalecarlia WTP and McMillan WTPs is pumped by the Dalecarlia Pumping Station and Bryant Street Pumping Station, respectively, to the water distribution system. The water distribution system is also served by two pump stations (16th and Alaska Pump Station and Anacostia Pump Station), four underground reservoirs (Brentwood, Soldier's Home, Fort Reno No. 1, and Fort Stanton No.1), three elevated tanks (St. Elizabeth's Elevated Tank, Good Hope Elevated Tank and Boulevard Elevated Tank) operated by the Authority. Also, three reservoirs owned and operated by the Aqueduct (Foxhall, Van Ness and Fort Reno Reservoir No. 2) serve the water distribution system. The combined facilities can store up to 102 million gallons ("mg") of finished water. Flexibility in the distribution system is provided in that DaleCarlia and Bryant Street Pump Station each can pump to the reservoirs in the distribution system as circumstances warrant.

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 increased from 72.14% in 2017 to 74.33% in 2018. 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.

[update] The Authority estimates the cost of the lead service line replacement program in the CIP at \$63.2 million over the next 10 years. From the inception of the line replacement program through September 30, 2018, the Authority expended \$214.8 million on the lead service line replacement program. See "CAPITAL IMPROVEMENT PROGRAM – Categories of CIP Projects – Water Projects."

The Lead Water Service Line Replacement and Disclosure Amendment Act of 2018, D.C. Law 22-241, effective March 13, 2019 and as amended by D.C. Law 23-229 effective March 16, 2021 (the "Line Replacement Act"), established new programs that will fund the replacement of the lead service lines on private property. The Authority is prohibited, however, from replacing only a portion of a lead water service line that is on public property. The Line Replacement Act accomplishes four things:

- (1) Full Lead Water Service Line Replacement. The Line Replacement Act authorizes the Authority to use District appropriated funds to pay for the costs to replace the lead water service line on private property when the Authority is replacing the lead water service line in conjunction with water main replacements or after an emergency replacement of the water main or lead water service line;
- (2) Lead Water Service Line Replacement Payment Assistance Program. In cases where the water service line on public property is not lead, the District has budgeted appropriated funds to assist all District homeowners to provide 50% to 100% of the costs, depending on their household income, to pay for the lead water service line replacement on private property. This provision was funded by the District's budget and included in the Authority's Fiscal Year 2022 budget. Under this program, the Authority is responsible for certifying that the work is done, and paying the contractor from funds provided by the District;
- (3) Voluntary Lead Service Pipe Replacement Program. In cases when there are lead service lines on private property and in public space, but the District's funds are insufficient to cover the costs, or where the Authority does not have any planned activities to replace water mains and the lead water service lines connected to them within two years, or the street is not under a DDOT moratorium, the property owner may participate in the Authority's Voluntary Lead Service Pipe Replacement program. Under this program, the property owner agrees to pay the costs for the replacement of the lead pipe on private property and the Authority will replace the pipe in the public space at the same time; and
- (4) Education. Creates a new series of outreach, education and disclosure requirements for home sellers and real estate agents to increase awareness of lead service issues.

As of the date of this Official Statement, the District has proposed funding for both these programs in the Fiscal Year 2022 Budget, but their implementation will not have a material impact on the Authority or its finances.

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 have 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 wastewater 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 2003, the Aqueduct together with the Fairfax County Water Authority and the WSSC founded the Potomac River Drinking Water Source Protection Partnership to further the goals of watershed protection. In 2014, the Aqueduct and the Authority collaborated with the Metropolitan Washington Council of Governments to pilot a web-based regional source water assessment tool (“WaterSuite”) building on the static 2002 assessment prepared by the Interstate Commission on the Potomac River Basin. The WaterSuite tool emphasizes chemicals stored throughout the watershed and draws upon federal, state, and local databases for insights into potential chemical contaminants. The physical security of the Aqueduct facilities that (i) collect water from the Potomac River, (ii) process the water to Safe Drinking Water Act standards, and (iii) deliver the water into the Authority’s distribution system are all maintained via a wide variety of means including gated facilities, armed guards, video surveillance, and employee protocols. All Aqueduct employees have current federal background investigations that are required for their employment. The electronic business records of the Aqueduct are handled on systems accredited by the Department of Defense to give a high assurance of control over unauthorized intrusion. The industrial control systems that function to control treatment plant processes and data transfer operate in a contained environment (i.e., no connection to the Internet). These systems are also accredited by Department of Defense and Department of the Army agencies and are constantly monitored for possible compromise. The Aqueduct is currently upgrading all elements of its industrial control system for both increased reliability as well as security.”

For information regarding the cyber security measures taken to protect the Authority and the Water and Waste Water Systems, see “THE AUTHORITY – Risks from Unexpected Events – Ensure a Safe and Reliable Computing Environment.”

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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	Mandates ²	Health and Safety ³	Board Policy ⁴	Potential Failure ⁵	High Profile Good Neighbor ⁶	Good Engineering/High Payback ⁷	Good Engineering/Lower Payback ⁸	Total
FY 2022	154,484	15,029	150,006	37,778	1,971	139,063	69,176	\$567,507
FY 2023	106,827	55,821	187,621	45,608	964	161,338	88,825	647,004
FY 2024	66,090	22,047	155,503	45,047	699	216,669	162,579	668,633
FY 2025	85,968	7,998	144,127	51,131	1,736	193,652	135,302	619,914
FY 2026	147,762	11,743	134,922	37,683	1,189	237,784	164,842	735,924
FY 2027	165,363	23,506	120,645	57,975	1,621	247,881	205,919	822,911
FY 2028	214,664	12,922	130,675	48,912	2,712	191,334	181,967	783,185
FY 2029	143,867	4,455	140,653	27,111	-	188,048	165,022	669,155
FY 2030	39,054	2,680	68,989	40,732	-	176,511	168,563	496,528
FY 2031	-	<u>2,516</u>	<u>68,037</u>	<u>19,560</u>	-	<u>124,905</u>	<u>194,121</u>	<u>409,139</u>
Total	\$1,124,077	\$158,715	\$1,301,178	\$411,536	\$10,891	\$1,877,185	\$1,536,316	\$6,419,899
% of Total	17.5%	2.5%	20.3%	6.4%	0.2%	29.2%	23.9%	

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.

Source: Authority records.

Since its creation in 1996 through September 30, 2021, the Authority has expended approximately \$7.6 billion, on a cash disbursement basis, for capital improvement projects, including \$2.7 billion for projects at Blue Plains, \$1.1 billion for Water System infrastructure projects, \$2.5 billion for the DC Clean Rivers Project and combined sewer projects, \$474 million for sanitary sewer projects, \$49 million for stormwater projects, \$106 million for non-process facilities, \$113 million for meter replacement/Automated Meter Reading ("AMR") projects, \$304 million for capital equipment, and \$327 million for projects at the Aqueduct.

The Authority estimates the cost of the Fiscal Year 2022 - 2031 CIP at \$6.42 billion on a cash disbursement basis, including approximately \$1.21 billion for wastewater treatment projects at Blue Plains, \$1.22 billion for the DC Clean Rivers Project and combined sewer projects (Combined Sewer LTCP), \$1.83 billion for Water System infrastructure projects, \$1.36 billion for sanitary sewer projects, \$65.2 million for stormwater projects, \$102.2 million for non-process facilities, \$344.3 million for capital equipment, \$253.8 million for Washington Aqueduct Division projects and \$31.0 million for meter replacement/AMR projects. [update: The Board approved the CIP on **January 6, 2022.**]

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

**Table 5. Fiscal Year 2021-2031 Capital Improvement Program
Sources and Uses of Capital Funds
Fiscal Years ended/ending September 30
(\$ in thousands)^{1,2}**

	Actual(s) ³	Projected										Total (FY22-FY30)
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
BEGINNING BALANCE	<u>\$266,205</u>	<u>\$151,031</u>	<u>\$281,405</u>	<u>\$130,954</u>	<u>\$135,418</u>	<u>\$172,196</u>	<u>\$141,501</u>	<u>\$117,153</u>	<u>\$127,697</u>	<u>\$116,730</u>	<u>\$155,761</u>	<u>\$1,529,846</u>
SOURCES OF FUNDS:												
Proceeds from Rev. Bonds	\$ -	\$400,000	\$164,519	\$297,958	\$239,112	\$240,130	\$313,136	\$359,667	\$230,708	\$100,000	\$100,000	\$2,445,230
Proceeds from WIFIA Loan	\$ -	30,000	30,000	30,000	30,000	30,000	-	-	-	-	-	150,000
Environmental Impact Bond Proceeds	\$ -	\$(25,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$(25,000)
Curing Pad and Solar	\$ -	\$ -	1,165	2,338	3,762	3,949	4,033	5,336	3,501	3,501	3,458	31,044
System Availability Fee (SAF)	5,403	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	77,000
Transfer from Operations (CRIAC)	49,158	52,095	52,514	63,348	64,566	69,355	74,915	77,968	86,665	90,424	91,232	723,083
Transfer from Operations (Pay-Go)	\$90,014	104,659	114,315	111,580	126,228	147,996	162,641	172,177	191,517	223,202	254,019	1,608,335
Federal Grants - Infrastructure Funding	-	8,855	37,594	44,828	46,796	47,530	44,183	15,961	15,923	21	-	261,689
EPA Grants /FEMA Grants/DC	30,568	42,161	27,101	30,280	27,280	13,853	13,853	13,853	13,853	13,853	13,853	209,942
CSO Grants	8,002	-	-	-	-	-	-	-	-	-	-	-
Wholesale Customer Capital Contributions	70,648	86,872	90,690	114,647	110,052	143,217	175,947	138,370	106,588	96,107	94,955	1,157,445
Interest Income	<u>1,151</u>	<u>2,263</u>	<u>3,304</u>	<u>3,849</u>	<u>1,196</u>	<u>1,501</u>	<u>2,153</u>	<u>2,698</u>	<u>1,730</u>	<u>750</u>	<u>750</u>	<u>20,554</u>
Total Sources	<u>\$254,946</u>	<u>\$709,966</u>	<u>\$528,902</u>	<u>\$706,529</u>	<u>\$656,692</u>	<u>\$705,230</u>	<u>\$798,560</u>	<u>\$793,730</u>	<u>\$658,186</u>	<u>\$535,559</u>	<u>\$565,967</u>	<u>\$6,659,322</u>
USES OF FUNDS:												
Water Projects	\$55,800	\$165,313	\$227,116	\$218,339	\$194,451	\$192,665	\$192,324	\$124,683	\$120,842	\$1,829,431		\$1,193,339
Blue Plains Projects	72,007	85,979	78,574	117,545	116,402	132,436	165,309	129,249	121,373	126,711	141,086	1,214,664
Sanitary Sewer Projects	28,204	68,086	103,383	150,827	130,968	160,400	205,946	183,825	149,255	129,368	80,070	1,362,128
Combined Sewer	1,159	4,919	10,929	11,240	19,218	14,179	6,396	5,459	9,306	12,350	6,306	100,302
Combined Sewer LTCP	160,358	147,347	106,774	66,064	85,968	147,762	165,363	214,664	143,867	39,054	-	1,116,863
Stormwater Projects	1,831	7,029	11,526	5,553	5,813	4,986	6,157	4,620	4,498	6,329	8,722	65,233
Non Process Facilities	21,508	31,439	12,052	28,160	14,422	6,620	3,351	1,778	387	2,000	2,000	102,209
Washington Aqueduct Division Projects	9,588	16,875	59,628	34,749	17,164	27,825	37,122	14,723	11,940	19,831	13,911	253,768
Capital Equipment	19,571	37,440	33,921	33,056	32,207	36,571	38,713	33,103	33,103	33,103	33,104	344,321
Meter Replacement / AMR / CIS / ERP	<u>14</u>	<u>3,079</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>3,100</u>	<u>30,979</u>
Total Uses	<u>\$370,120</u>	<u>\$567,506</u>	<u>\$647,003</u>	<u>\$668,633</u>	<u>\$619,914</u>	<u>\$735,925</u>	<u>\$822,908</u>	<u>\$783,186</u>	<u>\$669,153</u>	<u>\$496,529</u>	<u>\$409,141</u>	<u>\$6,419,898</u>
Sources Minus Uses	(115,174)	142,460	(118,101)	37,896	36,778	(30,695)	(24,348)	10,544	(10,967)	39,030	156,826	239,424
Capital Contingency Reserve for LTCP	23,563	12,086	32,350	33,432	30,000	30,000	30,000	30,000	30,000	30,000	30,000	311,431
Use of Capital Contingency Reserve for LTCP	-	(12,086)	(32,350)	(33,432)	-	-	-	-	-	-	-	(77,868)
Sources Minus Uses Net of Reserves	(138,738)	<u>130,374</u>	(150,451)	<u>4,464</u>	<u>6,778</u>	(60,695)	(54,348)	(19,456)	(40,967)	<u>9,030</u>	<u>126,826</u>	<u>161,556</u>
Ending Balance	<u>\$151,031</u>	<u>\$281,405</u>	<u>\$130,954</u>	<u>\$135,418</u>	<u>172,196</u>	<u>\$141,501</u>	<u>\$117,153</u>	<u>\$126,697</u>	<u>\$116,730</u>	<u>\$155,761</u>	<u>312,587</u>	<u>\$1,691,402</u>

¹ Totals may not add due to rounding.

² The Authority sets aside capital cash on hand from the above sources to serve as a contingency for the Clean Rivers Project. The Ending Balance shown above in each year is inclusive of these funds; in FY 2022 through FY 2024, funds are anticipated to be drawn down before being replenished in FY 2025.

³ Preliminary results, unaudited.

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 \$1.83 billion 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, such as fire hydrants, valves and service connections) DDOT-related water main projects, and significantly enhanced funding for the lead service line replacement program for the water distribution system. 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 that was completed in 2018; (vii) an upgrade of one of the influent pumping facilities, which was 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 \$1.21 billion, which includes approximately \$901 million in disbursements for liquid, plant-wide and solids processing projects such as major improvements to filtration and pumping facilities, and \$78 million for the ENRF program projects such as the Tunnel Dewatering Pump Station and Enhanced Clarification Facility.

Sanitary Sewer Projects. The CIP includes approximately \$1.36 billion 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 \$1.22 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

stormwater 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 stormwater runoff before it enters the sewer system. Examples of green infrastructure technologies include rain gardens, porous pavements, bioswales, 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 2021) of \$2.8 billion.

Stormwater Projects. The projected disbursements for the stormwater service area in the CIP are approximately \$65 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 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 \$102 million in projected disbursements for facility land use projects. In fiscal year 2019, the Authority completed its Administrative Headquarters Building at the Main & O Street Campus and relocated over 300 employees into the new LEED Platinum facility.

Washington Aqueduct Projects. The 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. The CIP includes approximately \$254 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 \$344 million for major information technology projects, vehicle fleet upgrades, and large equipment projects at Blue Plains and the major water and sewer pumping stations.

Meter Replacement Projects. The CIP includes approximately \$31 million for ongoing meter replacements and continued automated meter reading system improvements and upgrades to the AMR equipment. These improvements are 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.

CIP Financing Sources

The Authority expects to finance the CIP from multiple sources including (i) revenue bonds, (ii) income from certain fees and charges, pay-as-you-go funds and interest income (all of which constitute Revenues under the Indenture), as well as (iii) federal and other grants and wholesale customer contributions (which are excluded from the definition of Revenues under the Indenture). The CIP financing sources are summarized below.

Revenue Bonds/Commercial Paper Notes. The Authority expects to finance approximately \$2.57 billion, or 38.6%, of the sources of funds 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 [January 1, 2022], approximately \$28.8 million of the Series B CP Notes and \$29.2 million of the Series C CP Notes were outstanding. 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.

WIFIA Loan. DC Water has secured a long-term, low interest loan (the "WIFIA Loan") for up to \$154 million for infrastructure repair, rehabilitation and replacement pursuant to the Water Infrastructure Finance and

Innovation Act of 2014 (“WIFIA”), a federal credit program administered by United States Environmental Protection Agency (“USEPA”). The interest rate on the WIFIA Loan is 1.87%; principal payments are assumed to begin in Fiscal Year 2028 and the final repayment is in Fiscal Year 2060. The Authority currently expects to finance \$150 million of the CIP, or 2.3%, from the proceeds of the WIFIA Loan.

Solar Energy and Curing Pad. Solar power is being generated at DC Water facilities through the installation of photovoltaic solar panels for purposes of green energy and solar renewable energy credits (SREC’s). DC Water will receive revenue from the sale of SREC’s to power companies so those companies can meet their renewable energy obligations. A much smaller portion of the value of the initiative is the energy savings. For example, the Blue Plains Phase I solar project began generating power in June of 2021. Based on current generation, the estimated savings are \$440,000/year.

The Curing Pad is a building that DC Water can use to produce and store a high value Bloom product, cured Bloom, that has a high demand and commands a very high price compared with uncured Bloom. This facility will generate revenue from the increased volume of sale of this higher value product. The Authority currently expects to finance \$31 million, or 0.5%, of the sources of funds with revenues or net savings generated by Solar Energy and the Curing Pad.

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 finance \$77 million, or 1.16%, of the sources of funds with revenues generated by the SAF.

Clean Rivers Impervious Area Charge. The Authority currently expects to finance about \$723 million, or 10.86%, of the sources of funds with revenues received from the Clean Rivers Impervious Area Charge (“CRIAC”), which was first implemented in Fiscal Year 2009 to recover the costs of the DC Clean Rivers Project. 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 \$1.61 billion, or 24.15%, of the sources of funds 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.

Interest Income on Bond Proceeds. The Authority estimates that \$21 million in interest income, or 0.31%, 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.

Federal and Other Grants. The Authority expects to finance approximately \$472 million, or 7.08%, of the sources of funds 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. In fiscal years 2019 through 2021, the Authority received \$8.0 million in grant funding for the DC Clean Rivers Project, and in Fiscal Years 2016 through 2018, the Authority received an average of \$14 million each year for such funding. The Authority also expects to be reimbursed by the District for certain capital investments. Federal and other grants do not constitute Revenues under the Indenture.

Wholesale Customer Contributions. The Authority expects to finance approximately \$1.16 billion, or 17.38%, of the sources of funds 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. Wholesale customer contributions do not constitute Revenues under the Indenture.

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 2014 through Fiscal Year 2018 was \$50,872,045, or 5.7% of the total original value of the contracts of \$897,320,435 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, 2021, the System had 126,401 active, metered water and wastewater accounts (30 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, 2021 is set forth in Table 6.

Table 6. Customer Categories and Accounts

<u>Customer Category</u>	<u>Number of Accounts</u>	<u>% of Total Operating Revenue</u>
Residential, Multifamily, Commercial	124,353	62%
Governmental (Federal, District and D.C. Housing Authority) ¹	2,041	18
Wholesale	7	17
Total	126,401	97% 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 3% 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 2021, the residential, commercial and multifamily customer revenue represented approximately 56% 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 the last five fiscal years. In Fiscal Year 2021, the ten largest commercial customer accounts represented 2.90% of total operating revenues.

Table 7. Ten Largest Commercial Customers

	2021	2020	2019	2018	2017
Howard University	\$3,065,479	\$3,710,923	\$3,898,131	\$3,879,664	\$3,957,007
American University	2,904,844	987,647	1,005,881	1,004,977	750,235
William C Smith & Co	2,767,263	2,496,772	2,441,968	2,078,614	2,226,722
Washington Hospital Center	2,728,267	2,455,804	2,078,916	2,003,551	1,624,588
Georgetown University	2,434,834	1,958,462	1,875,409	2,118,763	1,438,247
George Washington University	2,285,071	3,268,007	2,998,442	2,522,689	2,477,970
Horning Brothers	2,276,290	2,076,006	1,697,812	-	-
Children's Hospital	1,451,942	1,279,259	-	831,854	-
Gallaudet University	1,278,783	-	-	-	-
Medstar-Georgetown Medical Center	1,166,894	1,031,263	-	850,673	807,540
Cafritz	-	1,092,288	-	-	-
Amtrak	-	-	1,924,967	1,046,179	983,224
Catholic University	-	-	1,174,396	-	-
Georgetown University Hospital	-	-	1,010,696	-	808,884
Metropolitan Washington Airports Authority	-	-	-	1,280,248	1,068,877
Total	\$22,359,669	\$20,356,430	\$20,106,617	\$17,617,212	\$16,143,294
% of Total Operating Revenues	2.90%	2.64%	2.85%	2.57%	2.51%

Source: DC Water Department of Customer Service

Table 8 reflects the Authority's ten largest government customers in last five fiscal years. In fiscal year 2021, the ten largest government customers represented 7.77% of total operating revenues.

Table 8. Ten Largest Government Customers

	2021	2020	2019	2018	2017
Bolling Air Force Base	12,567,892	4,798,312	4,279,384	4,187,710	3,115,393
D.C. Housing Authority	\$11,345,071	\$9,921,080	\$9,203,222	\$5,176,951	\$7,492,820
U.S. General Services Administration	10,816,058	9,536,411	7,870,446	8,096,034	7,092,342
Federal Naval Research Lab	4,707,425	3,553,343	2,779,271	2,209,408	1,853,214
Smithsonian Institution	4,146,701	6,138,774	4,967,305	4,683,524	3,635,763
Department Defense VA	4,018,325	4,003,435	2,834,531	2,082,125	-
D.C. Board of Education	3,876,997	2,908,559	1,866,303	1,569,405	2,497,561
U.S. Congress	3,391,970	6,157,111	5,447,393	5,061,870	4,597,331
National Park Service	2,839,593	2,707,685	2,342,203	3,298,927	4,621,035
D.C. Recreation and Parks	2,159,393	-	-	-	1,604,350
Department of the Navy	-	1,894,810	1,951,907	1,732,073	1,662,225
Total	\$59,869,426	\$51,619,519	\$43,541,966	\$38,098,027	\$38,172,034
% of Total Operating Revenues	7.77%	6.70%	6.17%	5.57%	5.93%

Source: DC Water Department of Customer Service

Customer Demand

Table 9 shows the average percentage of annual water consumption by customer category from Fiscal Year 2017 through Fiscal Year 2021. The results illustrate the diversification of the Authority's customer base.

Table 9. Average Annual Consumption By Customer Category
Fiscal Years 2017 – 2021
(millions of Ccf)

Customer	Average Annual Consumption	% of Total Consumption
Residential Single-Family	6.89	20.7%
Commercial	11.16	33.6
Residential Multi-Family	8.87	26.7
D. C. Municipal Government	1.02	3.1
Federal Government	4.47	13.5
D. C. Housing Authority	0.80	2.4
Total Consumption	33.21	100.0%

Source: Authority Records. Totals may not add due to rounding.

Table 10 shows projected annual consumption for the Authority's customer categories for Fiscal Years 2022 through 2026. 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)

	2022	2023	2024	2025	2026
Residential Single-Family	6.55	6.49	6.42	6.36	6.30
Commercial ³	9.01	8.92	8.83	8.74	8.65
Residential Multi-Family	9.17	9.08	8.99	8.90	8.81
D. C. Municipal Government ⁴	1.18	1.17	1.16	1.15	1.14
Federal Government	4.77	4.72	4.67	4.62	4.58
D.C. Housing Authority	0.80	0.79	0.78	0.78	0.77
Total Consumption	31.48	32.69	30.85	30.54	30.24

¹ Totals may not add due to rounding.

² Total water consumption in Fiscal Years 2022 - 2026 reflects the assumption of a 1% annual decline.

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

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

Source: Amawalk

Some fluctuation in consumption can occur in a given year due to variations in weather conditions and other factors such as billing adjustments. In Fiscal Years 2018 and 2019, total consumption decreased by 0.9% and 1.8%, respectively, versus the prior year. Consumption in Fiscal Years 2020 and 2021 was impacted by the pandemic, with significant decreases in non-residential customer usage compared to previous years. Total consumption in Fiscal Years 2020 and 2021 was 32.432 million Ccf and 31.796 million Ccf, respectively, representing declines from prior years of 3.0% and 2.0%. See “– Rate-Setting Authority” for additional information.

The Authority anticipates that consumption will total 31.48 million Ccf in Fiscal Year 2022, representing a decrease of 3.2% from the prior year. The Authority assumes that long-term total water consumption will decline at the rate of ___% per year beginning in Fiscal Year 2020, 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) was 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 wastewater revenues within the District are estimated to comprise about 61% of total revenues (excluding the PILOT/ROW Fee) in Fiscal Years 2022 through 2026. The Authority evaluates its water consumption projections annually in connection with its budget preparations and more frequently if the need arises.

Rate-Setting Authority

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 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.

Retail Rates, Fees and Charges

The Authority adopted several changes to its retail rate structure that 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 retail rates, fees and charges, see "-- Components of Retail Rates and Charges" and "-- Historical and Projected Retail Rates" below.

Prior to Fiscal Year 2017, the Authority adopted its budgets and its retail rates and charges on an annual basis. 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) and in calendar year 2020 the Board adopted (i) rates and charges to be effective October 1, 2020 (Fiscal Year 2021) and (ii) rates and charges to be effective October 1, 2021 (Fiscal Year 2022). The benefits of the multi-year rate setting include: greater revenue certainty, increased budget discipline, and better alignment between revenues and expenditures. The retail rates and charges are expected to change each year. See "-- Historical and Projected Retail Rates" and "THE AUTHORITY – Authority's Relationship to the District." If the Authority determines that revenues are materially less than expected 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.

In calendar year 2019, the Authority modified the adopted wastewater rate and the CRIAC: the wastewater rate for Fiscal Year 2020 increased from the adopted rate and the CRIAC decreased from the adopted rate, with the resulting revenues being relatively unchanged. Further adjustments in the recovery of costs through the wastewater rate and the CRIAC are reflected in the actual and projected rates after Fiscal Year 2020.

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 7.6% of the Authority's total annual revenues during Fiscal Year 2022 through Fiscal Year 2026 (excluding the PILOT/ROW Fee and net of reconciliations of Federal billings).

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:

- iii. A previous executive order 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.
- iv. 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.
- v. There have been significant adjustments made to federal bills as a result of property sales and transfers between the federal and District governments.
- vi. 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 10.8% of the Authority’s total annual revenues during Fiscal Year 2022 through Fiscal Year 2026 (excluding the PILOT/ROW Fee).

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

The primary retail rates and fees include water and wastewater charges, the clean rivers impervious area charge, the PILOT/ROW Fee and the stormwater fee.

Water and Wastewater Charges

Water and Wastewater Consumption Rates. Water and wastewater consumption 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. In Fiscal Year 2015, 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 a cost of service study (the “2015 COS Study”). Based on the findings of the 2015 COS Study, the Authority’s management recommended a restructuring of the rates, charges and fees to the Board to include water rate classes for Residential, Multi-Family and Non-Residential customers. Wastewater rates remain uniform for all customers. The Board adopted this new rate structure for Fiscal Year 2016, effective October 1, 2015.

The Authority undertakes a cost of service study every three years to ensure that its rates are appropriately capturing actual expenditures. The cost of service study prepared by RFC in 2018 (the “2018 COS Study”) recommended no changes to the water rate structure and classes in Fiscal Year 2019, but did recommend decreases in water rates, an increase to the wastewater rate and a reduction in the CRIAC to better align rates and revenues with the cost of providing services. Subsequent analyses have resulted in further adjustments to the costs recovered through wastewater rates and the CRIAC. Table 12 presents historical rates and charges.

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 was increased in Fiscal Year 2021 and in Fiscal Year 2022; it is assumed to remain unchanged in Fiscal Years 2023 through 2026, providing \$24.1 million in revenue per year each year.

Water System Replacement Fee. The Authority implemented the meter-based Water System Replacement Fee in Fiscal Year 2016 in order to recover the cost of the renewal and replacement program for water infrastructure. The Water System Replacement Fee is assumed to remain unchanged in Fiscal Years 2023 through 2026; generating \$39.7 million in revenue per year.

Clean Rivers Impervious Area Charge

Overview. 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 \$2.8 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, 2021 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, 2021)
Tier 1	100 – 600	0.6	18,693
Tier 2	700 – 2,000	1.0	81,174
Tier 3	2,100 – 3,000	2.4	6,251
Tier 4	3,100 – 7,000	3.8	2,793
Tier 5	7,100 – 11,000	8.6	141
Tier 6	11,100 and more	13.5	68

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.

CRIAC rates in Fiscal Year 2020 were lower than in the prior year and wastewater rates were higher due to both: a) increases in the cost of service, and b) an allocation of a portion of the costs of the LTCP to wastewater charges in lieu of the CRIAC. The allocation of a portion of LTCP costs to wastewater charges is based on an analysis prepared by the Authority which estimates that sanitary sewage comprises 37% of combined wastewater and stormwater. The Authority decided to allocate a portion of the LTCP costs to wastewater charges in three stages, beginning with an 18% allocation in Fiscal Year 2020, followed by 28% and 37% allocations in Fiscal Years 2021 and 2022, respectively. Allocated LTCP costs in Fiscal Year 2023 are expected to remain at the 37% level. Amawalk reviewed the Authority’s analysis and found it to be reasonable and consistent with industry practice. As a result of the changes in LTCP cost allocation, the CRIAC rate in Fiscal Year 2020 was \$20.94 per ERU, a decrease of 9.0% from the prior year. In Fiscal Years 2021 and 2022, with an increasing share of LTCP costs being assigned to the

wastewater rate instead of the CRIAC, the CRIAC rates are \$19.52 and \$18.40 per ERU, respectively. In Fiscal Year 2023, the projected CRIAC rate is \$18.14 per ERU.

CRIAC Incentive Program. 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 wastewater 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. Effective October 1, 2019 (Fiscal Year 2020), the Authority strengthened the CRIAC Incentive Program to provide a 20% maximum incentive credit. The actual credit amount is calculated based upon a formula provided by the DOEE.

CRIAC 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. The Board adopted the expansion of the CAP for eligible single-family residential accounts and individually metered accounts to include a fifty percent (50%) or seventy-five percent (75%) credit of the monthly billed CRIAC depending on whether the customer qualifies under CAP, CAP2 or CAP3. Non-profit organizations may qualify for a credit of up to 90% of the CRIAC portion of the water bill. The CRIAC credit was first implemented in Fiscal Year 2017. See “– Customer Assistance Programs” below.

PILOT/Right of Way Occupancy Fee

These fees recover the cost of the PILOT and Right of Way fees (collectively, the “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, 2021 (i.e., for Fiscal Year 2022), the Authority’s PILOT/ROW Fee is \$0.75 per Ccf. The PILOT/ROW Fee is expected to increase gradually each year through Fiscal Year 2026.

Stormwater Fee

The Authority’s retail water and wastewater bills also include a stormwater fee levied on behalf of the District government, which the Authority transfers to DOEE on a pass-through basis. The stormwater fee is charged as a separate line item on retail customer bills. 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 – Authority’s Relationship to the District.” The stormwater fee charged to retail customers is \$2.67 per ERU, which rate has been in effect since October 1, 2016. [The stormwater fee is expected to remain the same for Fiscal Years 2023 through 2026.]

Although the Authority no longer administers the program, pursuant to the July 25, 2008 MOU with DOEE, the Authority retains a portion of the stormwater fee revenues to cover its share of District stormwater expenditures. See “THE AUTHORITY – Authority’s Relationship to the District – *Memoranda of Understanding*” and “FINANCIAL OPERATIONS – System Revenues – *Stormwater Revenues*.” The stormwater fees that are transferred to the District do not constitute Revenues under the Indenture, however, the stormwater fee revenues that are retained by the Authority to cover its share of stormwater expenditures are considered non-operating revenues of the Authority and do constitute Revenues under the Indenture.

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.

Table 12 sets forth historical water and wastewater rates and the CRIAC of the Authority. Table 13 sets forth the adopted and projected water consumption and wastewater usage rates as well as the CRIAC of the Authority

for Fiscal Years 2022 through 2026. Revenue resulting from the CRIAC will recover the majority of the cost of the LTCP for the period of Fiscal Year 2022 through Fiscal Year 2026.

Federal government customers in Virginia pay the Arlington County retail rate, which is currently [confirm: \$3.67 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 Wastewater, Other Charges are \$ Per Unit as Noted)

Fiscal Year	Water Consumption Rate	Wastewater Usage Rate	Combined Rate	Water and Wastewater Percent Increase	CRIAC Rate (Per ERU)	Meter Charge (Per 5/8" Meter)³	Water System Replacement Fee (Per 5/8" Meter)³
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				
2018 ²							
Residential – 0-4 Ccf	3.39	6.00	9.39	5.0%	25.18	3.86	6.30
Residential - >4 Ccf	4.26	6.00	10.26				
Multi-Family	3.80	6.00	9.80				
Non-Residential	4.40	6.00	10.40				
2019 ²							
Residential – 0-4 Ccf	2.91	7.75	10.66	13.5%	23.00	3.86	6.30
Residential - >4 Ccf	3.90	7.75	11.65				
Multi-Family	3.37	7.75	11.12				
Non-Residential	4.05	7.75	11.8				
2020 ²							
Residential – 0-4 Ccf	3.06	8.89	11.95	5.4%	20.94	3.86	6.30
Residential - >4 Ccf	4.10	8.89	12.99				
Multi-Family	3.54	8.89	12.43				
Non-Residential	4.25	8.89	13.14				
2021 ²							
Residential – 0-4 Ccf	3.49	9.77	13.26	6.6%	19.52	4.96	6.30
Residential - >4 Ccf	4.50	9.77	14.27				
Multi-Family	3.96	9.77	13.73				
Non-Residential	4.65	9.77	14.42				

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 Wastewater, Other Charges are \$ Per Unit as Noted)

	Units	Current	Projected ²	
		2022	2023	2024
Water Rates				
Residential - 0-4 Ccf	Ccf	3.63	3.94	4.24
Residential - >4 Ccf	Ccf	4.74	5.14	5.53
Multi-Family	Ccf	4.15	3.54	3.81
Non-Residential	Ccf	4.91	4.25	4.57
Sewer Rates	Ccf	10.64	11.54	12.41
Water & Sewer % Change ³	%	6.7%	8.5%	7.5%
CRIAC	ERU	18.40	19.58	24.07
Meter Charge ⁶	5/8" Meter	7.75	7.75	7.75
Water System Replacement Fee ⁴	5/8" Meter	6.30	6.30	6.30

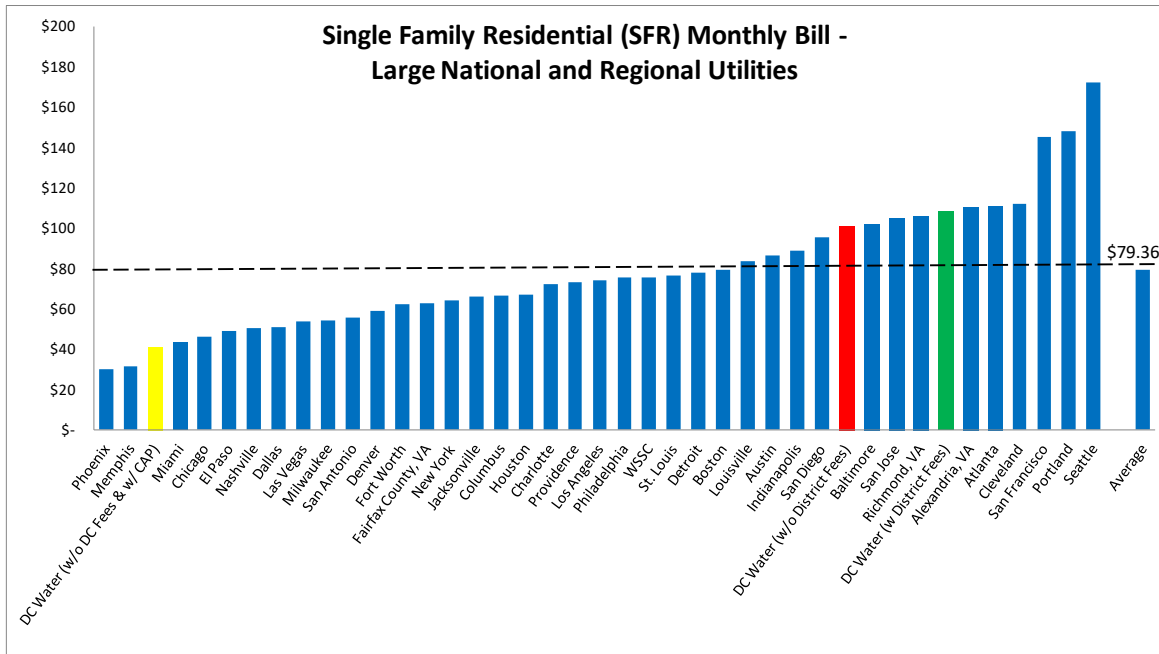
¹ Rates and charges are billed monthly.² Rates for Fiscal Years 2023 and 2024 are projected and subject to change.³ Percent increase reflects the overall average increase for all customers; the increases for individual customers vary by customer class and consumption.⁴ The Meter Charge and the Water 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.

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 2022 rate and fee charges; rates for other utilities are as of December 1, 2021. The Authority's Fiscal Year 2022 rate and fee charges are shown both with and without the pass-through of the District's PILOT/ROW Fee in the amount of \$0.75 per Ccf, and the DOEE residential stormwater rate of \$2.67 per ERU per month.

The Authority offers assistance to qualifying low income ratepayers through its Customer Assistance Program (CAP). Table 14 also illustrates the monthly bill for a CAP customer with average Single Family Residential characteristics.

[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.

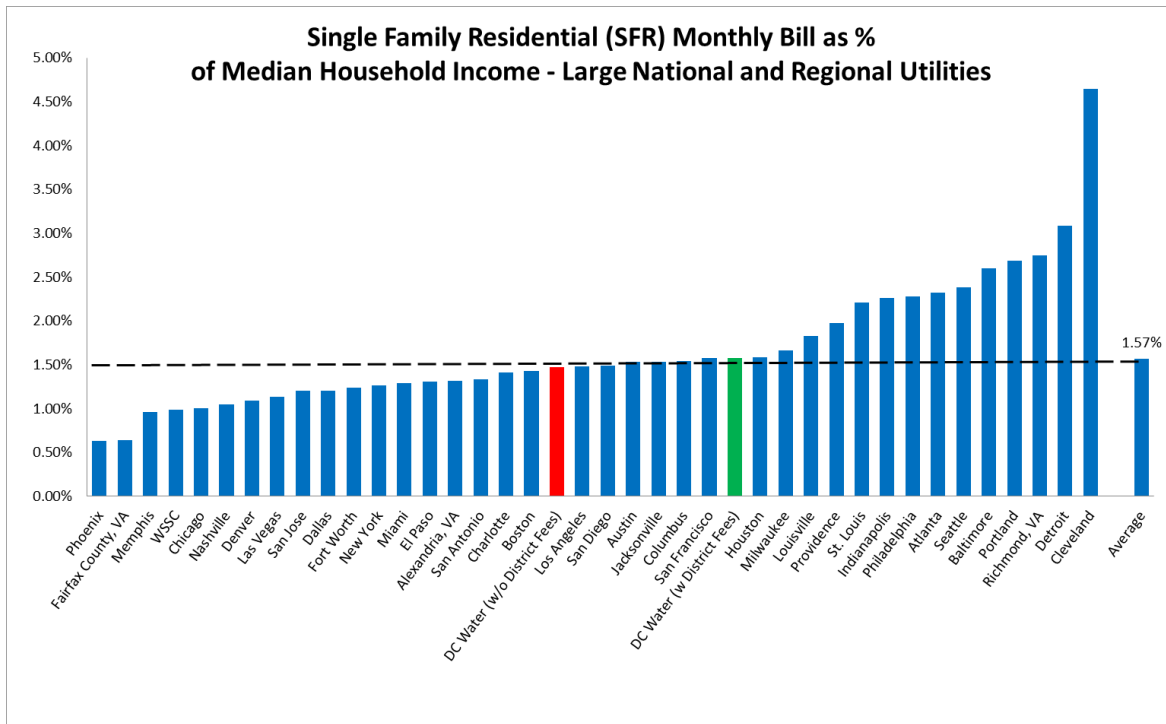
² User charges are based upon information provided by the identified cities and standardized assumptions regarding water consumption, wastewater discharge, stormwater drainage area and other factors. Actual charges in each city will vary in accordance with local usage patterns. There may be significant 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. Wastewater 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/wastewater services. Water/wastewater 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 [Update] Charges for all cities reflect rate schedules in effect on July 1, 2019.

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 Reflects rates and fee in place as of July 1, 2019. [Update]

Source: Amawalk

Collections

For information regarding the COVID-19 pandemic’s impact on collections see “COVID-19 IMPACT, RESPONSE AND RISK FACTORS – Financial Impact – 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 the AMR system, 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. The Authority typically maintains a 90-day receivable balance of less than 2.0% of Operating Reserves. 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 enhanced coordination efforts with other District agencies.

In the absence of pandemic conditions, the Authority’s collection program includes: (i) assessing customers a 10% late fee if their bill is not paid by 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 delinquent 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 AMR system 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. [Update: There is one government delinquency to report, which is related to DC Government/Municipal property.] It is noted that collection efforts were suspended in October 2017 in preparation for the implementation of the new Customer Information System. Collection efforts resumed in July 2018.

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

<u>As of September 30,</u>	<u>Amount¹</u>	<u>Percent of Operating Revenue</u>
2017	8.4	1.4
2018	13.4	2.1
2019	10.6	1.5
2020	17.9	2.5
2021	26.3	3.7

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, and has sought payment for these services and fees since 2010. The parties were unable to resolve this matter over the years, and in January 2018, the Authority filed a lawsuit against the Soldier’s Home to recover payments for sewer service charges from 2010 to present. [Update] The amount of unpaid charges sought is \$13.7 million. Other than the free water service provided to the Soldier’s Home, there are no other exempt accounts, nor does the Authority 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 and Serving People by Lending A Supporting Hand (“S.P.L.A.S.H.”).

Customer Assistance Program. 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 water and sewer services
2011	Provide a discount of the first 4 Ccf of PILOT/ROW Fee
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)
2018	Provide a discount of 3 Ccf per month of water and sewer services (excluding PILOT/ROW) for expanded income guidelines
2018	Provide a 50% credit on the billed Clean Rivers Impervious Area Charge (CRIAC) for expanded income guidelines
2018	Provide a 75% credit on the billed Clean Rivers Impervious Area Charge (CRIAC) for eligible customers under expanded income guidelines (excludes water and sewer services credits)
2018	Provide up to 90% credit on the billed Clean Rivers Impervious Area Charge (CRIAC) for eligible non-profit organizations
2019	Enacted CAP II and CAP III program for customers not eligible for the CAP program
2020	Enacted Emergency Residential Relief Program for residential customers who have delinquent bills during the pandemic. In Fiscal Year 2020, the Authority's Board adopted an increase in the CAP program maximum credit from 50% to 75%, effective October 1, 2020.
2021	Enacted Multi-Family Assistance program to assist tenants during the pandemic.

Table 17A sets forth the number of customers assisted and the total discount provided through the CAP discount since Fiscal Year 2017. [Update description of income based discount programs:] The projected revenues of the Authority take into consideration the discounts provided to low-income customers under the CAP. As of Fiscal Year 2019, the Authority enacted an expanded program (CAP II) for low-income residential customers who do not qualify for CAP with a household income up to 80% of the Area Median Income (AMI). Eligible customers receive a discount of up to 3 Ccf per month for water and sewer services and a 50% discount for the CRIAC. Additionally, a new District-funded program (CAP III) will provide benefits to DC Water customers with household income greater than 80% and up to 100% Area Median Income (AMI) who do not qualify for CAP or CAP II. An eligible customer under CAP III receives a 75% discount for the CRIAC.

Table 17A. Customer Assistance Program Discount

<u>Fiscal Year</u>	<u>Customers Assisted</u>	<u>Water/Wastewater PILOT/ROW (\$)</u>	<u>WSRF Discount (\$)¹</u>	<u>CRIAC Credit (\$)¹</u>	<u>Total Amount</u>
2017	4,244	810,295	195,328	129,674	1,135,297
2018	4,324	737,199	176,403	274,972	1,188,574
2019	4,436	841,325	180,277	269,196	1,290,797
2020	4,818	1,101,041	206,852	276,915	1,584,808
2021	5,630	1,603,620	272,823	501,884	2,378,326

¹ The CAP data for 2017 reflect partial-year benefits for the WSRF discount and CRIAC credit, 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.

Table 17B sets for the number of customers assisted and the total discount provided through the CAP II and CAP III discount Fiscal Year 2019 to Fiscal Year 2021. The District also funded the CRIAC Nonprofit Relief Program, which is designed to provide CRIAC credits to nonprofit organizations as determined by the District Department of the Environment. An eligible customer under the Nonprofit Relief Program receives up to a 90% discount for CRIAC.

Table 17B. Customer Assistance Program II and III Discount

Fiscal Year	Customers Assisted	Water/Wastewater PILOT/ROW (\$)	WSRF Discount (\$)	CRIAC Credit (\$)	Total Amount
2019 – CAP II	191	33,344	-	14,147	47,490
2019 – CAP III	48	-	-	9,436	9,436
2020 – CAP II	681	127,319	-	46,517	173,837
2020 – CAP III	133	-	-	25,863	25,863
2021 – CAP II	835	172,555	-	73,082	245,637
2021 – CAP III	191	-	-	36,059	36,059

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 2017.

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

Fiscal Year	Participating Customers	S.P.L.A.S.H Value
2017	331	103,283
2018	212	104,361
2019	276	84,427
2020	133	74,323
2021	96	71,765

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 82.0% of total revenues, and wholesale customer payments for wastewater treatment services, which account for 10.8% of total revenues (excluding the PILOT/ROW Fee for Fiscal Years 2022 through 2026). 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.

Table 19 presents historical revenues, expenses and changes in net position using information contained in the audited financial statements for Fiscal Years 2017 through 2020 and preliminary, unaudited data for 2021. The Authority's complete financial statements for the Fiscal Years ended September 30, 2020, and 2019, are attached hereto as APPENDIX B.

Table 19. Historical Revenues, Expenses and Change in Net Position
(\$ in thousands)

	Fiscal Year Ended September 30				
	2017	2018	2019	2020	2021
Operating revenues					
Residential, commercial and multi-family customers	\$ 401,246	\$ 425,492	\$ 443,481	\$ 459,572	\$ 474,380
Federal government	67,672	73,551	73,393	80,122	86,422
District government and DC Housing Authority	40,483	42,710	45,816	46,781	50,020
Charges for wholesale wastewater treatment	101,619	121,961	114,766	117,166	127,410
Other	32,149	20,788	27,691	33,187	32,325
Total Operating Revenues	643,169	684,502	705,147	736,828	770,557
Operating expenses					
Personnel services	132,124	142,342	141,040	135,005	142,352
Contractual services	72,611	74,627	75,818	74,064	73,227
Chemicals, supplies and small equipment	33,381	31,152	36,579	30,602	35,411
Utilities and rent	24,262	26,163	25,813	24,708	27,331
Depreciation and amortization	97,900	115,453	127,501	135,590	138,074
Water purchases	26,796	28,357	32,430	31,696	33,135
Payment in lieu of taxes and right of way fee	21,057	21,376	21,702	22,034	22,372
Total operating expenses	408,131	439,470	460,883	453,699	471,902
Operating income	235,038	245,032	244,264	283,129	298,655
Nonoperating revenue (expenses)					
Interest income	3,740	5,866	9,307	8,846	2,760
Interest expense and fiscal charges	(68,293)	(93,956)	(104,630)	(91,724)	(155,672)
Total nonoperating revenue (expenses)	(64,553)	(88,090)	(95,323)	(82,878)	(152,912)
Change in net position before Federal grants and contributions	170,485	156,942	148,941	200,251	145,743
Contributions of capital from Federal government	24,066	30,419	16,313	22,727	42,093
Change in net position	194,551	187,361	165,254	222,978	187,836
Net position, beginning of year	1,703,289	1,897,840	2,085,201	2,250,455	\$2,473,433
Net position, end of year	\$1,897,840	\$2,085,201	2,250,455	\$2,473,433	\$2,661,269

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.

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

	Fiscal Year ended September 30				
	2017	2018	2019	2020	2021
Revenues:					
Retail	\$474,462	\$498,394	\$543,130	\$551,188	\$563,277
Wholesale	81,136	81,022	82,116	79,157	82,986
Other Non-Operating	61,419	51,756	69,191	79,752	63,305
(Contributions to/Transfers from Rate Stabilization Fund)	(10,000)	-	-	(28,794)	2,500
Total Revenues (A)	\$607,017	\$631,172	\$694,437	\$681,304	\$712,069
Operating Expenses (B)	292,812	298,761			
Revenues Less Operating Expenses (C=A-B)	\$314,205	\$332,411	\$694,437	\$681,304	\$712,069
Debt Service:					
Senior Debt Service (D)	\$51,945	\$67,296	\$75,282	\$72,202	\$74,349
Subordinate Debt Service (E)	109,263	111,104	117,753	126,854	129,793
Total Outstanding and Projected Debt Service (F=D+E)	\$161,208	\$178,400	\$193,035	\$199,056	\$204,143
Calculation of Net Revenues Available for Senior Debt Service:					
Revenues Less Operating Expenses (C)	\$314,205	\$332,411	\$694,437	\$681,304	\$712,069
Prior Year Federal Billing Reconciliation	(19,201)	(9,019)	(5,753)	1,317	2,233
(Refund to)/Payment from wholesale customers	(10,906)	8,987	(10,940)	14,925	2,313
(Additions to)/Transfers from DC PILOT Fund	-	-	-	-	-
Customer Rebate	-	-	-	-	-
Net Revenues Available for Senior Debt Service (G)	\$284,098	\$332,379	\$677,743	\$697,546	\$716,615
Senior Debt Service Coverage (G/D)	5.47x	4.94x	4.63x	5.24x	5.08x
Calculation of Subordinate Debt Service Coverage:					
Net Revenue Available for Senior Debt Service	\$284,098	\$332,379	\$677,743	\$697,546	\$716,615
Less Senior Debt Service (D)	(51,945)	(67,296)	(75,282)	(72,202)	(74,349)
Net Revenues Available for Subordinate Debt Service (G-D)	\$232,153	\$265,083	\$602,461	\$625,344	\$642,266
Subordinate Debt Service Coverage ((G-D)/E)	2.12x	2.39x	2.32x	2.41x	2.36x
Combined Debt Service Coverage (G/F)	1.76x	1.86x	1.81x	1.90x	1.86x

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 2022 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. 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 2021 and Fiscal Year 2022 Budgets

The Board adopted the Fiscal Year 2021 operating budget (the "Fiscal Year 2021 Budget") on March 5, 2020 and the Fiscal Year 2022 operating budget (the "Fiscal Year 2022 Budget") on April 1, 2021.

The Fiscal Year 2021 Budget for operating expenditures totals \$642.7 million, which is \$28.2 million or 4.6% higher than the Approved Fiscal Year 2020 Budget, primarily due to the increases in: debt service costs associated with the Authority's CIP, personnel services, contractual services and chemicals and supplies. The Fiscal Year 2022 Budget for operating expenditures totals \$658.4 million, which is \$15.7 million or 2.4% higher than the Approved Fiscal Year 2021 Budget, primarily due to increases in debt service costs associated with the Authority's CIP and an increase to the budgeted amount for cash-financed construction.

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. 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 (preliminary, unaudited) cash flows, cash reserves and debt service coverage for Fiscal Year 2021 and (ii) projected cash flows, cash reserves and debt service coverage for Fiscal Years 2022 through 2026. The projected revenues reflect the increases in rates and charges adopted by the Authority for Fiscal Year 2022 and the anticipated increases in rates and charges for Fiscal Years 2023 through 2026.

The projected financial results for Fiscal Years 2022 through 2026 incorporate assumptions as of the date of this Official Statement. The projected debt service requirements include anticipated debt service on the [Series 2022B/C/D Bonds and the Series 2022E Bonds]. Excluding the issuance of the [Series 2022B/C/D Bonds and the Series 2022E Bonds], the Authority anticipates issuing approximately \$955.8 million of new money bonds from Fiscal Year 2022 through and including Fiscal Year 2026. There are no deposits to the debt service reserve fund assumed for the [Series 2022B/C/D Bonds and the Series 2022E 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" in Appendix A.

[Table 21. Analysis of Actual and Projected Financial Results]
[footnotes to be updated]

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

	Actual		Projected			
	2021²	2022	2023	2024	2025	2026
Revenues and Payment Obligations						
Revenues						
Retail Revenues ¹	\$563,277	\$599,193	\$625,234	\$677,299	\$704,026	\$741,849
Wholesale Revenues	82,986	84,669	87,209	89,825	92,520	95,295
Other Non-Operating Revenues	60,805	62,023	64,495	68,251	71,549	76,777
Transfer from RSF	2,500	52,100	0	0	0	0
(Contributions to RSF)	0	2	4	6	8	10
Total Revenues	\$709,568	\$797,987	\$776,941	\$835,381	\$868,103	\$913,932
Prior Year Federal Billing Reconciliation	2,233	488	-3,761	-6,742	0	0
Projected Billing Refunds	0	0	0	0	0	0
(Refund to)/Payment from IMA	2,313	(5,400)	0	0	0	0
Transfer to CAP Fund	0	0	0	0	0	0
Curing Pad + ERP	0	0	0	0	0	0
Net Revenues (A)	714,115	793,074	773,180	828,639	868,103	913,932
Operating Expenses (B)	332,830	341,627	352,149	362,998	374,183	385,716
Net Revenues Available for Debt Service (C=A-B)	381,285	451,447	421,031	465,641	493,920	528,216
Total Senior Debt Service (D) ^{3,4,5}	75,085	76,947	82,445	72,113	72,793	81,798
Total Subordinate Debt Service (E) ^{3,4,5,6,7,8}	129,793	148,918	156,658	175,748	197,674	203,065
Total Outstanding & Projected Debt Service (F=D+E)	204,878	225,865	239,103	247,861	270,467	284,863
Debt Service Coverage						
Calculation of Net Revenues Available for Senior Debt Service						
Senior Debt Service Coverage (C/D)	5.08x	5.87x	5.11x	6.46x	6.79x	6.46x
Calculation of Subordinate Debt Service Coverage						
Net Revenue Available for Senior Debt Service (C)	381,285	451,447	421,031	465,641	493,920	528,216
Less Senior Debt Service (D)	(75,085)	(76,947)	(82,445)	(72,113)	(72,793)	(81,798)
Net Revenue Available for Subordinate Debt Service (C-D)	306,199	374,501	338,586	393,529	421,127	446,418
Subordinate Debt Service Coverage [(C-D)/E]	2.36x	2.51x	2.16x	2.24x	2.13x	2.20x
Combined Debt Service Coverage (C/F)	1.86x	2.00x	1.76x	1.88x	1.83x	1.85x
Subordinated Payment Obligations						
Payment In Lieu of Taxes/Right of Way Fee (G)	22,372	22,718	23,070	23,430	23,796	24,170
Defeasance/Cash Financed Capital Construction (H) ⁹	30,355	37,830	45,381	49,051	58,226	68,942
Revenues Less Disbursements (I=A-B-F-G-H)	123,678	165,035	113,477	145,300	141,431	150,241
Reserve Balances						
Beginning Cash Reserve Balance (J)	186,827	196,286	235,600	242,600	251,600	261,600
Cash Reserve Balance Breakdown						
Beginning Undesignated Reserve Balance	99,405	108,864	148,178	155,178	164,178	174,178
Additions to/(Transfers from) Undesignated Reserve						
Annual Balance from Operations	119,132	169,945	117,234	152,036	141,423	150,231
Prior Year Federal Billing Reconciliation	2,233	488	-3,761	-6,742	0	0
Projected Billing Refunds	0	0	0	0	0	0
(Refund to)/Payment from IMA	2,313	(5,400)	0	0	0	0
Transfer to CAP Fund	0	0	0	0	0	0
Curing Pad + ERP	0	0	0	0	0	0
Pay-Go Capital Financing	(114,221)	(125,719)	(106,473)	(136,294)	(131,423)	(145,231)
(Transfers to)/Transfers from 60-Day Reserve	0	0	0	0	0	0
Ending Undesignated Reserve Balance	108,864	148,178	155,178	164,178	174,178	179,178
Beginning 60-Day Operating Reserve Balance	52,422	52,422	52,422	52,422	52,422	52,422
Additions to/(Transfers from) 60-Day Reserve	0	0	0	0	0	0
60-Day Operating Reserve Balance	52,422	52,422	52,422	52,422	52,422	52,422
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

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Ending Balance Cash Reserve	196,286	235,600	242,600	251,600	261,600	266,600
District Stormwater Fee - DC Water Share (K)	1,148	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] ¹⁰	125,500	125,500	125,500	125,500	125,500	125,500
Beginning Rate Stabilization Fund Balance	90,244	87,744	35,644	35,644	35,644	35,644
Transfers from Operations (Additions to Rate Stabilization Fund)	0	0	0	0	0	0
Additions to Operations/(Transfers from) Rate Stabilization Fund	2,500	51,200	0	0	0	0
Rate Stabilization Fund Balance	87,744	35,644	35,644	35,644	35,644	35,644

- ¹ Includes retail revenue from water and wastewater charges as well as the Clean Rivers 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 Year 2023 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 the anticipated Fiscal Year [Series 2022 Bonds] is calculated based on an assumed annual true interest cost of 3.34%, a term of 30 years and level debt service. Debt service for the anticipated 2019 Series C Bonds is based on an assumed annual true interest cost of 3.09%, a term of 35 years and with no principal payments during the period of Fiscal Year 2019 through Fiscal Year 2023. Debt service for anticipated future bonds starting in Fiscal Year 2020 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 2020, and 6.00% in Fiscal Year 2021 and all subsequent years.
- ⁵ Total Senior Debt Service (D) and Total Subordinate Debt Service (E) includes debt service payments on anticipated future bonds of the Authority, based on the terms noted in footnote 4 above. The Authority has applied for loans to finance a portion of its CIP pursuant to the Water Infrastructure Finance and Innovation Act of 2014 (WIFIA), a federal credit program administered by EPA for eligible water and wastewater infrastructure projects. The application amount is a total of \$144 million to be disbursed over multiple years. If such loans are approved, it is anticipated that: a) the amount of the bonds issued in future years by DC Water will be reduced by the principal amount of the loans received from the WIFIA program; and b) the annual debt service payments on such loans will be approximately equal to or less than the debt service that would be required if the Authority issued bonds in lieu of accepting the loan proceeds.
- ⁶ The Total Subordinate Debt Service is net of the Build America Bonds (BABs) subsidies the Authority expects to receive from the United States Treasury equal to approximately 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 2022 BONDS] - Direct Payments - Sequestration."
- ⁷ 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."
- ⁸ 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 Series 2016B Bonds are subordinate, multimodal variable rate bonds, initially issued bearing a 3.43% fixed rate through the mandatory tender date, April 1, 2021 (Fiscal Year 2021). The subordinate debt service shown above includes principal and interest payments through Fiscal Year 2021 and assumes that no outcome payment is payable by the Authority. In the event that an outcome payment is necessary, the Authority estimates that its maximum obligation would be \$3.3 million, payable in full in Fiscal Year 2021. Any outcome payment up to and including the maximum obligation would not be material to the annual cash flows of the Authority. In the event that the maximum obligation amount has to be paid in Fiscal Year 2021: a) the projected Senior Debt Service Coverage does not change, b) the projected Subordinate Debt Service Coverage would be 2.12, and c) the Projected Combined Coverage would be 1.75.
- ⁹ Beginning in Fiscal Year 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.
- ¹⁰ 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. Actual results are projected to be higher than required under Board policy; see the explanation provided herein.

Source: Amawalk (Totals may not add due to rounding.)

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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 2021, and the projected revenues for Fiscal Years 2022 through 2026.

Table 22. Historical and Projected Revenue on a Cash Basis

Fiscal Years ended/ending September 30¹

(\$ in thousands)¹

	Actual ²	Projected ³				
	2021	2022	2023	2024	2025	2026
Retail Revenue						
Residential, Commercial, Multi-Family	\$323,874	\$361,143	\$387,599	\$412,689	\$438,890	\$467,308
D.C. Municipal Government	12,274	11,445	12,293	13,083	13,924	14,818
Federal Government	54,665	62,100	54,247	57,732	61,441	65,389
D.C. Housing Authority	11,035	11,521	12,376	13,171	14,017	14,918
Groundwater ⁴	0	5	5	5	5	5
Metering Fee	14,862	24,083	24,083	24,083	24,083	24,083
Water System Replacement Fee ⁵	42,212	39,717	39,717	39,717	39,717	39,717
CRIAC	<u>104,356</u>	<u>89,179</u>	<u>94,914</u>	<u>116,819</u>	<u>111,949</u>	<u>115,612</u>
Total Retail Revenue	\$563,277	\$599,193	\$625,234	\$677,299	\$704,026	\$741,849
Wholesale Revenue						
Loudoun County & Potomac Interceptor	\$11,189	\$10,443	\$10,757	\$11,079	\$11,412	\$11,754
WSSC	56,954	59,049	60,821	62,645	64,525	66,460
Fairfax County	<u>14,844</u>	<u>15,176</u>	<u>15,632</u>	<u>16,101</u>	<u>16,584</u>	<u>17,081</u>
Total Wholesale Revenue	\$82,986	\$84,669	\$87,209	\$89,825	\$92,520	\$95,295
Other Revenues						
District Stormwater Fee – D.C. Water Share	\$1,148	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Transfer from Rate Stabilization Fund	2,500	52,100	0	0	0	0
Miscellaneous Revenues	34,225	35,805	36,264	37,171	37,914	40,046
Aqueduct Debt Service Revenue from Falls Church and Arlington	193	193	193	193	193	193
Interest Income	3,627	3,437	3,968	6,457	8,646	11,368
PILOT/D.C. Right of Way Occupancy Fee	<u>21,612</u>	<u>21,588</u>	<u>23,070</u>	<u>23,430</u>	<u>23,796</u>	<u>24,170</u>
Total Other Revenue	\$63,305	\$114,123	\$64,495	\$68,251	\$71,549	\$76,777
Total Operating Cash Receipts	\$631,173	\$682,337	\$680,472	\$740,191	\$787,461	\$836,313
Less: Contributions to Rate Stabilization Fund	0	0	0	0	0	0
Total Operating Cash Receipts with RSF Transfers	\$709,568	\$797,985	\$776,937	\$835,375	\$868,095	\$913,922

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

² Preliminary results, unaudited.

³ Fiscal Year 2019 - 2023 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 2017 through 2021, retail revenues accounted for approximately 81.0% of total revenue (excluding the PILOT/ROW Fee and the effects of withdrawals from the Rate Stabilization Fund), wholesale customer payments represented about 12.5% of total revenues, with the remaining 6.5% coming from a variety of sources, such as interest income, the District fire protection fee, IMA contributions for indirect costs 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 the PILOT/ROW Fees, will be \$600.6 million in Fiscal Year 2022, or 82.7% of the Authority’s total revenues (excluding the PILOT/ROW Fee and transfers from the Rate Stabilization Fund). This amount includes approximately \$89.2 million from the CRIAC and \$39.7 million from the Water System Replacement Fee. Excluding CRIAC and the Water System Replacement Fee, Fiscal Year 2022 projected revenue is expected to be \$55.0 million, or 13.2%, higher than the Fiscal Year 2021 revenues from retail customers. The projected increase in retail revenue assumes the consumption of retail customers will be lower in Fiscal Year 2022 compared to Fiscal Year 2021.

Revenues from retail customers are projected to be \$644.0 million in Fiscal Year 2023. This amount includes approximately \$91.4 million from the CRIAC and \$39.7 million from the Water System Replacement Fee and excludes the PILOT/ROW Fee. Without the effects of the CRIAC and the Water System Replacement Fee, the Fiscal Year 2022 projected revenue represents an increase of \$41.1 million or 8.7% compared to the projected Fiscal Year 2022 revenues.

Retail revenues in Fiscal Years 2024 through 2026 are anticipated to increase in each year reflecting both the effects of anticipated changes in rates (as illustrated in Table 13) 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 \$104.4 million in Fiscal Year 2021. CRIAC revenues are projected to decrease to \$89.2 million in Fiscal Year 2022 due to a rate adjustment to better reflect the cost of service. Rates and revenues from the CRIAC in Fiscal Years 2022 and 2023 are expected to be lower than in Fiscal Year 2021 and rates and revenues from wastewater charges are expected to be higher due to both: a) increases in the cost of service, and b) an allocation of a portion of the costs of the LTCP to wastewater charges in lieu of the CRIAC. The allocation of a portion of LTCP costs to wastewater charges is based on an analysis prepared by the Authority which estimates that sanitary sewage comprises 37% of combined wastewater and stormwater. DC Water expects to allocate a portion of the LTCP costs to wastewater charges in three stages, beginning with an 18% allocation in Fiscal Year 2020. In Fiscal Years 2021 and 2022, the allocated portions are expected to be 28% and 37%, respectively. Allocated LTCP costs in Fiscal Year 2023 are expected to remain at the 37% level. Amawalk reviewed the Authority’s analysis and found it to be reasonable and consistent with industry practice. The expected reduction in Fiscal Year 2022 CRIAC revenue of \$15.2 million represents a decrease of 14.5% from the prior year. The revenues from the CRIAC in Fiscal Year 2023 and subsequent years are expected to increase reflecting the effects of projected rate increases.

Water System Replacement Fee

The revenues from Water System Replacement Fee were \$42.2 million in Fiscal Year 2021. It is assumed for projection purposes that the Water System Replacement Fee will generate \$39.7 million per year from Fiscal Year 2022 and through 2026.

Stormwater Revenues

In Fiscal Year 2021, the Authority collected \$1.15 million in stormwater fees from its retail accounts to cover its share of District stormwater expenditures, and it anticipates that it will collect \$1.0 million in each Fiscal Year from 2022 to 2026. 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 which is assumed to be constant during the projection period. 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 2021, the Authority received \$83.0 million in revenue from its wholesale customers pursuant to the IMA. Revenues from wholesale customers are expected to increase to \$84.7 million in Fiscal Year 2022 and \$85.7 million in Fiscal Year 2023. The revenues from the wholesale customers in Fiscal Years 2024 through 2026 are projected to increase reflecting the effects of projected cost increases for such customers 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 2022 through Fiscal Year 2026.

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, reserve requirements, fund balances and market conditions affecting interest rates and other investment terms. In Fiscal Year 2021, the Authority received \$3.6 million in revenue from interest earnings. The Authority has projected interest earnings of \$3.4 million in Fiscal Year 2022, \$4.4 million in Fiscal Year 2023, \$4.4 million in Fiscal Year 2024, \$8.7 million in Fiscal Year 2025 and \$10.3 million in Fiscal Year 2026, including interest earned from the bond reserves. The assumed annual interest earnings rates for the funds are: 1.0% in Fiscal Years 2022 and 2023, 2.0% in Fiscal Years 2024 and 2025, and 2.5% in Fiscal Year 2026. Projected fund balances and interest rate assumptions are reviewed annually as part of the Authority's budget process. 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 2022.

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 2021 were \$34.2 million. Revenues from these sources are expected to increase to \$36.5 million in Fiscal Year 2022. Miscellaneous revenues are expected to total \$41.7 million per year in Fiscal Year 2023, \$43.6 million in Fiscal Year 2024, \$41.7 million in Fiscal Year 2025, and \$44.3 million in Fiscal Year 2026.

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 2022, and increase to \$24.2 million in Fiscal Year 2026. The Authority and the District have negotiated new MOUs for both the PILOT and the ROW (see "THE AUTHORITY – Authority's Relationship to the District").

System Expenditures

Operating Expenses

Table 23 presents the historical Operating and Maintenance (“O&M”) expenses of the Authority for Fiscal Year 2021, approved (projected) O&M expense for Fiscal Year 2022, and the projected O&M expenses for Fiscal Years 2023 through 2026 on a cash disbursement basis.

The approved expenses for Fiscal Year 2022 reflect the current adopted budget of the Authority which represents a 2.6% increase over the expenses for Fiscal Year 2021, excluding the PILOT/ROW Fee payments to the District. The anticipated expenses for Fiscal Year 2023 reflect an annual increase of 2.9% over the projected expenses for Fiscal Year 2022, excluding the PILOT/ROW Fee payments to the District.

Table 23. Historical and Projected Operation and Maintenance Costs on a Cash Disbursement Basis
Fiscal Years ended/ending September 30¹
(\$ in thousands)¹

	Actual²	Approved	Projected³			
	2021	2022	2023	2024	2025	2026
Personnel Services	\$145,734	\$155,267	\$159,925	\$164,723	\$169,664	\$174,754
Contractual Services	82,459	88,504	91,159	93,894	96,711	99,612
Water Purchases	34,796	35,217	36,274	37,362	38,483	39,637
Chemical & Supplies	38,377	34,402	35,228	36,285	37,373	38,495
Utilities & Rent	30,962	27,329	28,422	29,559	30,741	31,971
Small Equipment	502	1,108	1,141	1,175	1,211	1,247
Total O&M Expenses	332,830	341,627	352,149	362,998	374,183	385,716
PILOT/D.C. ROW Occupancy Fee	\$22,372	\$22,718	\$23,070	\$23,430	\$23,796	\$24,170
Total Expenses	\$355,203	\$364,435	\$375,219	\$386,427	\$397,980	\$409,886

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

² Preliminary results; unaudited.

³ Fiscal Year 2023 – 2026 cost projections are based on the Authority’s Financial Plan.

Source: Amawalk

Table 24 provides a comparison of the budgeted versus actual costs for Fiscal Years 2019, 2020 and 2021 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	2019			2020			2021		
	Approved Budget	Actual Cost	Variance	Approved Budget	Actual Cost	Variance	Approved Budget	Actual Cost ²	Variance
Personnel Service	\$162,620	\$157,979	\$4,641	\$170,680	\$159,244	\$11,436	\$177,863	\$165,032	\$12,831
Contractual Service	81,679	76,206	5,473	81,886	74,503	7,383	88,532	73,576	14,956
Water Purchase	30,520	32,430	(1,910)	34,929	31,696	3,233	36,250	33,135	3,115
Chemical & Supplies	32,091	34,979	(2,888)	33,158	28,659	4,499	36,081	34,244	1,837
Utilities & Rent	26,905	25,778	1,127	26,953	24,705	2,248	27,911	27,329	582
Small Equipment	1,240	731	509	989	806	183	1,030	1,033	(3)
Debt Service	199,025	193,035	5,990	207,340	199,056	8,284	222,268	204,878	17,390
Cash Financed Capital Improvements	26,999	26,999	0	28,556	28,556	0	30,355	30,355	0
PILOT/ROW	21,702	21,702	0	22,034	22,034	0	22,374	22,374	0
Total Budgetary Basis Expenditures	\$582,781	\$569,839	\$12,942	\$606,525	\$569,259	\$37,266	\$642,664	\$591,956	\$50,708

¹ All figures are presented on an accrual basis.

² These figures include estimated incurred but unpaid invoices and are subject to revision during year-end closeout and final audit.

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.

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% of the total personnel services budget in Fiscal Year 2021 and 22% of the total personnel services budget in Fiscal Year 2022.

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 2021, including an allowance for fringe benefits, totaled \$8.2 million, or about 4.6% of total personnel services costs.

Total Personnel Expenses. On a cash basis, the Authority's personnel costs increased at an annual average of 4.6% per year from Fiscal Year 2017 through Fiscal Year 2021. In Fiscal Years 2022 and 2023, personnel expenses are expected to increase by 6.5% and 0.3%, respectively, from the prior year. Beginning in Fiscal Year 2024, 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 cash basis costs for contractual services in FY 2021 were \$82.5 million. The budgeted amounts for contractual services in Fiscal Year 2022 and Fiscal Year 2023 are similar at \$88.5 million and \$88.5 million, respectively. Contractual services expenses are assumed to increase at the average annual rate of 3.1% for Fiscal Year 2024 and 3.0% in Fiscal Years 2025 and 2026.

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.

The actual operating costs for water purchases in Fiscal Year 2021 were \$34.8 million on a cash basis. The budgeted amount for water purchases in Fiscal Year 2022 and the projected amount for Fiscal Year 2023 is \$35.2 million and \$40.3 million, respectively. An average annual increase in water supply costs of 3.0% is assumed in Fiscal Years 2024 through 2026.

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 2021 on a cash basis were \$38.4 million. The budgeted expenses for chemicals and supplies in Fiscal Year 2022 and the projected amount for Fiscal Year 2023 are \$34.2 million and \$37.0 million, respectively. An average annual increase in costs for chemicals and supplies of 3.5%, 4.0% and 3.0% is assumed in Fiscal Years 2024, 2025 and 2026, respectively.

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 2021, approximately 63% of the expenses associated with utilities and rent were attributable to the cost of power. The combined heat and power facility provides over 23% 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 ConEdision 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. The contract was modified and extended through September 30, 2020.

The Authority has also entered into a Solar Power Purchase Agreement ("Solar PPA") with Marbury Point Solar LLC ("Marbury") on June 14, 2018, under which Marbury will engineer, design, permit, construct, install, finance, own, operate and maintain a solar photovoltaic power generation system at Blue Plains in order to provide a portion of the electricity necessary for the operation of Blue Plains. The Solar PPA has an initial term of 20 years, renewable at the discretion of the Authority. The Authority has agreed to purchase all of the energy output from the project contemplated under the Solar PPA. The Authority may terminate the Solar PPA at any time, but is obligated to pay a termination value which is a sliding scale from the first year valued at \$24,972,127 through the twentieth year valued at \$1,048,575. Upon expiration of the Solar PPA, the Authority may purchase the subject solar system from Marbury at fair market value. The Blue Plains Phase I solar project began generating power in June of 2021. The Authority, as dictated by the Solar PPA, pays \$0.025/kwhr for the power and as a result has avoided paying grid power

costs, which were approximately \$0.10/kwhr in December 2021. Based on current generation, the estimated savings is \$440,000/year.

Reserve Funds

The Authority maintains various reserve funds as previously described herein. See “SECURITY FOR THE SERIES 2022E 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 December 31, 2021.

Financial Policies, Debt Policy and Guidelines

The policies are designed to promote sound financial management, achieve high quality investment grade bond ratings to help ensure the lowest cost of debt necessary to finance the Authority's long-term capital program, guide day-to-day financial and management decisions by the Authority, and reduce financial risk associated with events that could interrupt customer payments or financial markets, or require a large unanticipated outlay of cash (major repairs).

- vii. The Authority will maintain strong levels of Operating Cash Reserves that exceed the Master Indenture requirements. In the Financial Plan that is proposed by the CEO and General Manager and approved by the Board, 250 days of cash will be maintained in each fiscal year based on projected Operating Expenses. Days of Cash on Hand will be calculated on an average daily balance basis for the projections in the Financial Plan.
- viii. It is the policy of the Board that the Financial Plan developed by the CEO and General Manager and adopted by the Board will contain a minimum combined debt service coverage of 1.60x for the budget and all years of the Financial Plan. Debt service coverage will be calculated in accordance with the Master Indenture.
- ix. The Authority will, 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. The Authority will attempt to match the period of debt repayment, in total, with the lives of the assets financed by any such debt.
- x. The Authority will use operating cash in excess of the Board's Operating Cash Reserve requirement and any other significant one-time cash infusions for capital financing, repayment of higher cost debt (debt defeasance), or non-recurring expenses that reduce ongoing costs. The budget and the financial plan will be structurally balanced; the Authority will use onetime revenues for one-time expenses.

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.

- 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.

Cash Management and Investment Policies

In January 2022, 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.

Green Bond Framework

On October 7, 2021 the Board issued a Green Bond Framework to formalize the process and commitments that govern the Authority’s issuance of Green Bonds. The Green Bond Framework governs the use of Green Bond proceeds, project selection and evaluation processes, management of Green Bond proceeds and disclosure. At the time of issuance of a Green Bond, the Authority’s policy is to seek an independent Second Party Opinion on the sustainability of the Green Bond to be issued.

ENGINEERING FEASIBILITY REPORT [UPDATE]

The Authority retained Johnson, Mirmiran & Thompson, Inc. (“JMT”) to prepare the Independent Engineering Inspection of the DC Water Wastewater and Water Systems dated March 28, 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 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 [_____, 2022], which is attached hereto as APPENDIX A. 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.

[update] The conclusions set forth in the Financial Feasibility Opinion Letter reflect Amawalk's analysis of the Authority's anticipated financial results for Fiscal Years 2022 to 2028. 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. This policy requirement exceeds the minimum Operating Reserve fund requirements set forth in the Indenture. 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. In January 2019, Authority staff recommended to further enhance the Authority's cash position and maintain a target of 250 days of cash on hand. There can be no assurance that the Board will maintain or modify its current financial policy.

- The water and wastewater rates, fees and charges of the Authority, including projected increases for FY 2020 through FY 2023, 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

In the opinion of Squire Patton Boggs (US) LLP and Bellamy Penn LLC, Co-Bond Counsel, under existing law: (i) interest on the Series 2022E 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; and (ii) the Series 2022E 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 2022E 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 2022E 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 2022E 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 2022E Bonds being included in gross income for federal income tax purposes retroactively to the date of issuance of the Series 2022E Bonds. The Authority has covenanted to take the actions required of it for the interest on the Series 2022E 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 2022E 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 2022E Bonds or the market value of the Series 2022E Bonds.

Interest on the Series 2022E 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 2022E Bonds. Co-Bond Counsel will express no opinion regarding those consequences.

Payments of interest on tax-exempt obligations, including the Series 2022E Bonds, are generally subject to IRS Form 1099-INT information reporting requirements. If a Series 2022E 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 2022E Bonds ends with the issuance of the Series 2022E Bonds, and, unless separately engaged, Co-Bond Counsel is not obligated to defend the Authority or the owners of the Series 2022E 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 2022E Bonds, under current IRS procedures, the IRS will treat the Authority as the taxpayer and the beneficial owners of the Series 2022E 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 2022E 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 2022E Bonds.

Prospective purchasers of the Series 2022E 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 2022E Bonds at other than their original issuance, should consult their own tax advisors 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 2022E Bonds. There can be no assurance that legislation enacted or proposed, or actions by a court, after the date of issuance of the Series 2022E Bonds will not have an adverse effect on the tax status of interest on the Series 2022E Bonds or the market value or marketability of the Series 2022E 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 2022E Bonds from gross income for federal or state income tax purposes for all or certain taxpayers.

For example, federal tax legislation that was enacted on December 22, 2017 reduced corporate tax rates, modified individual tax rates, eliminated many deductions, repealed the corporate alternative minimum tax, and eliminated the tax-exempt advance refunding of tax-exempt bonds and tax-advantaged bonds, among other things. Additionally, investors in the Series 2022E Bonds should be aware that future legislative actions might increase, reduce or otherwise change (including retroactively) the financial benefits and the treatment of all or a portion of the interest on the Series 2022E Bonds for federal income tax purposes for all or certain taxpayers. In all such events, the market value of the Series 2022E Bonds may be affected and the ability of holders to sell their Bonds in the secondary market may be reduced.

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

Original Issue Discount and Original Issue Premium

Certain of the Series 2022E 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 Series 2022E 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. 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 2022E 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 advisors 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 2022E Bonds or questioning or affecting the validity of the Series 2022E 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 2022E Bonds are subject to the approving opinions of Squire Patton Boggs (US) LLP and Bellamy Penn LLC, Co-Bond Counsel, which will be furnished upon delivery of the Series 2022E Bonds, substantially in the form set forth as APPENDIX F. Squire Patton Boggs (US) LLP and Bellamy Penn 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 Underwriter by their co-counsel, Orrick, Herrington & Sutcliffe LLP and McKenzie & Associates.

INDEPENDENT AUDITORS

The financial statements of the Authority for Fiscal Years ended September 30, 2020 and 2021 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 Computer Share Trust Company, 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 2022E 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 2022E Bonds by the Authority. The Trustee has not evaluated the risks, benefits, or propriety of any investment in the Series 2022E 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 2022E Bonds, the technical or financial feasibility of the Project, or the investment quality of the Series 2022E 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"), Moody's and Fitch Ratings ("Fitch") have assigned long-term municipal bond ratings of "___," "___" and "___" respectively, to the Series 2022E Bonds. A securities rating is not a recommendation to buy, sell or hold the Series 2022E 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; from Moody's at 7 World Trade Center, New York, New York 10007; and from Fitch Ratings at 300 West 57th Street New York, New York 10019. 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 2022E 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 2022E Bonds, which will constitute a written undertaking for the benefit of the Owners of the Series 2022E Bonds, solely to assist the Underwriter 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 ADVISOR

PFM Financial Advisors LLC has served as financial advisor (the "Financial Advisor") to the Authority with respect to the issuance of the Series 2022E Bonds.

UNDERWRITING

RBC Capital Markets, 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 2022E Bonds at an aggregate purchase price equal to \$[___] (which amount constitutes the aggregate principal amount of the Series 2022E Bonds of \$[___], plus original issue premium of \$[___], less the Underwriter's discount of \$[___]).

The Bond Purchase Agreement by and among the Authority and the Representative dated _____, 2022 (the "Series 2022E Bond Purchase Agreement"), provides that the Underwriters will purchase all of the Series 2022E Bonds, if any are purchased, and the obligation to make such purchases is subject to certain terms and conditions set forth in the Series 2022E Bond Purchase Agreement, the approval of certain legal matters by counsel and certain other conditions.

The Series 2022E Bonds may be offered and sold to certain dealers (including dealers depositing the Series 2022E 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. The Underwriters 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.

In addition, certain of the Underwriters have entered into distribution agreements with other broker-dealers (that have not been designated by the Authority as Underwriters) for the distribution of the Series 2022E Bonds at the original issue prices. Such agreements generally provide that the relevant Underwriter will share a portion of its underwriting compensation or selling concession with such broker-dealers.

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.

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 2022E Bonds is fully set forth in the Indenture. Neither any advertisement of the Series 2022E Bonds nor this Official Statement is to be construed as constituting an agreement with the purchasers of the Series 2022E Bonds.

The information contained herein should not be construed as representing all conditions affecting the Authority or the Series 2022E 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 and Executive Vice
President, Finance and Procurement

APPENDIX A
FINANCIAL FEASIBILITY OPINION LETTER OF
AMAWALK CONSULTING GROUP LLC
DATED [_____, 2022]

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APPENDIX B

**AUDITED FINANCIAL STATEMENTS OF THE AUTHORITY
FOR THE YEARS ENDED [SEPTEMBER 30, 2020, AND 2021]**

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APPENDIX C
GLOSSARY AND SUMMARY OF THE INDENTURE

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GLOSSARY

In addition to the terms defined elsewhere in this Official Statement, the following are definitions of certain terms used in this Official Statement, and the Indenture. Terms used but not defined herein shall have the meanings set forth in the Master Indenture, as previously amended and supplemented and as further amended and supplemented by the Thirty-Second Supplemental Indenture.

“**Account**” shall mean any of the various Accounts, sometimes created within a fund, under the Indenture.

“**Annual Budget**” shall mean the budget by that name referred to in the Indenture.

“**Annual Debt Service**” shall mean the amount of payments required to be made for principal of and interest on any specified Indebtedness, including mandatory sinking fund redemptions and payments pursuant to agreements with providers of credit enhancement or liquidity support with respect to such Indebtedness, to reimburse such providers for debt service payments made, with respect to such Indebtedness, scheduled to come due within a specified Fiscal Year, but excluding any capitalized interest funded from proceeds of Bonds. For purposes of calculating Annual Debt Service, the following assumptions are to be used to calculate the principal and interest due in such specified Fiscal Year:

(a) In determining the principal amount due in the Fiscal Year, payment shall be assumed to be made in accordance with any amortization schedule established for such Indebtedness (unless a different subsection of this definition applies for purposes of determining principal maturities or amortization), including any scheduled redemption of such specified Indebtedness on the basis of accreted value and, for such purpose, the redemption payment shall be deemed a principal payment;

(b) If any of the specified Indebtedness constitutes Tender Indebtedness, then Annual Debt Service on the options or obligations of the holders of such Indebtedness to tender the same for purchase or payment prior to their stated maturity or maturities shall be treated as a principal maturity occurring on the first date on which owners of such Indebtedness may or are required to tender such Indebtedness, except that any such option or obligation to tender Indebtedness shall be ignored and not treated as a principal maturity if (1) such Indebtedness is rated at least in the “A” rating category (without regard to any rating refinement or gradation by numerical modifier or otherwise) by a Rating Agency, or such Indebtedness is rated in the two highest short-term note or commercial paper rating categories by a Rating Agency, and (2) any obligation the Authority may have, other than its obligation on such Indebtedness, to reimburse any provider of a credit or liquidity facility or a bond insurance policy, or similar arrangement, shall either be subordinate to the obligation of the Authority on such Indebtedness, or shall have been incurred under and shall have met the tests and conditions for the issuance of such specified indebtedness set forth in the Indenture;

(c) If any of the specified Indebtedness constitutes Variable Rate Indebtedness, the interest rate on such Indebtedness shall be assumed to be 100% of the greater of (1) the daily average interest rate on such Indebtedness during the 12 months ending with the month preceding the date of calculation, or such shorter period that such Indebtedness shall have been Outstanding or (2) the rate of interest on such indebtedness on the date of calculation; provided that, with respect to any Variable Rate Indebtedness which is being issued on the date of computation, the initial rate of such indebtedness upon such issuance shall be used;

(d) If any of the specified Indebtedness constitutes Balloon Indebtedness, then, for purposes of determining the annual amount payable on account of principal of and interest on such Indebtedness, such Indebtedness that is or would be Balloon Indebtedness shall be amortized on a level debt service basis over

the lesser of a term of 30 years or the actual term of the Indebtedness; and the interest rate used for such computation shall be the rate quoted in the 30-year revenue bond index, or revenue bond index related to the actual term of the Indebtedness, as applicable, published by The Bond Buyer no more than two weeks prior to the date of calculation, or if that index is no longer published, another similar index selected by the Authority, or if the Authority fails to select a replacement index, an interest rate equal to 80% of the yield for outstanding United States Treasury bonds having an equivalent maturity as the Indebtedness on the date of issuance, or if there are no such Treasury bonds having equivalent maturities, 80% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States of America ranked by assets;

(e) If any of the specified Indebtedness constitutes Short-Term Obligations, then for purposes of determining the Annual Debt Service on such Indebtedness, the Authority shall include the amount of any interest payments due on such Indebtedness if such interest is payable from Net Revenues during such Fiscal Year, and ignore any principal payments due on such Indebtedness if (1) such Indebtedness is rated at least in the “A” rating category (without regard to any rating refinement or gradation by numerical modifier or otherwise) by a Rating Agency, or such Indebtedness is rated in the two highest short-term note or commercial paper rating categories by a Rating Agency, (2) there is in place a letter of credit, liquidity facility, a bond insurance policy, or similar arrangement (a “Credit Facility”), and the Authority’s obligation to reimburse the provider of such Credit Facility is subordinate to the Authority’s obligation to pay debt service on Bonds, and (3) there are no unreimbursed draws under any Credit Facility securing any Short-Term Obligations. If there are any unreimbursed draws under a Credit Facility related to such Indebtedness, the principal payment obligation due on such Indebtedness shall be determined to be the principal due under such Credit Facility and shall be calculated in accordance with the amortization schedule set forth with respect to such Credit Facility.

(f) If any of the specified Indebtedness constitutes Bond Anticipation Notes, then for purposes of determining the annual amount payable on account of principal of and interest on such Indebtedness, such Indebtedness shall be amortized on a level debt service basis over a term of 30 years. Interest on such Indebtedness shall equal the actual fixed rate of interest payable during the Fiscal Year. If such Indebtedness is Variable Rate Indebtedness, interest payable during such Fiscal Year shall be calculated in accordance with subsection (c) above.

(g) For any Indebtedness for which a binding commitment, letter of credit or other credit arrangement providing for the extension of such Indebtedness beyond its original maturity date exists, the computation of the annual amount payable on account of principal and interest on such Indebtedness shall, at the option of the Authority, be made on the assumption that such Indebtedness will be amortized in accordance with such credit arrangement; and

(h) Except for Hedge Agreements, Interest Rate Swaps are to be disregarded in calculating the Series Debt Service Reserve Requirement. Upon incurrence of a Hedge Agreement, all calculations, including for the annual amount on account of principal and interest on Indebtedness subject to the Hedge Agreement, shall be made using the Hedge Fixed Rate for the applicable period and such Indebtedness shall not be considered as Variable Rate Indebtedness for such period.

“**Authority**” shall mean the District of Columbia Water and Sewer Authority, an independent authority of the District.

“**Authorized Representative of the Authority**” shall mean such person or persons as may be designated to act on behalf of the Authority by a certificate executed by the Chairman of the Board of Directors and on file with the Trustee.

“Balloon Indebtedness” shall mean indebtedness having a term of longer than 60 months and 25% or more of the principal of which matures on the same date and which portion of the principal of such indebtedness is not required to be amortized by payment or redemption prior to such date. If any indebtedness consists partially of Variable Rate Indebtedness and partially of indebtedness bearing interest at a fixed rate, the portion constituting Variable Rate Indebtedness and the portion bearing interest at a fixed rate shall be treated as separate issues for purposes of determining whether any such indebtedness constitutes Balloon indebtedness.

“Board of Directors” shall mean the board of directors that was established to govern the Authority pursuant to Section 204 of the WASA Act, codified, as amended, at D.C. Code Section 34-2202.04.

“Bond Anticipation Notes” shall mean any notes issued in anticipation of the issuance of Bonds.

“Bond Counsel” shall mean an attorney or firm of attorneys nationally recognized on the subject of municipal bonds.

“Bond Fund” shall mean the Bond Fund established in the Indenture.

“Bondholders” or **“holders”** of Bonds shall mean the registered owners of Bonds.

“Bonds” shall mean any bonds, notes or other obligations issued from time to time pursuant to Article III, including Bond Anticipation Notes, but not including Other System Indebtedness and Subordinate Debt.

“Business Day” shall mean a day other than (i) a Saturday or Sunday, (ii) a day on which commercial banks located in New York, New York or the cities in which the Designated Office of the Trustee, the Tender Agent, the Remarketing Agent or the Credit Facility Provider are located, are required or authorized by law or executive order to close, and (iii) a day on which the New York Stock Exchange is closed.

“Cash Reserve Requirement” shall mean those certain balances required to be maintained by the Authority pursuant to the annual credit policies established by the Authority.

“Code” shall mean the Internal Revenue Code of 1986, as amended, including applicable regulations, rulings and revenue procedures promulgated or applicable thereunder.

“Connection Fees” shall mean all nonrecurring fees that the Authority collects from developers, builders or others (1) to compensate the Authority for providing System capacity, and (2) to connect facilities related to installation of and expansion to the System.

“Contracted Services” shall mean (a) services rendered or facilities provided to the Authority in respect to the System or (b) the performance of functions for or on behalf of the Authority that are similar to those performed by the System, from a specific project or system, pursuant to a contract, lease, service agreement or another similar arrangement. No designation or characterization of payments pursuant to the terms of a particular Service Contract will affect the Authority’s right to make designations as to the Debt Service Component, Operating Component, and Remaining Component of the Cost of Contracted Services thereunder.

“Construction Fund” shall mean the Construction Fund established in the Indenture.

“Consulting Engineer” shall mean (a) an Independent Consulting Engineer or (b) the designated person(s) within the Authority or of any successor department who is (1) an engineer experienced in the field of water or wastewater or stormwater (as appropriate), and (2) licensed and registered as a professional engineer in the District.

“Conversion Date” means a day on which the Series 2022E Bonds are converted from one Rate Period to another Rate Period, in accordance with this Thirty-Second Supplemental Indenture.

“Cost” shall mean Cost as set forth in the Indenture.

“Cost of Contracted Services” shall mean the payments to be made by the Authority for Contracted Services under service contracts as set forth in the Indenture, which may consist of any of the following three components: a Debt Service Component, an Operating Component, and a Remaining Component, as designated by the CEO and General Manager or his designee for each Service Contract.

“Credit Facility” means a letter of credit, liquidity facility or other credit enhancement instrument delivered by a Credit Facility Provider to the Trustee to secure the payment of the principal of and interest on, and any Purchase Price of, all or some of the Variable Rate Series 2022E Subordinate Bonds, or to provide liquidity for the purchase of tendered Variable Rate Series 2022E Subordinate Bonds. The term “Credit Facility” includes any Substitute Credit Facility. The Series 2022E Bonds will not be secured by a Credit Facility during the Initial Period.

“Debt Service Component” shall mean the portion of the Cost of Contracted Services that an Authorized Representative of the Authority determines, in a certificate delivered to the Trustee, to be for the purpose of paying a fixed charge or the principal of or interest on the obligations, directly or indirectly associated with rendering the Contracted Services, of the person providing the Contracted Services.

“Debt Service Reserve Fund” shall mean the Debt Service Reserve Fund established in the Indenture.

“Depository” shall mean any securities depository that is a clearing agency under federal law operating and maintaining, with its participants or otherwise, a book-entry system to record ownership of book-entry interests in the Series 2022E Bonds, and to effect transfers of book-entry interests in the Series 2022E Bonds, and includes and means initially The Depository Trust Company (a limited purpose trust company), New York, New York.

“Direct Payment” means a credit payment allowed pursuant to Section 54AA(g) of the Code with respect to Direct Payment BABs that is payable to the Authority by the U.S. Treasury, as provided in Section 6431 of the Code, or any other payment by the U.S. Treasury to the Authority to subsidize or reimburse the Authority for all or a portion of the interest cost that the Authority may incur on Indebtedness that qualifies for such payment under any successor or substantially similar program to Direct Payment BABs.

“Direct Payment BABs” means Indebtedness that constitutes “Build America Bonds” within the meaning of Section 54AA(d) of the Code and that are qualified bonds within the meaning of Section 54AA(g), the interest on which is includible in gross income for federal income tax purposes and with respect to which the Authority shall have made an irrevocable election to receive one or more Direct Payments.

“District General Obligation Bonds” shall mean the District general obligation bonds issued to finance capital projects of the System and the Aqueduct.

“District MOU relating to the Payment of General Obligation Debt” shall mean the Memorandum of Understanding between the Office of the Chief Financial Officer of the District of Columbia and the Authority dated as of March 13, 1998.

“District MOU relating to the PILOT” shall mean the Memorandum of Understanding between the Office of the Chief Financial Officer of the District of Columbia and the Authority dated as of January 29, 1998, as amended, including, without limitation, pursuant to a September 4, 2014 Memorandum of Understanding, as further amended and restated on December 15, 2014.

“EPA Grants” shall mean grants provided by the Environmental Protection Agency for the construction of water and wastewater projects.

“EPA Grant Account” shall mean the EPA Grant Account established in the Indenture.

“Event of Default” shall mean any of the events enumerated in Section 901 of the Master Indenture or otherwise in the Indenture, and, with respect to the Series 2022E Bonds, any of the events enumerated in Section 903 of the Thirty-Second Supplemental Indenture.

“Fiscal Year” shall mean the twelve-month period, beginning on October 1 of one year and ending on September 30 of the following year, or such other fiscal year of 12 months as may be selected by the Authority.

“Fitch” shall mean Fitch Ratings, Inc. or its successors.

“Government Certificates” shall mean certificates representing proportionate ownership of Government Obligations, which Government Obligations are held by a bank or trust company organized under the laws of the United States of America or any of its states in the capacity of custodian of such certificates.

“Government Obligation” shall mean (a) bonds, notes and other direct obligations of the United States of America, (b) securities unconditionally guaranteed as to the timely payment of principal, if applicable, and interest by the United States of America, or (c) bonds, notes and other obligations of any agency of the United States of America unconditionally guaranteed as to the timely payment of principal and interest by the United States of America.

“Hedge Agreement” shall mean an Interest Rate Swap, cap, collar, floor, forward or other hedging agreement, arrangement or security however denominated, expressly identified pursuant to its terms as being entered into in connection with and in order to hedge interest rate fluctuations on all or a portion of any Indebtedness where (a) interest on such Indebtedness or such portion of such Indebtedness is payable at a variable rate of interest for any future period of time or is calculated at a varying rate per annum, and (b) a fixed rate is specified by the Authority in such agreement, or such Indebtedness, taken together with such agreement, results in a net fixed rate payable by the Authority for such period of time (the “Hedge Fixed Rate”), assuming the Authority and the party(ies) with whom the Authority has entered into the agreement make all payments required to be made by the terms of the agreement, provided that no such agreement may be entered into by the Authority unless any termination or similar payment which may be payable by the Authority thereunder is expressly subordinate to the obligation of the Authority on the Indebtedness.

“Holder” shall mean the owner of Bonds, Other System Indebtedness or the Subordinate Debt, as the case may be.

“Home Rule Act” shall mean the District of Columbia Home Rule Act, approved December 24, 1973 (P.L.93-198; 87 Stat. 774; D.C. Official Code §§ 1-201.01 et. seq.), as amended.

“IMA Capital Payments” shall mean the payments made to the Authority for shared capital costs of the wastewater portion of the System by the signatories to the Blue Plains Intermunicipal Agreement of 1985.

“Indebtedness” shall mean Senior Debt and Subordinate Debt.

“Indenture” shall mean the Master Indenture, as supplemented or amended by one or more Supplemental Indentures, including the Thirty-Second Supplemental Indenture.

“Independent Consulting Engineer” shall mean an independent engineer, who is not an employee of the Authority, but is experienced in the field of water, wastewater or stormwater (as appropriate) and licensed and registered as a professional engineer in the District.

“Initial Period” means the initial Long-Term Interest Period commencing on the Issue Date and ending on the day immediately prior to a new Interest Period.

“Interest Account” shall mean the Interest Account in the Bond Fund established in the Indenture.

“Interest Payment Dates” shall mean (i) when the Variable Rate Series 2022E Subordinate Bonds bear interest at a Daily Rate, a Weekly Rate or an Index Rate, the first Business Day of each calendar month; (ii) when the Variable Rate Series 2022E Subordinate Bonds bear interest at a Fixed Rate or Long-Term Rate, each April 1 and October 1 or such other date or dates as are specified in the applicable notice of conversion, commencing, during the Initial Period, on April 1, 2020; (iii) when the Variable Rate Series 2022E Subordinate Bonds bear interest at a Short-Term Rate, the last day of the Short-Term Rate Period; (iv) with respect to Credit Facility Provider Bonds, the interest payment dates set forth in the Credit Facility and/or Reimbursement Agreement; provided (unless otherwise provided in the Reimbursement Agreement with respect to Credit Facility Provider Bonds) that, if any such day is not a Business Day, any payment due on such date may be made on the next Business Day, without additional interest and with the same force and effect as if made on the specified date for such payment; and (v) each Conversion Date.

“Interest Rate Swap” shall mean a contract pursuant to which a party (the “Counterparty”) has agreed to make payments to the Authority during a particular period equal to the interest payable on specified Indebtedness or on a specified nominal amount at the actual rate or rates or, if on a nominal amount at a stated rate or rates, payable thereon and, in consideration therefor, the party obligated on the Indebtedness or otherwise executing the agreement agrees to make payments to the Counterparty equal to the interest required to be paid on the specified Indebtedness or stated to be due on the nominal amount during the period calculated as if the specified Indebtedness or nominal amount bore an assumed rate of interest specified in the contract.

“Long-Term Interest Period” means each Interest Period described in the Thirty-Second Supplemental Indenture of Trust during which Variable Rate Series 2022E Subordinate Bonds accrue interest at a particular Long-Term Rate.

“Long-Term Rate” means the per annum interest rate to be determined on the Variable Rate Series 2022E Subordinate Bonds for a term of at least 12 months pursuant to the Thirty-Second Supplemental Indenture of Trust.

“Long-Term Rate Bonds” means any Variable Rate Series 2022E Subordinate Bonds bearing interest at a Long-Term Rate.

“Long-Term Rate Period” means the Rate Period during which Long-Term Rates are in effect for the Variable Rate Series 2022E Subordinate Bonds.

“Master Indenture” shall mean the Master Indenture of Trust dated as of April 1, 1998, by and between the Authority and the Trustee.

“Moody’s” shall mean Moody’s Investors Service, Inc., New York, New York, or its successors.

“Net Proceeds” shall mean the gross proceeds from any insurance recovery or recovery in any condemnation proceeding remaining after payment of attorneys’ fees, fees and all other expenses incurred in collection of such gross proceeds.

“Net Revenues” shall mean Revenues less Operating Expenses.

“Operating Component” shall mean the portion of the Cost of Contracted Services (excluding any Debt Service Component) reasonably determined by an Authorized Representative of the Authority, in a certificate delivered to the Trustee from time to time, to be directly or indirectly attributable to the portion of the Costs of Contracted Services that represents operating expense for the provision of the Contracted Services; provided, however, if no such determination is made, all of the Cost of Contracted Services (excluding any Debt Service Component) will be treated as Operating Component.

“Operating Expenses” shall mean all current expenses directly or indirectly attributable to the ownership or operation of the System, including reasonable and necessary usual expenses of administration, operation, maintenance and repair, costs for billing and collecting the rates, fees and other charges for the use of or the services furnished by the System, the cost of purchased water, amounts to reimburse the Authority for administrative expenses incurred in connection with the System, insurance and surety bond premiums, credit enhancement and liquidity support fees, legal, engineering, auditing and financial advisory expenses, expenses and compensation of the Trustee, and deposits into a self-insurance program as described in the Indenture. Operating Expenses shall not include any payments in lieu of taxes, allowance for depreciation and amortization. Operating Expenses shall also exclude expenses which constitute extraordinary, nonrecurring and non-continuing expenses of the System in the written opinion of the Qualified Independent Consultant.

“Operating Fund” shall mean the Operating Fund established in the Indenture.

“Operating Reserve Fund” shall mean the Operating Reserve Fund established in the Indenture.

“Operating Reserve Requirement” shall mean an amount equal to 60 days of Operating Expenses based on the Operating Expenses relating to the Fiscal Year prior to such calculation, or an amount determined by a Qualified Independent Consultant.

“Opinion of Counsel” shall mean an opinion of any attorney or firm of attorneys acceptable to the Trustee, who may be counsel for the Authority, but who shall not be an employee of either the Authority or the Trustee.

“Other System Indebtedness” shall mean (a) any Debt Service Component that the Authority is required, or has elected, to treat as payable on a parity with the Bonds with respect to the pledge of Net Revenues, and (b) any other Indebtedness incurred by the Authority pursuant to the Indenture that the Authority is required, or has elected, to treat as payable on a parity with the Bonds with respect to the pledge of Net Revenues, including, but not limited to, the Treasury Loans.

“Outstanding” shall mean, when used as descriptive of obligations, that such obligations have been authorized, issued, authenticated and delivered under the Indenture or a different document and have not been canceled or surrendered to the Trustee or a comparable trustee for cancellation, deemed to have been paid as provided in the Indenture, have had other obligations issued in exchange therefor or had their principal become due and moneys sufficient for their payment deposited with the Trustee as provided in the Indenture or, for Indebtedness other than Bonds or Subordinate Debt issued under the Indenture, otherwise so treated under comparable issuance documents. In determining whether holders of a requisite aggregate principal amount of the Outstanding Indebtedness have concurred in any request, demand, authorization, direction, notice, consent or waiver under the Indenture or other documents, words referring to or connoting “principal of” or “principal amount of” Outstanding Indebtedness shall be deemed also to be references to, to connote and to include the accreted value of Indebtedness of any Series as of the immediately preceding interest compounding date for such Indebtedness. Indebtedness that is owned by the Authority shall be disregarded and deemed not to be Outstanding for the purpose of any such determination.

“Penalty Rate” means, for purposes of Section 407(e) with respect to (i) Soft Tender Index Rate Bonds and Soft Tender Long-Term Rate Bonds after they are tendered for purchase but not purchased, eight percent (8%) per annum, or (ii) Variable Rate Series 2022E Subordinate Bonds bearing interest at the Weekly Rate, Daily Rate, Short-Term Rate or Hard Tender Long-Term Rate Bonds with no Credit Facility in effect and funds are insufficient to purchase such Variable Rate Series 2022E Subordinate Bonds on a Purchase Date, the Maximum Rate.

“Permitted Investments” shall mean: (i) direct obligations of the United States of America (including obligations issued or held, in book-entry only form on the books of the Department of the Treasury of the United States of America and including certificates or other instruments evidencing ownership interests in such direct obligations of the United States of America) or obligations the timely payment of the principal of and interest on which are fully guaranteed by the United States of America; (ii) obligations issued or guaranteed by Federal Home Loan Bank System, Export-Import Bank of the United States, Federal Financing Banks, Government National Mortgage Association, Federal National Mortgage Association, Farmer’s Home Administration, Federal Home Loan Mortgage Corporation or Federal Housing Administration; or by any agency, department or instrumentality of the United States if such obligations are rated in one of the two highest rating categories by Fitch, S&P and Moody’s if in any such case the timely payment of principal and interest on such obligations is backed by the full faith and credit of the United States of America; (iii) investment agreements meeting the investment criteria issued by a credit enhancer; (iv) interest-bearing bankers acceptances or certificates of deposit of, or time deposits in any bank (including the Trustee), lead bank of a parent holding company, or any savings and loan associations whose unsecured obligations are rated in one of the two highest rating categories by Fitch, S&P and Moody’s, provided such deposits are either (a) secured at all times, in the manner and to the extent provided by law, by collateral security (described in clause (i) or (ii) of this definition) of a market value of no less than the amount of moneys so invested or (b) fully insured by the Federal Deposit Insurance Corporation; (v) repurchase agreements which satisfy the following criteria: (a) repurchase agreement which provides for the transfer of securities from dealer banks or securities firms to the Trustee or its agents, and the transfer of cash from the Trustee to the dealer bank or securities firm with an agreement that the dealer bank or securities firm will repay the cash, plus a yield to the Trustee, in exchange for the securities at a specified date; (b) repurchase agreement must be between the Trustee and a dealer bank or securities firm which are either a primary dealer on the Federal Reserve reporting dealer list or a bank rated “A” or above by Fitch, S&P and Moody’s; (c) the written repurchase agreement must include the following terms: (1) securities which are acceptable for transfer are (A) direct United States government obligations, or (B) obligations of federal agencies backed by the full faith and credit of the United States government; (2) with respect to control of the collateral, if the dealer bank or securities firm supplied the collateral pursuant to the repurchase agreement, it may not retain possession of such collateral and the collateral must

be delivered to the Trustee (unless the Trustee is supplying the collateral) or a third party acting as agent for the Trustee before or simultaneous with payment; and (3) the securities must be valued weekly, marked-to-market at current market price plus accrued interest, the value of collateral must be equal to 102% of the amount of cash transferred by the Trustee to the dealer bank or securities firm under the repurchase agreement, plus accrued interest, and if the value of securities held as collateral is less than 102% of the value of the cash transferred by Trustee, then additional cash and/or acceptable securities must be transferred; and (d) to the extent required by a credit enhancer, an opinion of Bond Counsel, to the effect that such repurchase agreements are obligations in which public funds are permitted to be invested under District law, shall be delivered to the Trustee, with a copy to the Series 1998 Bond Insurer; (vi) commercial paper of “prime” quality of the highest ranking or the highest rating category as provided by Fitch, S&P and Moody’s; (vii) obligations, the interest on which is exempt from federal income taxation, and which, if rated by the Rating Agencies, are rated by Fitch, Moody’s and S&P in one of the two highest rating categories of such rating agencies; (viii) a time deposit account drawn on the Trustee for amounts whose aggregation is less than \$5,000; (ix) mutual funds, including any such fund of the Trustee or any affiliate of the Trustee, which invest exclusively in any investment described in clauses (i) through (viii) otherwise left uninvested in the funds; and (x) Federally tax-exempt bonds which are not subject to the AMT for individuals and subject to a put option at par at least semi-annually and rated at least “double-A” by Moody’s, S&P or Fitch, and in the highest short-term rating category by such rating agency.

“Principal Account” shall mean the Principal Account in the Bond Fund established in the Indenture.

“Qualified Independent Consultant” shall mean an independent professional consultant having the skill and experience necessary to provide the particular certificate, report or approval required by the Indenture or any Supplemental Indenture in which such requirement appears, including an Independent Consulting Engineer and an independent certified public accountant.

“Rate Covenant” shall mean the obligation of the Authority to fix, charge, collect and revise rates, fees and other charges for the use of, and the services furnished by, the System sufficient to meet the requirements of the Indenture.

“Rate Period” means (i) a Daily Rate Period (comprised of separate Daily Interest Periods), (ii) a Weekly Rate Period (comprised of separate Weekly Interest Periods), (iii) a Short-Term Rate Period (comprised of separate Short-Term Interest Periods), (iv) a Long-Term Rate Period (comprised of separate Long-Term Interest Periods), (v) a Fixed Rate Period, (vi) an Index Rate Period (comprised of separate Index Interest Periods) or (vii) a Subsequent Index Rate Period (comprised of separate Subsequent Index Interest Periods).

“Rate Stabilization Fund” shall mean the fund so designated which is established pursuant to the Indenture.

“Rating Agency” or **“Rating Agencies”** shall mean Fitch, Moody’s or Standard & Poor’s, or any of them, and their successors. The Authority may seek a rating from any other nationally recognized securities rating agency.

“Remaining Component” shall mean the portion of the Cost of Contracted Services which is not embraced in the definition of Debt Service Component or Operating Component.

“Renewal and Replacement Reserve Fund” shall mean the Renewal and Replacement Reserve Fund established in the Indenture.

“Renewal and Replacement Reserve Requirement” shall mean \$35,000,000 or such other amount as may be determined by a Qualified Independent Consultant, subject to approval by the Board of Directors.

“Reserve Determination Date” shall mean (a) each interest payment date for the Bonds, or (b) any other date established in writing by an Authorized Representative of the Authority for the valuation of obligations on deposit in any Series Debt Service Reserve Account.

“Revenues” shall mean all moneys received as income, rates, fees, charges, receipts, profits and other moneys derived by the Authority from its ownership and operation of the System, and for the use of and for the services furnished by the System, including Connection Fees, transfers from the Rate Stabilization Fund to the Revenue Fund, proceeds of any business interruption insurance, and investment earnings on all of the funds held by the Trustee under the Indenture and the Authority, except any rebate fund that may be created under the Indenture. Revenues shall not include refundable customer deposits, the IMA Capital Payments or other payments solely in aid of construction, the EPA Grants or similar payments, or the proceeds resulting from the sale of all or a portion of the System. For purposes of determining the total amount of Revenues in any year, there shall be deducted an amount equal to the amount transferred from the System Fund to the Rate Stabilization Fund pursuant to the Indenture.

“Senior Debt” shall mean Bonds, including the Series 1998 Bonds, the Series 2014A Bonds, the Series 2017A Bonds, the Series 2017B Bonds, the Series 2018A Bonds, and the Series 2018B Bonds and Other System Indebtedness.

“Series” or **“Series of Bonds”** shall mean a separate series of Bonds issued under the Indenture and a Supplemental Indenture.

“Series Debt Service Reserve Requirement” for any Series of Bonds shall have the meaning set forth in the Supplemental Indenture authorizing such Series of Bonds.

“Series 2022E Bonds” shall mean the Authority’s Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E, issued pursuant to the Thirty-Second Supplemental Indenture.

“Series 2022E Construction Account” shall mean the Series 2022E Construction Account established by the Thirty-Second Supplemental Indenture in the Construction Fund.

“Series 2022E Costs of Issuance Subaccount” shall mean the Series 2022E Costs of Issuance Subaccount established by the Thirty-Second Supplemental Indenture in the Series 2022E Construction Account of the Construction Fund.

“Series 2022E Rebate Fund” shall mean the Series 2022E Rebate Fund established by the Thirty-Second Supplemental Indenture.

“Series 2022E Resolution” shall mean the Resolution adopted by the Authority’s Board on September 5, 2019 authorizing the Series 2022E Bonds.

“Series 2022E Subordinate Bonds Interest Subaccount” shall mean the Series 2022E Subordinate Bonds Interest Subaccount established by the Thirty-Second Supplemental Indenture in the Subordinate Interest Account in the Subordinate Bond Fund.

“Series 2022E Subordinate Bonds Principal Subaccount” shall mean the Series 2022E Subordinate Bonds Principal Subaccount established by the Thirty-Second Supplemental Indenture in the Subordinate Principal Account in the Subordinate Bond Fund.

“Service Contracts” shall mean any contracts or agreements for Contacted Services entered into by the Authority from time to time.

“Short-Term Obligations” shall mean Subordinate Debt issued pursuant to the Indenture, the payment of principal of which is scheduled to be payable within one year from the date of issuance and is contemplated to be refinanced either (a) through the issuance of additional Short-Term Obligations pursuant to a commercial paper or other similar program, or (b) through the issuance of Indebtedness.

“Sinking Fund Account” shall mean the Sinking Fund Account in the Bond Fund created in the Indenture.

“Soft Tender Index Rate Bonds” means Index Rate Bonds that are designated as such in the applicable Notice of Conversion for any Subsequent Index Rate Period.

“Soft Tender Long-Term Rate Bonds” means Long-Term Rate Bonds designated as such in the Certificate of Award for purposes of the Initial Period or a Notice of Conversion.

“Standard and Poor’s” shall mean Standard & Poor’s Global Ratings Services, New York, New York, or its successors.

“Subordinate Bond Fund” shall mean the Subordinate Bond Fund created in the Indenture.

“Subordinate Debt” shall mean the Series 2010A Bonds, the Series 2012A Bonds, the Series 2012C Bonds, the Series 2013A Bonds, the Series 2014B Bonds, the Series 2014C Bonds, the Series 2015A Bonds, the Series 2015B Bonds, the Series 2016A Bonds, and the Series 2016B Bonds, the Series A EMCP Notes, and the Series C CP Notes (taxable), and any other bonds, notes or other obligations issued in connection with the System (a) which are expected to be paid from Net Revenues and designated by the Authority as Subordinate Debt, and (b) which have pledged to their payment Net Revenues as a subordinate lien pledge after the pledge of Net Revenues to Senior Debt, including but not limited to any Debt Service Component and Remaining Component that the Authority is required, or has elected, to treat as Subordinate Debt, and the District General Obligation Bonds.

“Subordinate Debt Service Reserve Fund” shall mean the Subordinate Debt Service Reserve Fund created in the Indenture.

“Supplemental Indenture” shall mean any Supplemental Indenture supplementing or modifying the provisions of the Indenture entered into by the Authority and the Trustee pursuant to the Indenture.

“System” shall mean all plants, systems, facilities, equipment, real and personal property and tangible and intangible property, together with all future extensions, improvements, enlargements and additions thereto, and all replacements thereof, used, or to be used, in connection with the collection, transmission, treatment and disposal of wastewater and stormwater flow, and the supply, treatment, storage and distribution of water.

“Tender Indebtedness” shall mean any indebtedness a feature of which is an option or obligation on the part of the holders of such indebtedness to tender all or a portion of such indebtedness to a fiduciary

for purchase or redemption prior to the stated maturity date of such indebtedness, which may include Variable Rate Indebtedness with such a feature.

“Term Bonds” shall mean any Bonds stated to mature on a specified date and required to be redeemed in part prior to maturity according to a sinking fund schedule.

“Treasury Loans” shall mean those certain obligations of the Authority to make payments related to debt service on certain promissory notes from the Secretary of the Army to the United States Treasury set forth in the Water Sales Agreement and any future obligations of the Authority to the United States of America consistent therewith.

“Trustee” shall mean Wells Fargo Bank, National Association, as successor to Norwest Bank Minnesota, National Association, or its successors serving as such under the Indenture.

“Trustee’s Fees and Expenses” shall mean an initial acceptance fee and an annual administrative fee plus expenses in accordance with the fee schedule set forth in an agreement between the Trustee and the Authority, as the same may be renegotiated from time to time.

“Thirty-Second Supplemental Indenture” shall mean the Thirty-Second Supplemental Indenture of Trust, dated November __, 2019, by and between the Authority and the Trustee.

“Variable Rate Indebtedness” shall mean any indebtedness the interest rate on which is not established at the time of incurrence at a fixed or constant rate, provided that (a) the maximum interest rate on such indebtedness and the maximum rate payable to any liquidity provider with respect to such indebtedness shall be specified at the time of issuance of such indebtedness; (b) any liquidity facility of any liquidity provider shall cause such indebtedness to be rated by a Rating Agency in one of the two highest short-term rating categories of such Rating Agency; (c) any accelerated principal payments or any interest in excess of the bond interest rate payable to such liquidity provider shall be subordinate to the payment of debt service on Bonds, and (d) any two or more series of Bonds that are issued on the same date, the interest on which when such series are considered in the aggregate shall be a fixed or constant rate, shall not be considered Variable Rate Indebtedness.

“WASA Act” shall mean the Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996, as amended, D.C. Code Sections 34-2201.01 et seq.

“Water Sales Agreement” shall mean the Water Sales Agreement dated as of July 31, 1997, by and between the United States of America, acting through the Secretary of the Army, and the Authority.

“Weekly Rate” means the per annum interest rate for the Variable Rate Series 2022E Subordinate Bonds during a Weekly Interest Period determined on a weekly basis as provided in the Thirty-Second Supplemental Indenture of Trust.

“Weekly Rate Period” means the period during which Weekly Rates are in effect for the Variable Rate Series 2022E Subordinate Bonds.

SUMMARY OF INDENTURE

The following is a summary of certain provisions of the Indenture. It is not a complete recital of the terms of the Indenture. Unless otherwise noted, section numbers shown parenthetically refer to the Master Indenture; those preceded by the prefix “TSI” refer to the Thirty-Second Supplemental Indenture.

Security (Granting Clauses)

The Authority, to provide for the payment of each Series of Bonds and Subordinate Debt issued under the Indenture and to secure the performance and observance of all the covenants, agreements and conditions in such Bonds, Subordinate Debt, Other System Indebtedness or credit enhancement agreements, does grant a security interest in, assign, transfer, pledge and grant and convey unto the Trustee and its successors and assigns forever, for the benefit of the holders of the Indebtedness and credit enhancers, if any, until the applicable credit enhancement is no longer outstanding and no amounts are due under the related documents, the following property: (A) amounts on deposit from time to time, and any investment earnings thereon, in the Bond Fund and Debt Service Reserve Fund (with respect to related Senior Debt), in the Subordinate Bond Fund and the Subordinate Debt Service Reserve Fund (with respect to related Subordinate Debt) and any other funds and accounts created pursuant to the Indenture, including the earnings thereon, subject to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein; provided, however, that there expressly is excluded from any pledge, assignment, lien or security interest created by the Indenture any amount on deposit in the Operating Fund; (B) amounts constituting Net Revenues pledged pursuant to the Indenture; (C) any and all other property of any kind from time to time thereafter by delivery or by writing of any kind specifically conveyed, pledged, assigned or transferred, as and for additional security under the Indenture for the Bonds, by the Authority or by anyone on its behalf or with its written consent in favor of the Trustee, which is authorized to receive any and all such property at any and all times and to hold and apply the same subject to the terms of the Indenture; and (D) all right, title and interest of the Authority owned or hereafter acquired in and to proceeds from the sale of Bonds or Subordinate Debt issued under the Indenture required to be deposited in the Construction Account pursuant to the provisions of the Indenture (except as limited by the following provisos) and all right, title, and interest in and to the investments held in the Construction Account (except as limited by the following provisos) pursuant to the provisions of the Indenture; provided, however, that the Authority may establish one or more separate accounts in the Construction Account to be funded with proceeds of any particular Series of Bonds or Subordinate Debt issue, which accounts and the proceeds of the particular Series of Bonds deposited therein (together with all investments thereof and investment income earned thereon) may be pledged solely to the payment of one or more designated Series of Bonds or Subordinate Debt issue for any designated periods, or otherwise, all as permitted in the Indenture, including any Supplemental Indenture.

To have and to hold all properties pledged, assigned and conveyed by the Authority under the Indenture including all additional property which by the terms thereof has or may become subject to the encumbrance thereof, unto the Trustee and its successors in trust and its assigns forever, subject, however, to the rights reserved under the Indenture.

To have and to hold in trust upon the terms and trusts set forth in the Indenture for the equal and proportionate benefit, security and protection of all Holders from time to time of all Senior Debt issued thereunder or under other documents and secured by the Indenture, without privilege, priority or distinction as to lien or otherwise of any of the Senior Debt over any of the others except as otherwise provided in the Indenture, and on a basis subordinate and junior thereto, upon the terms and trusts therein set forth for the equal and proportionate benefit, security and protection of all Holders and related credit enhancers from time to time of all Subordinate Debt issued under the Indenture or under other documents and secured by

the Indenture, without privilege, priority or distinction as to lien or otherwise of any of the Subordinate Debt over any of the others, except as otherwise provided in the Indenture.

However, if the Authority shall pay fully and promptly when due all liabilities, obligations and sums at any time secured thereby or provide for the payment thereof in accordance with the Indenture, and shall promptly, faithfully and strictly keep, perform and observe, or cause to be kept, performed and observed, all of the covenants, warranties and agreements of the Indenture and related documents, then the Indenture shall be and become void and of no further force and effect; otherwise, the same shall remain in full force and effect, and upon the trusts and subject to the covenants and conditions set forth in the Indenture.

Purposes of Bonds (Section 301)

Bonds may be issued (a) to pay Costs, (b) to refund any Indebtedness secured by or payable from Net Revenues, including any Bonds, or (c) for a combination of such purposes.

Parity Senior Debt (Section 302)

The Indenture constitutes a continuing irrevocable pledge of Net Revenues to secure payment of the principal of, premium, if any, and interest on all Senior Debt that may from time to time be issued and Outstanding. Each Senior Debt issue shall be issued pursuant to a Supplemental Indenture or evidenced by other documents and shall be equally and ratably secured by the pledge of Net Revenues under the Indenture, without preference, priority or distinction; provided, however, that the moneys in any Series Debt Service Reserve Account shall only secure the applicable Series of Senior Debt, and provided further that any Senior Debt may have additional revenues or other security pledged to its payment. Nothing in the Indenture shall be construed, as (a) requiring that any Senior Debt bear interest at the same rate or in the same manner as any other Senior Debt, have the same, or an earlier or later, maturity, or be subject to mandatory, optional or extraordinary redemption prior to maturity on the same basis as any other Senior Debt, (b) prohibiting the Authority from entering into financial arrangements designed to assure that moneys will be available for the payment of certain Senior Debt at its maturity, or (c) prohibiting the Authority from pledging moneys or assets of the Authority other than those pledged in the Indenture for the benefit of certain Senior Debt.

Conditions for Issuing Bonds (Section 303)

The Indenture requires that certain documents be filed with the Trustee prior to the issuance and authentication of any Series of Bonds. These requirements include a requirement that if the Bonds are issued to pay Costs, except in the case of the initial Series of Bonds issued under the Indenture, the Authority provide the Trustee with (1) 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 (2) either (A) a certificate of the CEO and General Manager, the Chief Financial Officer or Authorized Representative of the Authority, stating that based on the Authority's financial records for any 12 consecutive months of the last 18 months prior to the issuance of such Bonds, the Authority would have been able to meet the Rate Covenant, taking into account (i) the maximum Annual Debt Service on the proposed additional Series of Bonds in the current or any future Fiscal Year, and (ii) the rates, fees and other charges which are in effect and any future changes therein as have been approved by the Board of Directors at the time of the delivery of the proposed additional Series of Bonds, or (B) 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 and that demonstrates that, on the basis of such projection, the Authority can comply with the Rate Covenant, taking into account those rates, fees and other charges which are in effect at the time of the delivery of the proposed

additional Series of Bonds and any future changes therein as have been approved by the Board of Directors of the Authority at the time of the delivery of the proposed additional Series of Bonds.

The Indenture also requires as a condition of issuance where Bonds are issued to refund any Indebtedness, the following: (1) evidence that the Authority has made provision as required by the Indenture for the payment or redemption of all indebtedness to be refunded; (2) either (A) a written determination by the CEO and General Manager, the Chief Financial Officer, or Authorized Representative of the Authority, or other evidence satisfactory to the Trustee that after the issuance of such Bonds and the provision for payment or redemption of all Indebtedness to be refunded, 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, including the Indebtedness to be refunded (if such Indebtedness was Senior Debt), and that the final maturity of Indebtedness being refunded has not been extended, or (B) a certificate of the CEO and General Manager, the Chief Financial Officer or Authorized Representative of the Authority, stating that based on the Authority's financial records for any 12 consecutive months of the last 18 months prior to the issuance of such Bonds, the Authority would have been able to meet the Rate Covenant, taking into account (i) the maximum Annual Debt Service on the proposed additional Series of Bonds in the current or any future Fiscal Year, but not the actual debt service on the Indebtedness to be refunded, and (ii) the rates, fees and other charges which are in effect and any future changes therein as have been approved by the Board of Directors 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 such projection does not include the actual debt service for any Indebtedness to be refunded, and demonstrates, on the basis of such projection, that the Authority can comply with the Rate Covenant, taking into account those rates, fees and other charges which are in effect at the time of the delivery of the proposed additional Series of Bonds and any future changes therein as have been approved by the Board of Directors at the time of the delivery of the proposed additional Series of Bonds.

Other System Indebtedness (Section 304)

The Authority may incur or refinance Other System Indebtedness provided that (1) the documents relating to the Other System Indebtedness acknowledge that such debt constitutes Other System Indebtedness under the Indenture and is subject to the applicable terms and conditions thereof, specify the amounts and due dates of Annual Debt Service with respect to the Other System Indebtedness, (2) certain requirements of the Indenture for issuing Bonds described under "Conditions for Issuing Bonds (Section 303)" have been met as if the Other System Indebtedness was an additional Series of Bonds, (3) 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 (4) 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 Authority shall fulfill its obligations under all contracts or agreements creating Other System Indebtedness as they may exist from time to time.

Parity Subordinate Debt (Section 305)

Notwithstanding anything in the Indenture to the contrary, the Authority may at any time issue additional Subordinate Debt on a parity with the Outstanding 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. Subordinate Debt may not be accelerated if any Senior Debt is outstanding.

Treatment of Direct Payments in Connection with Additional Indebtedness (Section 306)

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 (whether previously issued or proposed to be issued by the Authority) in connection with any proposed issuance of additional Subordinate Debt, 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.

Custody and Application of Bond Proceeds (Section 501; TSI Section 701)

The proceeds of Bonds which are issued to pay Costs of the System shall be held in trust by the Trustee and used solely to pay Costs of the System. The proceeds of Bonds which are issued to refund any Indebtedness secured by or payable from Net Revenues, shall be held by the Trustee, an escrow agent or other party, as specifically provided in the Supplemental Indenture related to such refunding. The Indenture establishes a Construction Fund, to be held by the Authority. Amounts on deposit in the Construction Fund shall be used to pay Costs. The Trustee established a Construction Account, for the benefit of the holders of the Bonds which shall be considered part of the Construction Fund. The Authority established an EPA Grant Account and a Payments in Aid of the Construction Account in the Construction Fund to be held by the Authority. The proceeds of a Series of Bonds shall be deposited in the related Series Construction Subaccount. Reimbursements from EPA Grants and similar payments shall be deposited in the EPA Grant Account, IMA Capital Payments and other payments in aid of construction shall be deposited in the Payments in Aid of Construction Account. The Authority may establish additional Accounts and subaccounts within the Construction Fund as may be provided in a Supplemental Indenture. The Thirty-Second Supplemental Indenture establishes the Series 2022E Construction Account in the Construction Fund, which shall be used for payment of the Costs of the System, and within the Series 2022E Construction Account, a Series 2022E Cost of Issuance Subaccount, which shall be used for the payment of costs of issuance of the Series 2022E Bonds. (TSI Section 701).

Deposits shall be made to the credit of the Construction Fund and any Accounts and subaccounts as provided in the applicable Supplemental Indenture. All earnings on moneys in each Account and subaccount shall be credited to such Account and subaccount. Payments from the Construction Account may be made upon submittal by the Chief Financial Officer of an appropriate requisition form to the Trustee on a bi-weekly, or less often basis. The Trustee shall pay the costs listed in the requisition within 2 days of receipt thereof. The Trustee shall retain copies of all such requisitions and shall pay the obligations set forth in the requisition out of money in the applicable Series Subaccount in the Construction Account. When all items of Costs have been paid or moneys have been reserved to pay all remaining unpaid Costs, the balance of any Bond proceeds remaining in excess of the amount to be reserved for payment of unpaid Costs shall be (a) transferred to the Bond Fund to be used solely to pay principal of and interest on the Series of Bonds which provided such proceeds to the extent approved by Bond Counsel, or (b) used to pay all or any portion of the Costs designated by the Authority and approved by Bond Counsel, but the balance of any Series 2022E Bond proceeds remaining in excess of the amount to be reserved for payment of unpaid Costs shall be deposited in the Bond Fund to be used solely to pay principal of and interest on the Series 2022E Bonds, to the extent approved by Bond Counsel.

Costs of the System (Section 502)

Costs shall mean any and all reasonable expenses related to the purposes or activities of the Authority including expenses for operating and maintenance activities; expenses for preconstruction and construction, acquisition, alteration, improvement, enlargement of furnishing, fixturing and equipping, reconstruction and rehabilitation of the water distribution and wastewater and stormwater collection, treatment, and disposal systems of the Authority, including without limitation, the purchase or lease expense for all lands, structures, real or personal property, rights, rights-of-way, roads, franchises, easements, and interest acquired or used for, or in connection with the Authority; the expenses of demolishing or removing buildings or structures on land acquired by the Authority, including the expenses incurred for acquiring any lands to which the buildings may be moved or located; the expenses incurred for all utility lines, structures or equipment charges, and interest on financial obligations incurred for a period as the Authority may reasonably determine to be necessary for the effective functioning of the water distribution and wastewater and stormwater collection, treatment, and disposal systems; provisions for reserves, enlargements, additions, and improvements; expenses incurred for architecture, engineering, energy efficiency technology, design and consulting, financial and legal services, letters of credit, bond insurance, debt service or debt service reserve insurance, surety bonds or similar credit enhancement instruments, plans, specification studies, surveys, and estimates of expenses and of revenues; expenses necessary or incident to determining the feasibility of improvements to the water distribution and wastewater and stormwater collection, treatment, and disposal systems, the financing of such improvements, including a proper allowance for contingencies, and the provision of reasonable initial working capital for operating the improved systems and expenses for obtaining potable water for distribution.

Rate Covenant (Section 601)

The Authority shall fix, charge and collect such rates, fees and other charges for the use of and the services furnished by the System and shall, from time to time and as often as shall appear necessary, revise such rates, fees and other charges so as to meet the following two independent requirements:

(1) Revenues, shall be sufficient in each Fiscal Year to pay (A) the actual Operating Expenses for such Fiscal Year, (B) the amount required to pay Annual Debt Service on Senior Debt in such Fiscal Year, (C) any amount necessary to be deposited in any Series Debt Service Reserve Account to restore the amount on deposit therein to the amount of the Series Debt Service Reserve Requirement, (D) the amount required to pay Annual Debt Service on Subordinate Debt in such Fiscal Year (including 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 payments in lieu of taxes in such Fiscal Year.

(2) Net Revenues shall be sufficient in each Fiscal Year to be at least equal to the sum of (A) 120% of the Annual Debt Service with respect to Senior Debt for such Fiscal Year, and (B) 100% of Annual Debt Service with respect to Subordinate Debt for such Fiscal Year.

From and after the date of the Twelfth Supplemental Indenture, for purposes of determining the Authority's compliance with the Rate Covenant (but not for the purposes of determining compliance with the Indenture's restrictions on the Authority's issuance of additional Senior Debt or additional Subordinate Debt), 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.

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 “Disposition of Revenues” 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. If the Authority promptly revises its rates, fees, charges, operations, services and procedures in conformity with the report and recommendations of the Qualified Independent Consultant and otherwise follows such recommendations to the extent permitted by law so that the Authority is expected to be, when its actions become fully effective, in compliance with the Rate Covenant, then any failure to meet the Rate Covenant will not constitute an Event of Default under the Indenture so long as no other Event of Default has occurred and is continuing.

Annual Budget (Section 602)

Before the beginning of each Fiscal Year, the Authority shall adopt a budget for the operation of the System for the ensuing Fiscal Year, which shall be called the Annual Budget. The Annual Budget shall be prepared in such manner as to show in reasonable detail (1) Revenues estimated to be received during such Fiscal Year, (2) Operating Expenses expected to be incurred during such Fiscal Year, (3) the amount of principal of, premium, if any, and interest on the Bonds that will become due during such Fiscal Year, (4) the amount of principal of, premium, if any, and interest on Other System Indebtedness that will become due during such Fiscal Year, (5) any amount necessary to be deposited in the Debt Service Reserve Fund to restore the amount on deposit in each Account therein to the amount of the applicable Series Debt Service Reserve Requirement, (6) any amount necessary to be deposited in the Operating Reserve Fund to restore the amount on deposit therein to the amount of the Operating Reserve Requirement, (7) any amount necessary to be deposited in the Renewal and Replacement Reserve Fund to restore the amount on deposit therein to the amount of the Renewal and Replacement Reserve Requirement, (8) the amount of principal of, premium, if any, and interest on the Subordinate Debt that will become due during such Fiscal Year, (9) any amount necessary to be deposited in the Subordinate Debt Service Reserve Fund to restore the amount on deposit therein to the amount of the Subordinate Debt Service Reserve Requirement, and (10) the amount of Net Revenues available during such Fiscal Year to meet the Rate Covenant. The Annual Budget shall be prepared in sufficient detail to show the amounts to be deposited in the various funds, Accounts and subaccounts created by or under the Indenture or funds and accounts otherwise required to be maintained on behalf of the System. The Authority may amend the Annual Budget at any time during the Fiscal Year. If for any reason an Annual Budget has not been adopted within the time required in the Indenture, the last previously adopted Annual Budget shall be deemed to provide for and regulate and control expenditures during such Fiscal Year until an Annual Budget for such Fiscal Year has been adopted. A copy of the Annual Budget and any amendments thereto shall be filed promptly with the Trustee.

Funds and Accounts (Section 603)

The Indenture establishes the following funds and Accounts to be held by the Authority or Trustee, as applicable: (a) Revenue Fund to be held by the Authority, subject to the lien of the Indenture (the Water and Sewer Authority Enterprise Fund created pursuant to Section 207 of the WASA Act, codified, as amended, at D.C. Code Section 34-2202.07, constitutes the Revenue Fund); (b) Operating Fund to be held by the Authority not subject to the lien of the Indenture (the Operating and Maintenance Account created

pursuant to Section 154 of Public Law 104-134, codified at D.C. Code Section 34-2202.41, constitutes the Operating Fund); (c) Bond Fund, in which there shall be established an Interest Account, a Principal Account and a Sinking Fund Account, and a separate subaccount in each such Account with respect to each Series of Bonds or Other System Indebtedness issued under the Indenture, as applicable, to be held by the Trustee, subject to the lien of the Indenture; (d) Debt Service Reserve Fund, in which there shall be established a Series Debt Service Reserve Account for each Series of Bonds or Other System Indebtedness issue which has a Series Debt Service Reserve Requirement, to be held by the Trustee, subject to the lien of the Indenture; (e) Operating Reserve Fund to be held by the Authority, subject to the lien of the Indenture; (f) Renewal and Replacement Reserve Fund to be held by the Authority, subject to the lien of the Indenture; (g) Subordinate Bond Fund to be held by the Trustee, subject to the lien of the Indenture; (h) Subordinate Debt Service Reserve Fund to be held by the Trustee, subject to the lien of the Indenture; (i) Rate Stabilization Fund to be held by the Authority, subject to the lien of the Indenture; and (j) System Fund to be held by the Authority, subject to the Lien of the Indenture.

Disposition of Revenues (Section 604)

All Revenues 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 the Authority held funds to the Trustee, and the Trustee shall hold such moneys in trust for the beneficiaries under the Indenture. From and after the occurrence of such Event of Default, the Authority shall deliver all Revenues to the Trustee as and when received. Prior to any such Event of Default, throughout the month, but no later than the last Business Day of 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 (except that no distinction or preference shall exist in the use in an amount sufficient to make the following deposits of Net Revenues for payment into the Interest Account, the Principal Account or the Sinking Fund Account of the Bond Fund, such accounts being on a parity with each other as to payment from Net Revenues):

(a) To the Bond Fund:

(1) to the subaccounts established for each Series of Bonds or Other System Indebtedness in the Interest Account, the amounts, if any, set forth in the applicable Supplemental Indenture with respect to each Series of Bonds or Other System Indebtedness; provided, however, that if such Other System Indebtedness is evidenced by documents other than a Supplemental Indenture, to the related interest accounts set forth therein, as applicable; and such deposits shall be adjusted to give credit for any other available money then in such interest account or subaccount, or otherwise available and designated to be used for such purpose. Moneys in the Interest Account shall be used to pay interest required to be paid on any interest payment date related to such Series of Bonds or Other System Indebtedness, as applicable.

(2) to the subaccounts established for each Series of Bonds or Other System Indebtedness in the Principal Account and Sinking Fund Account, the amounts, if any, set forth in the applicable Supplemental Indentures with respect to each Series of Bonds or Other System Indebtedness; provided, however, that if such Other System Indebtedness is evidenced by documents other than a Supplemental Indenture, to the related principal account and sinking fund account set forth therein, as applicable; and such deposits shall be adjusted to give credit for any other available money then in the principal or sinking fund account or subaccount or otherwise available and designated to be used for such purpose. Moneys in the Principal Account shall be used to pay principal required to be paid on any principal payment date related to such Series of Bonds or Other System Indebtedness, as applicable. Moneys in the Sinking Fund Account shall be used to pay the amount required for mandatory sinking fund redemption on the applicable redemption date related to such Series of Bonds or Other System Indebtedness, as applicable,

(b) 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; and to the extent applicable, amounts necessary to restore the amount on deposit in the debt service reserve fund related to Other System. Indebtedness to the amounts required to be on deposit therein, and such amounts shall be transferred to such fund.

(c) To the Operating Reserve Fund, the amounts, if any, necessary to restore the amounts on deposit therein to the Operating Reserve Requirement. Such amounts shall be funded within 24 months of withdrawal by depositing in such fund 1/24 of the Operating Reserve Requirement on the last Business Day of each month after such withdrawal, if necessary. Moneys 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 moneys on deposit in the Bond Fund are insufficient to make the required interest and principal payments, moneys in the Operating Reserve Fund shall be used prior to any withdrawal from the Debt Service Reserve Fund, to satisfy any such deficiencies.

(d) To the Renewal and Replacement Reserve Fund, an amount equal to the Renewal and Replacement Reserve Requirement. Such amounts shall be funded within 24 months of the applicable Closing Date to the extent not already deposited by depositing 1/24 of the Renewal and Replacement Reserve Requirement on the last Business Day of each month in such fund. In addition, to the extent that there has been a withdrawal from such fund, the Trustee shall deposit Net Revenues to the fund, in the amounts necessary to make the amounts on the 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. Moneys 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 moneys on deposit in the Bond Fund and the Operating Reserve Fund are insufficient to make the required interest and principal payments, moneys 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.

(e) To the Subordinate Bond Fund, the amount equal to the deposits to such funds and accounts required by the related Supplemental Indenture or other documents evidencing such debt. To the extent that Subordinate Debt is issued pursuant to Subordinate Debt documents, applicable amounts shall be transferred to the respective Subordinate Debt trustee.

(f) 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 debt service reserve requirement or to reimburse the provider of any Qualified Reserve Credit Facility for amounts drawn thereunder and to pay related costs. To the extent that the Subordinate Debt is issued pursuant to Subordinate Debt Documents, applicable amounts shall be transferred to the respective Subordinate Debt trustee.

(g) To the System Fund, any moneys remaining in the Revenue Fund after all deposits and transfers required by subsections (a) through (f) of Section 604 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 were required or are required be used to make the following payments:

(1) on each May 15 and quarterly thereafter, to the District to make the payment in lieu of taxes required by the District MOU relating to the PILOT;

(2) on September 1, 1998, an amount retained by the Authority in the System Fund necessary to satisfy the Cash Reserve Requirement;

(3) on each September 1, commencing September 1, 1999: (a) an amount to the District to make those certain principal and interest prepayments related to the District General Obligation Bonds pursuant to the District MOU relating to the Payment of General Obligation Debt; and (b) an amount retained by the Authority in the System Fund necessary to satisfy the Cash Reserve Requirement; and

(4) at any time to the Rate Stabilization Fund, the amount that the CEO and General Manager may determine, in his discretion, to transfer to the Rate Stabilization Fund.

With respect to prepayments made pursuant to section (g)(3)(a) above, if the Authority does not have Net Revenues sufficient to make such payment on September 1 of such fiscal year, the Authority must make such payment no later than November 1 of such fiscal year. Failure to make such payment prior to November 1 shall not constitute an Event of Default.

The Authority shall provide the Trustee with a monthly certificate which certifies that the transfers required by subsections (c), (d) and (g) have been made and sets forth the respective balances of such funds. If the Authority fails to make the transfers required by subsections (a) through (g) the Trustee shall give notice of such failure to the Authority within 10 days of such failure. Notwithstanding anything in the Indenture to the contrary, at any time that the Authority is required to make transfers pursuant to subsections (a) through (g), and there are insufficient Net Revenues to make all required transfers pursuant to such subsections, the Authority shall make the transfers in the order set forth above first from Net Revenues, then from any other legally available monies. In the event the balance on deposit in the Principal Account, Sinking Fund Account or the Interest Account is insufficient for the purposes thereof, the Authority shall transfer to the Trustee for deposit in such Accounts such amounts as may be necessary therefor first from the Operating Reserve Fund, second from the Renewal and Replacement Fund, and then from the applicable Series Debt Service Reserve Account pursuant to the section entitled "Debt Service Reserve Fund (Section 606)". The Trustee shall provide for a mandatory sinking fund redemption of any Term Bonds in accordance with the schedules set forth in the Supplemental Indenture for such Bonds; provided, however, that on or before the 70th day next preceding any such sinking fund payment date, the Authority may: (1) deliver to the Trustee for cancellation Term Bonds of the maturity required to be redeemed on such sinking fund payment date in any aggregate principal amount desired; or (2) instruct the Trustee to apply a credit against the Authority's next sinking fund redemption obligation for any such Term Bonds that previously have been redeemed (other than through the operation of the sinking fund) and canceled but not theretofore applied as a credit against any sinking fund redemption obligation. Upon the occurrence of any of the events described in the subsections (1) or (2) above, the Trustee shall credit against the Authority's sinking fund redemption obligation on the next sinking fund payment date the amount of such Term Bonds so delivered or previously redeemed. Any principal amount of such Term Bonds in excess of the principal amount required to be redeemed on such sinking fund payment date shall be similarly credited in such order as may be determined by the Authority against future payments to the Sinking Fund Account and shall similarly reduce the principal amount of the Term Bonds of the applicable Series to be redeemed on the next sinking fund payment date. Within seven days of receipt of such Term Bonds or instructions to apply as a credit, any amounts remaining in the Sinking Fund Account in excess of the amount required to fulfill the remaining required sinking fund redemption obligation on the next sinking fund payment date shall be used in such manner as determined at the direction of the Authority. In the event the amount on deposit in the Interest Account on any interest payment date shall exceed the amount required to pay interest on the Senior Debt on the next interest payment date, the Authority shall, if the amount on deposit in any Series Debt Service Reserve Account is less than the applicable Series Debt Service Reserve Requirement, instruct the Trustee to transfer such excess to any Series Debt Service Reserve Account to the extent of such deficiency, and otherwise retain any remaining excess in the Interest Account or instruct the Trustee to transfer any remaining excess to the related Principal Account to be credited against subsequent required deposits thereto, as determined by the Authority.

If the amount on deposit in the Principal Account or Sinking Fund Account on any principal or mandatory redemption payment date exceeds the amount required on such date to pay Bonds at maturity or to redeem Term Bonds pursuant to mandatory sinking fund requirements, the Authority shall, if the amount on deposit in any Series Debt Service Reserve Account is less than the applicable Series Debt Service Reserve Requirement, instruct the Trustee to transfer such excess to the Series Debt Service Reserve Account to the extent of such deficiency, and otherwise retain such excess in the Principal Account or instruct the Trustee to transfer such excess to the Interest Account to be credited against subsequent required deposits thereto, as determined by the Authority.

With respect to the Direct Payments 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.

Rate Stabilization Fund (Section 605)

The Rate Stabilization Fund authorized by the Indenture shall be held by the Authority in an Account separate and apart from all other funds and Accounts of the Authority and payments therefrom shall be made as provided in the Indenture. Moneys may be transferred by the Authority to the Rate Stabilization Fund from the System Fund as provided in the section captioned "Disposition of Revenues (Section 604)" as determined by the Authority. At any time the Authority may transfer from the Rate Stabilization Fund to the Revenue Fund the amount determined by the Authority to be transferred from the Rate Stabilization Fund.

Debt Service Reserve Fund (Section 606)

Each Supplemental Indenture under which a Series of Bonds is issued shall establish an Account in the Debt Service Reserve Fund related to such Series of Bonds that shall be funded pursuant to the terms of a Supplemental Indenture. The Series Debt Service Reserve Requirement shall be deposited in the Account related to such Series. Amounts in each Account in the Debt Service Reserve Fund shall be used to pay debt service on the related Series of Bonds on the date such debt service is due when insufficient funds for that purpose are available in the Bond Fund; provided, however, that all amounts in an Account in the Debt Service Reserve Fund shall be used, together with other amounts available for such purpose under the Indenture, to provide for payment of the related Series of Bonds when the aggregate of such amounts is sufficient for such purpose. Amounts in each Account of the Debt Service Reserve Fund shall be pledged to Holders of Bonds of the related Series. The Debt Service Reserve Fund has not been pledged as security for the payment of any Subordinate Debt.

In lieu of or in addition to cash or investments, at any time the Authority may cause to be deposited to the credit of any Series Debt Service Reserve Account any form of credit facility, including a surety bond, in the amount of all or a portion of the Series Debt Service Reserve Requirement, irrevocably payable to the Trustee as beneficiary for the Holders of the respective Series of Bonds, provided that the Trustee has received evidence satisfactory to it that (a) the provider of the credit facility has a credit rating in one of the two highest credit rating categories by two Rating Agencies, (b) the obligation of the Authority to pay the fees of and to reimburse the provider of the credit facility is subordinate to its obligation to pay debt service on the respective Series of Bonds, (c) the term of the credit facility is at least 36 months, (d) the only condition to a drawing under the credit facility is insufficient amounts in the applicable funds and Accounts held by the Trustee with respect to such Series of Bonds when needed to pay debt service on such Series or the expiration of the credit facility, and (e) the provider of the credit facility shall notify the

Authority and the Trustee at least 24 months prior to the expiration of the credit facility. If (1) the Authority receives such expiration notice and the provider of such credit facility does not extend its expiration date, (2) the Authority receives notice of the termination of the credit facility, or (3) the Authority receives notice that the provider of such credit facility no longer has a credit rating in one of the two highest credit rating categories by two Rating Agencies, the Authority immediately shall (A) provide a substitute credit facility that meets the requirements set forth in the foregoing sentences, (B) deposit the Series Debt Service Reserve Requirement to the respective Series Debt Service Reserve Account (i) in equal monthly installments over the next succeeding 24 months in the case of receipt of an expiration notice, (ii) prior to the termination date in the case of receipt of a termination notice, or (iii) immediately in the case of such reduction in credit rating, or (C) instruct the Trustee to draw on such credit facility in the amount of the Series Debt Service Reserve Requirement (i) 12 months prior to expiration of the credit facility in the case of receipt of an expiration notice, (ii) prior to the termination date in the case of receipt of a termination notice, or (iii) immediately in the case of such reduction in credit rating and deposit the amount drawn to the Series Debt Service Reserve Account.

If a disbursement is made pursuant to any credit facility, the Authority shall either (a) reinstate the maximum limits of such credit facility, or (b) deposit to the credit of the applicable Series Debt Service Reserve Account moneys in the amount of the disbursement made under such credit facility from available Net Revenues. To the extent such moneys are still insufficient, then the Authority shall transfer to the Trustee from any legally available moneys the amount of such deficiency as soon as practicable and in any event within 24 months by depositing one-twenty-fourth of the required amount each month.

Amounts, if any, released from any Series Debt Service Reserve Account, upon deposit to the credit of such Account of a credit facility, upon designation by an Authorized Representative of the Authority and accompanied by an Opinion of Bond Counsel that such use will not adversely affect the exclusion from gross income of interest on the respective Series of Bonds, shall be transferred (a) to the subaccount of the Principal Account with respect to such Series of Bonds and used to pay principal of or to redeem such Bonds, or (b) to the Authority to be used to pay all or any portion of the Costs designated by the Authority and approved by Bond Counsel.

On or within five days after each Reserve Determination Date, the Trustee shall determine if the balance on deposit in each Series Debt Service Reserve Account was, as of the Reserve Determination Date, at least equal to the applicable Series Debt Service Reserve Requirement. In making such determination, any obligations in the Series Debt Service Reserve Account shall be valued in accordance with the Indenture. In the event the amount on deposit in a Series Debt Service Reserve Account exceeds the applicable Series Debt Service Reserve Requirement, the Trustee shall (a) transfer such excess to the Bond Fund to be deposited in the related Series subaccount in the Interest Account and the related Series subaccount in the Principal Account to the extent amounts in such subaccounts are less than the amounts required to be paid on the next interest payment date and principal payment date, respectively, (b) thereafter transfer such excess to the Bond Fund to be deposited, as directed by an Authorized Representative of the Authority, in the Interest Account or the Principal Account to the extent amounts in such accounts are less than the amounts required to be paid on the next interest payment date and principal payment date, respectively, and (c) transfer such excess to the Authority to be used to pay all or any portion of Costs designated by the Authority and approved by Bond Counsel; provided, however, that if an Authorized Representative of the Authority calls for a Reserve Determination Date in connection with the refunding and/or defeasance of a Series of Bonds, then the Trustee is authorized to take such refunding and/or defeasance into account in valuing the Series Debt Service Reserve Account securing such Series of Bonds and is further authorized to apply the amount of any surplus arising from such valuation to reduce the amount of the refunding bonds and/or to provide for the defeasance of the Series of Bonds in such manner as the Authorized Representative of the Authority may direct.

Payments in Aid of Construction (Section 607)

The Authority shall use any payments made to the Authority by any persons as payment for constructing water, wastewater or stormwater facilities at the request of such persons, whether such payments are made prior to or after such construction, only to pay the cost of such construction. After completion of such construction, the Authority may use any moneys remaining after such construction is completed to pay all or any portion of Costs designated by the Authority and approved by Bond Counsel.

Other Funds and Accounts (Section 608)

The Authority may establish in each Supplemental Indenture such other funds and Accounts within funds as the Authority may determine to be desirable.

Pledge of Net Revenues and Certain Funds and Accounts (Section 609; TSI Section 801)

Net Revenues are pledged equally and ratably to the payment of principal of and interest on all Senior Debt, subject only to the right of the Authority to make application thereof to other purposes as provided in the Indenture. All funds created under the Indenture other than the Operating Fund shall be trust funds and are pledged (except as provided in the next sentence and as described in the next paragraph hereof) equally and ratably to the payment of the principal of and interest on all Senior Debt, subject only to the right of the Authority to make application thereof, or to direct the Trustee to make application thereof, to other purposes as provided in the Indenture. The lien and trust created under the Indenture are for the benefit of the Holders of Senior Debt and for their additional security until all the Senior Debt has been paid; provided, however, that the moneys in each Series Debt Service Reserve Account and each Series Construction Account or subaccount shall only secure the applicable Series of Bonds that provided such moneys, and moneys in any account of the Bond Fund relating to a particular Senior Debt shall only secure such Senior Debt. Notwithstanding the foregoing and anything else in the Indenture to the contrary, pursuant to the terms of the Water Sales Agreement, to the extent that the United States of America, acting through the Secretary of the Army, requires that the Authority establish a special fund consisting of separately identifiable fees, charges, rents and rates (the "Special Revenues") assessed by the Authority on its retail customers after the effective date of the Indenture in order to pay for the principal and interest due on the Treasury Loans, the Department of the Treasury shall have a security interest in such Special Revenues only, and the Treasury Loans shall no longer be secured by the remaining Net Revenues, nor be considered Indebtedness for the purposes of the Indenture. The Treasury Loan holder shall have an interest senior to the interest of holders of Indebtedness in such Special Revenues. All further terms and conditions of such Special Fund shall be set forth in a Supplemental Indenture related thereto.

The Series 2022E Bonds shall be secured as Subordinate Debt under the Indenture, including, without limitation, by a pledge of: (i) Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures Subordinate Debt, including, without limitation, any other Subordinate Debt that the Authority may issue in the future, without preference, priority or distinction of any Series 2022E Bond over any other Series 2022E Bond or of any Subordinate Debt over any other Subordinate Debt, as provided in the Indenture; and (ii) the moneys and Permitted Investments in the Subordinate Bond Fund on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, any other Subordinate Debt that the Authority may issue in the future, without preference, priority or distinction of any Series 2022E Bond over any other Series 2022E Bond or of any Subordinate Debt over any other Subordinate Debt, as provided in the Indenture. (TSI Section 801).

Payment of Indebtedness; Limited Obligations (Section 801)

The Authority shall promptly pay or cause to be paid when due the principal of (whether at maturity, by acceleration, call for redemption or otherwise), premium, if any, and interest on the Indebtedness at the places, on the dates and in the manner provided in the Indenture and in the Indebtedness according to the true intent and meaning thereof; provided, however, that such obligations are not general obligations of the Authority, but are limited obligations payable solely from Net Revenues, except to the extent payable from the proceeds of Indebtedness, the income, if any, derived from the investment thereof, certain reserves, proceeds of credit enhancement, income from investments pursuant to the Indenture or proceeds of Insurance, which Net Revenues and other moneys are specifically pledged to such purposes in the manner and to the extent provided in the Indenture. The Series 2022E Bonds are special and limited obligations of the District. The Series 2022E Bonds shall be without recourse to the District. The Series 2022E Bonds shall not be general obligations of the District, shall not be a pledge of or involve the faith and credit or the taxing power of the District, and shall not constitute lending of the public credit for private undertakings.

Limitations on Indebtedness (Section 802)

The Authority shall not issue any bonds, notes or other obligations that shall be secured by a pledge of Net Revenues (a) senior to the pledge of Net Revenues securing the Senior Debt, (b) except in compliance with the Indenture, on a parity with the pledge of Net Revenues securing the Senior Debt, or (c) except in compliance with the section captioned "Subordinate Debt (Section 305)", subordinate to the pledge of Net Revenues securing the Senior Debt. The Authority shall not issue Bonds, Other System Indebtedness or Subordinate Debt unless the Authority complies with the Indenture, including those provisions described in "Conditions for Issuing Bonds (Section 303)," "System Indebtedness (Section 304)" and "Subordinate Debt (Section 305)," as applicable.

Covenants and Representations of the Authority (Section 803)

The Authority shall faithfully observe and perform all covenants, conditions and agreements on its part contained in the Indenture, in every issue of Indebtedness issued thereunder and in all proceedings of the Authority pertaining thereto. The Authority represents that it is duly authorized under the WASA Act to issue the Indebtedness, to execute the Indenture, and to pledge Net Revenues in the manner and to the extent set forth in the Indenture. The Authority covenants that it will take all action necessary for issuance of the Indebtedness and the execution of the Indenture, and that upon issuance the Indebtedness will be valid and enforceable obligations of the Authority according to the import thereof.

Covenants with Credit Banks, Insurers, etc. (Section 804)

The Authority may make such covenants and agreements in a Supplemental Indenture as it may determine to be appropriate with any Insurer, credit bank or other financial institution that agrees to insure or to provide credit or liquidity support to enhance the security or the value of any Indebtedness. Such covenants and agreements may be set forth in the applicable Supplemental Indenture and shall be binding on the Authority and all the holders of Indebtedness the same as if such covenants were set forth in full in the Indenture.

Operation and Maintenance (Section 805)

The Authority shall establish and enforce reasonable rules and regulations governing the use of and the services furnished by the System, shall maintain and operate the System in an efficient and economical manner, shall maintain the same in good repair and sound operating condition and shall make all necessary repairs, replacements and renewals. All compensation, salaries, fees and wages paid by the Authority in

connection with the operation and maintenance of the System shall be reasonable. The Authority shall observe and perform all of the terms and conditions contained in the WASA Act and the Water Sales Agreement and shall comply with all valid acts, rules, regulations, orders and directions of any legislative, executive, administrative or judicial body applicable to the System or the Authority.

Free Service, Competing Service, Billing and Enforcement of Charges (Section 806)

The Authority shall not permit connections to or use of the System or provide any services of the System without making a charge therefor in accordance with the Authority's schedule of rates, fees and charges for the System other than those connections, use or services already in existence; provided, however, the Authority may accept proffers and other forms of payment in lieu of cash payments that the Authority deems are in its best interest to accept, provided that such proffers do not cause a violation of the Rate Covenant. The Authority shall not provide, grant any franchise to provide, or give consent for anyone else to provide any services which would compete with the System unless the Authority determines that such franchise or provision of services would provide services that the Authority has determined are not in its best interest to provide and would not materially impair the interests of the holders of Indebtedness.

The Authority shall bill customers for the services of the System no less frequently than quarterly. If any rates, fees or other charges for the use of or for the services furnished by the System shall not be paid within 60 days after the same shall become due and payable, or within such shorter time as may be determined by the Authority, the Authority shall at the expiration of such period, to the extent permitted by applicable laws and regulations, disconnect the premises from the System or otherwise suspend service to such premises until such delinquent rates, fees or other charges and any interest, penalties or charges for reconnection of service to such delinquent customer shall have been paid in accordance with the policies of the Authority, or a payment plan with respect to such amounts has become effective. The Authority shall take all such action as may be necessary to perfect liens upon real estate for the amount of any unpaid rates, fees or other charges described in Section 806 of the Indenture or any unpaid connection charges or other charges so that such liens will be binding upon subsequent bona fide purchasers for valuable consideration without actual notice thereof.

Sale or Encumbrance of System (Section 807)

Neither the System nor any integral part thereof shall be leased, sold, mortgaged or otherwise disposed of without an Independent Consulting Engineer's certification that such disposition will not have a negative impact on the overall viability of the System unless the proceeds of such disposition, together with any other legally available moneys, are sufficient to pay the principal of, premium, if any, and interest on all Indebtedness then Outstanding and the proceeds are used for such purpose; provided, that the Authority may from time to time sell, exchange or otherwise dispose of any equipment, motor vehicles, machinery, fixtures, apparatus, tools, instruments or other movable property if it determines that such articles are no longer needed or are no longer useful in connection with the System, and the proceeds thereof may be used for any lawful purpose determined by the Authority. The Authority shall not create or suffer to be created any lien or charge upon the System or any part thereof or any lien or charge upon Net Revenues and other moneys pledged herein ranking equally with, prior to, or subordinate to the lien and charge of the Indebtedness, except as provided in the Indenture. Notwithstanding anything in the Indenture to the contrary, the Authority may acquire items of personal property constituting part of the System under lease purchase agreements or similar financing arrangements entered into in the ordinary course of business which may be subject to purchase money security interests or other liens in an aggregate amount not to exceed five percent (5%) of the net amount of plant, property and equipment.

Notwithstanding the provisions of the preceding paragraph, the Authority may sell, transfer or otherwise dispose of all or substantially all of the System for purposes of consolidating the System with or

merging the System into one or more regional water, wastewater or stormwater systems of which the Authority is a participating member jurisdiction if: (1) the successor entity assumes in writing all of the Indebtedness then Outstanding, (2) the successor entity covenants in writing to comply with the Rate Covenant, (3) the Authority obtains an opinion of Bond Counsel, subject to the customary exceptions and qualifications, substantially to the effect that the assumption by the successor entity of all of the Indebtedness then Outstanding shall not have an adverse effect on the tax-exempt status of the interest on any such Indebtedness the interest on which was excludable from gross income for purposes of Federal income taxation when issued, and (4) the ratings on the Indebtedness then Outstanding will not adversely be affected by such assumption.

Notwithstanding the provisions of the preceding paragraph, the Authority may lease or sell the Blue Plains Wastewater Treatment Plant if: (1) the lessor [sic] or purchaser entity assumes in writing all of the Indebtedness then Outstanding relating to the plant, (2) the successor entity covenants in writing to comply with the Rate Covenant, as applicable, (3) the Authority obtains an opinion of Bond Counsel, subject to the customary exceptions and qualifications, substantially to the effect that the assumption by the lessor [sic] or purchaser entity of all of the Indebtedness then Outstanding shall not have an adverse effect on the tax-exempt status of the interest on any such Indebtedness the interest on which was excludable from gross income for purposes of Federal income taxation when issued, and (4) the ratings on such Indebtedness then Outstanding will not adversely be affected by such assumption.

Insurance (Section 808)

The Authority shall continuously maintain insurance with recognized responsible commercial insurance companies against such risks and in such amounts as are customary for public bodies owning and operating similar systems, including (a) insurance against loss or damage to the System, (b) public liability insurance against liability for bodily injury, including death resulting therefrom, and for damage to property, including loss of use thereof, arising out of the ownership or operation of the System, and (c) workers' compensation insurance with respect to the System. In lieu of insurance written by commercial insurance companies, the Authority may maintain a program of self-insurance or participate in group risk financing programs, including sponsored insurance programs, risk pools, risk retention groups, purchasing groups and captive insurance companies, and in state or Federal insurance programs; provided, however, that the Authority shall obtain and maintain on file a tri-annual favorable written opinion of a Qualified Independent Consultant that such alternative is reasonably acceptable with respect to the coverages under all the circumstances.

Damage, Destruction, Condemnation and Loss of Title (Section 809)

If all or any part of the System is destroyed or damaged by fire or other casualty, condemned or lost by failure of title, the Authority shall restore promptly the property destroyed or damaged to substantially the same condition as before such destruction, damage, condemnation or loss of title with such alterations and additions as the Authority may determine and which will not impair the capacity or character of the System for the purpose for which it is then being used or is intended to be used. The Authority shall apply so much as may be necessary of such Net Proceeds received on account of any such destruction, damage, condemnation or loss of title to payment of the cost of such restoration, either on completion or as the work progresses. If such Net Proceeds are not sufficient to pay in full the cost of such restoration, the Authority shall pay so much of the cost as may be in excess of such Net Proceeds from any legally available moneys. Any balance of such Net Proceeds remaining after payment of the cost of such restoration shall be deposited in the Bond Fund.

Records and Accounts; Inspections and Reports (Section 810)

The Authority shall keep proper books of records and accounts, separate from any of its other records and accounts, showing complete and correct entries of all transactions relating to the System, and the Trustee shall have the right at all reasonable times to inspect the System and all records, accounts and data relating thereto. The Authority shall also cause a certified audit of its records and accounts to be made in accordance with generally accepted accounting principles by an independent certified public accountant at the end of each Fiscal Year which shall reflect in reasonable detail the financial condition and results of operation of the System and whether the Authority has complied with the Rate Covenant and to deliver such report to the Trustee. The Authority shall cause an Independent Consulting Engineer at least once every five years to inspect the System and make a written report thereof which shall include such Independent Engineer's findings and recommendations as to the maintenance of the System and the construction of additions, extensions and improvements to the System and capital replacements thereof. Such report shall be completed in sufficient time so that the Authority may take into account any recommendations thereof in preparing its next Annual Budget.

Capital Budget (Section 811)

The Authority shall annually adopt a multiyear financial plan for capital expenses encompassing at least the forthcoming five fiscal years.

Service Contracts (Section 812)

The Authority may enter into Service Contracts for the benefit of the System, provided that the Authority specifies in writing the items payable as the Debt Service Component, Operating Component or Remaining Component of the Cost of Contracted Services and provided, further that the Authority shall not enter into any Service Contracts that would create Debt Service Components that constitute Other System Indebtedness unless the Authority satisfies the test set forth in the section entitled "Conditions for Issuing Bonds (Section 303)" for Bonds issued to pay Costs, except in the case of the initial Series of Bonds. The Authority shall faithfully fulfill all lawful requirements of all Service Contracts and shall require all other parties thereto to fulfill their lawful obligations thereunder. The Authority shall determine in writing on or before the effective date of any Service Contract the amounts and due dates of any Debt Service Component and the interest and principal portions of such components.

Events of Default – General (Section 901)

Each of the following events shall be an Event of Default:

(a) Default in the due and punctual payment of the principal of, premium, if any, on any Bond (whether at maturity, call for redemption or otherwise);

(b) Default in the due and punctual payment of the interest on any Bond;

(c) Failure by the Authority to observe the covenant set forth in Section 604(g)(3)(a) of the section entitled "Disposition of Revenues";

(d) Subject to the remedial provisions of the Rate Covenant, failure of the Authority to observe and perform any of its other covenants, conditions or agreements under the Indenture or in the Bonds for a period of 60 days after written notice either from the Trustee or Holders of not less than 25% in aggregate principal amount of Bonds then Outstanding (unless the Trustee agrees in writing to an extension of such time prior to its expiration), specifying such failure and requesting that it be remedied, or in the case of any

such default that cannot with due diligence be cured within such 60 day period, failure of the Authority to proceed promptly to cure the same and thereafter prosecute the curing of such default with due diligence within 60 days thereafter; provided, however, any such cure period shall not exceed an aggregate of 120 days without the prior written consent of Financial Security Assurance, Inc., as long as any of the Authority's \$266,120,000 Public Utility Revenue Bonds, Series 1998 are Outstanding;

(e) The Authority shall fail to make any required payment with respect to any Other System Indebtedness, and any period of grace with respect thereto shall have expired, or an event of default as defined in any mortgage, indenture, or instrument under which there may be issued, or by which there may be secured or evidenced any Other System Indebtedness, shall occur, which event of default shall not have been waived by the holder of such mortgage, indenture or instrument provided, however, that such default shall not constitute an Event of Default within the meaning of Section 901 of the Indenture if within 30 days, or within the time allowed for service of a responsive pleading if any proceeding to enforce payment of the Other System Indebtedness is commenced, the Authority in good faith shall commence proceedings to contest the obligation to pay or the existence of such Other System Indebtedness;

(f) (1) commencement by the Authority of a voluntary case under the Federal bankruptcy laws, as now or hereafter constituted, or any other applicable Federal or state bankruptcy, insolvency or similar law, (2) consent by the Authority to the appointment of a receiver, liquidator, assignee, trustee, custodian, sequestrator or other similar official for the Authority, the System or any substantial part of the Authority's property, or to the taking possession by any such official of the System or any substantial part of the Authority's property, (3) making by the Authority of any assignment for the benefit of creditors, or (4) taking corporate action by the Authority in furtherance of any of the foregoing

(g) The entry of any (1) decree or order for relief by a court having jurisdiction over the Authority or its property in an involuntary case under the Federal bankruptcy laws, as now or hereafter constituted, or any other applicable Federal or state bankruptcy, insolvency or other law, (2) appointment of a receiver, liquidator, assignee, trustee, custodian, sequestrator or similar official for the Authority, the System or any substantial part of the Authority's property, or (3) order for the termination or liquidation of the Authority or its affairs; or

(h) Failure of the Authority within 60 days after the commencement of any proceedings against it under the Federal bankruptcy laws, or any other applicable Federal or state bankruptcy, insolvency or similar law, to have such proceedings dismissed or stayed.

Notice to Holders of Senior Debt of Certain Default (Section 902)

If the Trustee is required to draw moneys from the Debt Service Reserve Fund to pay principal or interest on the Bonds and the Authority fails to begin replenishing the Debt Service Reserve Fund within 60 days in accordance with the replenishment requirements of the Indenture or fails to make any deposit required by the Indenture, then the Trustee shall send a notice to the Holders of Senior Debt that have related Debt Service Reserve Accounts, notifying them of the Authority's failure to replenish such draws.

Acceleration of Bonds (Section 903)

Upon the occurrence and continuation of an Event of Default, the Trustee may (and if requested by the holders of not less than 25% in aggregate principal amount of Bonds then Outstanding shall) by written notice to the Authority, declare the entire unpaid principal of the Bonds due and payable and, thereupon, the entire unpaid principal of the Bonds shall forthwith become due and payable. Upon any such declaration the Authority shall forthwith pay to the holders of the Bonds the entire unpaid principal of, premium, if any, and accrued interest on the Bonds, but only from Net Revenues and other moneys specifically pledged

in the Indenture for payments of Bondholders. If at any time after such a declaration and before the entry of a final judgment or decree in any suit, action or proceeding instituted on account of such default or before the completion of the enforcement of any other remedy under the Indenture, the principal of all Bonds that have matured or been called for redemption pursuant to any sinking fund provision and all arrears of interest have been paid and any other Events of Default which may have occurred have been remedied, then the Trustee may, by written notice to the Authority, rescind or annul such declaration and its consequences. No such rescission or annulment shall extend to or affect any subsequent default or impair any right consequent thereon. Subordinate Debt may not be accelerated if any Senior Debt is Outstanding.

Other Remedies and Rights of Bondholders (Section 904)

Upon the occurrence and continuation of an Event of Default, the Trustee may (and if requested by the holders of not less than 25% in aggregate principal amount of Bonds Outstanding and if indemnified in accordance with prevailing industry standards shall) proceed to protect and enforce their rights by mandamus or other suit, action or proceeding at law or in equity, including an action for specific performance of any covenant or agreement contained in the Indenture. No remedy conferred by the Indenture upon or reserved to the Trustee and Bondholders is intended to be exclusive of any other remedy, but each such remedy shall be cumulative and shall be in addition to any other remedy given to the Trustee and holders of Bonds under the Indenture or now or hereafter existing at law, in equity or by statute. No delay or omission to exercise any right or power accruing upon any default or Event of Default shall impair any such right or power, or shall be construed to be a waiver of any such default or Event of Default or acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient. No waiver of any default or Event of Default under the Indenture by the Trustee or Bondholders shall extend to or affect any subsequent default or Event of Default or shall impair any rights or remedies consequent thereon.

Right of Bondholder to Direct Proceedings (Section 905)

Anything in the Indenture to the contrary notwithstanding, the holders of a majority in aggregate principal amount of Bonds then Outstanding shall have the right, at any time, by an instrument or instruments in writing executed and delivered to the Trustee, 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 thereunder; provided, however, that such direction shall not be otherwise than in accordance with the provisions of law and of the Indenture.

Application of Moneys – General (Section 906)

All moneys received by the Trustee pursuant to any right given or action taken under the Indenture, after payment of the cost and expenses of the proceedings resulting in the collection of such moneys, the expenses, liabilities and advances incurred or made by the Trustee and its fees and the expenses of the Authority in carrying out the Indenture, shall be deposited in the Bond Fund and applied for no other purpose than as follows, unless the principal of all of the Bonds shall have become due or shall have been declared due and payable:

First – To the payment to the persons entitled thereto of all installments of interest then due on the Senior Debt, in the order of the maturity of the installments of such interest and; if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference, except as to any difference in the respective rates of interest specified in the Senior Debt; and

Second – To the payment to the persons entitled thereto of the unpaid principal of and premium, if any, on any of the Senior Debt which shall have become due (other than Senior Debt called for redemption for the payment of which moneys are held pursuant to the provisions of the Indenture), to pay in full Senior Debt due on any particular date and then to the payment of such principal and premium, if any, ratably, according to the amount of such principal due on such date, to the persons entitled thereto, without any discrimination or preference.

If the principal of all the Bonds shall have become due or shall have been declared due and payable, all such moneys shall be applied to the payment of the principal and interest then due and unpaid on the Senior Debt, including, to the extent permitted by law, interest on overdue installments of interest, without preference or priority of principal over interest or of interest over principal, or of any installment of interest over any other installment of interest, or of any Senior Debt over any other Senior Debt, ratably, according to the amounts due respectively for principal and interest, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Senior Debt.

If the principal of all the Bonds shall have been declared due and payable and if such declaration shall thereafter have been rescinded and annulled under the provisions of the Indenture, then, subject to the provisions Section 906 of the Indenture in the event that the principal of all the Senior Debt shall later become due or be declared due and payable, the moneys shall be applied in accordance with the provisions of Section 906 of the Indenture. Whenever moneys are to be applied pursuant to the provisions of Section 906, such moneys shall be applied at such times and from time to time as the Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Trustee shall apply such moneys, it shall fix the date (which shall be an Interest Payment Date unless it shall deem another date more suitable) on which such application is to be made and, on such date, interest shall cease to accrue on the amounts of principal to be paid. The Trustee shall give such notice as it may deem appropriate of the deposit with it of any such moneys and of the fixing of any such date. Whenever there are moneys remaining after application to the Bond Fund for the payment of Senior Debt, the Trustee shall apply such remaining moneys, allocated in a similar manner as provided above, to the payment of Subordinate Debt. Whenever the principal of and premium, if any, and interest on all Indebtedness have been paid under the provisions of Section 906 of the Indenture, all payments required by the terms of any Supplemental Indenture have been paid and all expenses and charges of the Trustee have been paid, any balance remaining in the several funds created by the Indenture shall be paid to the Authority as provided in the Indenture.

Remedies Vested in Trustee (Section 907)

All rights of action (including the right to file proof of claims) under the Indenture or under any of the Bonds may be enforced by the Trustee without the possession of any of the Bonds or the production thereof in any trial or other proceeding relating thereto, and any such suit or proceeding instituted by the Trustee may be brought in its name as Trustee, without the necessity of joining as plaintiffs or defendants any Bondholders, and any recovery of judgment shall be for the equal benefit of the Bondholders.

Limitation on Suits (Section 908)

Except to enforce the rights described under “Other Remedies; Rights of Bondholders (Section 904)” and “Right of Bondholders to Direct Proceedings (Section 905)”, no Bondholder shall have any right to institute any action, suit or proceeding at law or in equity for the enforcement of the Indenture or for the execution of any trust thereof or any other remedy under the Indenture, unless (a) a default has occurred and is continuing of which the Trustee has been notified as provided in the Indenture, or of which under the Indenture the Trustee is deemed to have notice, (b) such default has become an Event of Default and the

holders of 25% in aggregate principal amount of Bonds then Outstanding have made written request to the Trustee and offered it reasonable opportunity either to proceed to exercise the powers hereinbefore granted or to institute such action, suit or proceeding in its own name, (c) such requesting Bondholders have offered to the Trustee indemnity as provided in the indenture, (d) the Trustee has thereafter failed or refused to exercise the powers granted under the Indenture, or to institute such action, suit or proceeding in its, own name, (e) no direction inconsistent with such written request has been given to the Trustee by the holders of a majority in aggregate principal amount of Bonds then Outstanding, and (f) notice of such action, suit or proceeding is given to the Trustee, it being understood and intended that no one or more holders of the Bonds shall have any right in any manner whatsoever to affect, disturb or prejudice the Indenture by its or their action, or to enforce any rights under the Indenture except in the manner therein provided, and that all proceedings at law or in equity shall be instituted and maintained in the manner herein provided and for the equal benefit of the holders of all Bonds then Outstanding. The notification, request and offer of indemnity set forth in the Indenture, at the option of the Trustee, shall be conditions precedent to the execution of the powers and trusts of the Indenture and to any action or cause of action for the enforcement of the Indenture or for any other remedy under the Indenture.

Waivers of Events of Default (Section 910)

The Trustee may in its discretion waive any Event of Default under the Indenture or any action taken pursuant to any Event of Default and rescind any acceleration of maturity of principal of and interest on the Bonds, and shall do so at the written request of the holders of (a) a majority in aggregate principal amount of Bonds then Outstanding in respect of which default in the payment of principal and/or premium, if any, and/or interest exists, or (b) a majority in aggregate principal amount of Bonds then Outstanding in the case of any other default, provided, however, that (1) there shall not be waived without the written consent of the holders of all Bonds then Outstanding (A) any Event of Default in the payment of the principal of any Outstanding Bonds (whether at maturity or by sinking fund redemption), or (B) any default in the payment when due of the interest on any such Bonds unless, prior to such waiver or rescission, (i) there shall have been paid or provided for all arrears of interest with interest, to the extent permitted by law, at the rate borne by the Bonds on overdue installments of interest, all arrears of principal of, premium, if any, and all expenses of the Trustee in connection with such default, and (ii) in case of any such waiver or rescission or in the case of any discontinuance, abandonment or adverse determination of any proceeding taken by the Trustee on account of any such default, the Authority, the Trustee, and the holders of Bonds shall be restored to their former positions and rights under the Indenture respectively; (2) no acceleration of maturity described under “Acceleration (Section 903)” made at the request of the holders of 25% in aggregate principal amount of Bonds then Outstanding shall be rescinded unless requested by the holders of at least 25% in aggregate principal amount of Bonds then Outstanding; and (3) any such waiver and/or rescission shall only be effective with respect to the Bonds if the holders of Other System Indebtedness shall have waived any event of default related to such Other System Indebtedness or any action taken pursuant to such event of default and/or rescinded any declaration of maturity of principal of and interest on the Other System indebtedness. No such waiver or rescission relating to the Bonds shall extend to any subsequent or other default, or impair any right consequent thereon.

Unconditional Right to Receive Principal, Premium and Interest (Section 911)

Nothing in the Indenture, however, shall affect or impair the right of the Trustee or any Bondholder to enforce, by action at law, payment of the principal of, premium, if any, or interest on any Bond at and after the maturity thereof, or on the date fixed for redemption or upon the same being declared due prior to maturity as herein provided, or the obligation of the Authority to pay the principal of, premium, if any, and interest on each of the Bonds issued under the Indenture to the respective holders thereof at the time and place, from the source and in the manner expressed in the Indenture and in the Bonds.

Supplemental Indentures Not Requiring Consent of Holders of Bonds (Section 1001)

The Authority and the Trustee may, without the consent of, or notice to, any of the Bondholders, enter into Supplemental Indentures as shall not be inconsistent with the intent of the terms and provisions of the Indenture, to (a) cure any ambiguity, formal defect or omission in the Indenture; (b) grant to or confer upon the Bondholders any additional rights, remedies, powers or authority that may lawfully be granted to or conferred on the Bondholders; (c) add to the covenants and agreements of the Authority in the Indenture other covenants and agreements to be observed by the Authority; (d) modify, amend or supplement the Indenture in such manner as required to permit the Authority to comply with the provisions of the Code relating to the rebate to the United States of America of earnings derived from the investment of the proceeds of Bonds, provided that such modification, amendment or supplement does not materially adversely affect the holders of all Outstanding Bonds; (e) modify, amend or supplement the Indenture in such manner as may be required by a Rating Agency to maintain or enhance its rating on the Senior Debt, provided that such modification, amendment or supplement does not materially adversely affect the holders of all Outstanding Bonds; (f) modify, amend or supplement the Indenture to implement any covenants or agreements contemplated by the Indenture; (g) authorize the issuance of and to secure one or more issues of Indebtedness pursuant to the Indenture; (h) amend any agreement with a securities depository relating to a book-entry only system to be maintained with respect to any Bonds; or (i) modify, amend or supplement the Indenture in any manner that the Trustee concludes is not materially adverse to the holders of all Outstanding Bonds.

Supplemental Indentures Requiring Consent of Bondholders (Section 1002)

Exclusive of Supplemental Indentures authorized by Section 1001 of the Indenture and subject to the terms and provisions contained in Section 1002 of the Indenture, the holders of not less than a majority in aggregate principal amount of Outstanding Bonds shall have the right, from time to time, notwithstanding anything in the Indenture to the contrary, to consent to the execution by the Authority and the Trustee of such other agreements or agreements supplemental to the Indenture as shall be deemed necessary or desirable by the Authority for the purpose of modifying, altering, amending, adding to or rescinding, in particular, any of the terms or provisions contained in the Indenture and any Supplemental Indentures; provided, however, that nothing in the Indenture shall permit, or be construed as permitting, (a) an extension of the maturity of the principal of or the interest on any Bonds, (b) a privilege or priority of any Senior Debt over any other Senior Debt, (c) a reduction in the aggregate principal amount of Bonds required for consent to any Supplemental Indentures, (d) a reduction in the principal amount of or premium, if any, on any Bonds or the rate of interest thereon, or (e) an extension of time or a reduction in amount of any payment required by any sinking fund that may be applicable to any Bonds, without the consent of the holders of all of the Outstanding Bonds; provided, however that there shall be no modification of the Net Revenue pledge which secures the Other System Indebtedness nor of the Net Revenue pledge which secures the Subordinate Debt, if such respective modification would adversely affect the interests of the holders of such debt.

If at any time the Authority shall request the Trustee to enter into any Supplemental Indenture, the Trustee shall cause notice of the proposed execution of such Supplemental Indenture to be sent by registered or certified mail to the registered owner of each Bond at his address as it appears on the registration books. Such notice shall briefly set forth the nature of the proposed Supplemental Indenture and shall state that a copy thereof is on file at the corporate trust office of the Trustee for inspection by all Bondholders. If, within 90 days or such longer period as shall be prescribed by the Authority following the giving of such notice, the holders of not less than a majority in aggregate principal amount of Outstanding Bonds, or in the case of (a) through (e) above, the holders of all Outstanding Bonds, shall have consented to and approved the execution thereof as herein provided, no holder of any Bond shall have any right to object to any of the terms and provisions contained therein, or the operation hereof, or in any manner to question the propriety thereof, or to enjoin or restrain the Trustee or the Authority from executing such Supplemental Indenture

or from taking any action pursuant to the provisions thereof. Upon the execution of any such Supplemental Indenture as permitted and provided in the Indenture, the Indenture shall be and be deemed to be modified and amended in accordance therewith. Bonds owned or held by or for the account of the Authority shall not be deemed Outstanding for the purpose of consent or any calculation of Outstanding Bonds provided for in the Indenture. At the time of any such calculation, the Authority shall furnish the Trustee a certificate of an Authorized Representative of the Authority upon which the Trustee may rely, describing all Bonds so to be excluded.

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 Subordinate Lien Multimodal Revenue Bonds, Series 2022E (the “Series 2022E Bonds”). The Series 2022E 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 2022E Bonds (the “Indenture”), including by the Thirty-Second Supplemental Indenture of Trust, to be dated the date of issuance and delivery of the Series 2022E Bonds (the “Thirty-Second Supplemental Indenture”), each by and between the Authority and Computer Share Trust Company, 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 2022E 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 2022E Bonds required to comply with the Rule in connection with offering of the Series 2022E 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, 2022 (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 2022E 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 [DATE] relating to the Series 2022E 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 2022E 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 2022E 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 2022E Bonds or other material events affecting the tax status of the Series 2022E 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 2022E 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;
7. Appointment of a successor or additional trustee or the change of name of a trustee;
8. Incurrence of a financial obligation of the Issuer or obligated person, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the Issuer or obligated person, any of which affect security holders, if material; or
9. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of the financial obligation of the Issuer or obligated person, any of which reflect financial difficulties.

For purposes of items 8 and 9 above, “financial obligation” means: (i) a debt obligation; (ii) a derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (iii) a guarantee of (i) or (ii).

(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 2022E Bonds. If such termination occurs prior to the final maturity of the Series 2022E 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 2022E 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 2022E 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 2022E 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 2022E 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 2022E Bonds, and shall create no rights in any other person or entity.

Date: _____, 2022

DISTRICT OF COLUMBIA WATER AND SEWER
AUTHORITY

By: _____
Matthew T. Brown
Chief Financial Officer and Executive Vice President,
Finance and Procurement

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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 2022E Bonds, payments of principal, premium, if any, and interest on the Series 2022E Bonds to DTC, its nominee, Participants, or Beneficial Owners, confirmation and transfer of beneficial ownership interests in the Series 2022E 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 Underwriter take no responsibility for the accuracy thereof.

The Depository Trust Company, New York, New York (“DTC”) will act as securities depository for the Series 2022E Bonds. The Series 2022E 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 2022E Bond will be issued for the Series 2022E 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 2022E Bonds under the DTC system must be made by or through Direct Participants, who will receive a credit for such Series 2022E Bonds on DTC’s records. The ownership interest of each actual purchaser of each Series 2022E 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 2022E 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 2022E Bonds, except in the event that use of the book-entry system for the Series 2022E Bonds is discontinued.

To facilitate subsequent transfers, all Series 2022E 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 2022E 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 2022E Bonds; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Series 2022E 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 2022E 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 2022E 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 2022E 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 2022E 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 2022E Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the Series 2022E 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 2022E 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 2022E 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 2022E Bonds Bond certificates will be printed and delivered.

So long as Cede & Co. is the registered owner of the Series 2022E Bonds, as partnership nominee for DTC, references herein to Bondholders or registered owners of the Series 2022E Bonds (other than under the caption "TAX MATTERS") shall mean Cede & Co. and shall not mean the Beneficial Owners of the Series 2022E 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 2022E 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 2022E 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 2022E BONDS; (V) ANY CONSENT GIVEN OR OTHER ACTION TAKEN BY DTC AS THE OWNER OF THE SERIES 2022E BONDS; OR (VI) ANY OTHER MATTER.

APPENDIX F
PROPOSED FORM OF OPINION OF CO-BOND COUNSEL

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February ____, 2022

To: District of Columbia Water and Sewer Authority

RBC Capital Markets, LLC
New York, New York,
as Representative of the Underwriters of the Series 2022E Bonds

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 \$[100,000,000]* Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E (the "Series 2022E Bonds"), dated the date of this letter.

The Series 2022E 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, National Association, as successor to Norwest Bank Minnesota, National Association (the "Trustee"), as supplemented and amended, including by the Thirty-Second Supplemental Indenture of Trust, dated as of the same date as and relating to the Series 2022E Bonds (the "Thirty-Second 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 2022E Bonds, a copy of each signed and authenticated Series 2022E 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 2022E Bonds and the Indenture are valid and binding obligations of the Authority, enforceable in accordance with their respective terms.
2. The Series 2022E Bonds constitute special, limited obligations of the Authority, and the principal of and interest and any premium (collectively, "debt service") on the Series 2022E Bonds, together with debt service on Senior Debt and other Subordinate 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 2022E Bonds are secured as Subordinate Debt under the Indenture and, as such, are secured by a subordinate lien on and pledge of (i) Net Revenues on a parity with the pledge of Net Revenues that secures other Subordinate Debt; and (ii) the moneys and Permitted Investments in the Subordinate Bond Fund on a parity with the pledge of Net Revenues that secures other Subordinate Debt. The Series 2022E 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 2022E 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. The Series 2022E Bonds

* Preliminary, subject to change.

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 2022E 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 2022E 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 2022E Bonds may cause interest on the Series 2022E 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 2022E Bonds and the enforceability of the Series 2022E Bonds and the Indenture are subject to bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or transfer, and other laws relating to or affecting the rights and remedies of creditors generally; to the application of equitable principles, whether considered in a proceeding at law or in equity; to the exercise of judicial discretion; and to limitations on legal remedies against public entities.

No opinions other than those expressly stated herein are implied or shall be inferred as a result of anything contained or omitted from this letter. The opinions expressed in this letter are stated only as of the time of its delivery and we disclaim any obligation to revise or supplement this letter thereafter. Our engagement as co-bond counsel in connection with the original issuance and delivery of the Series 2022E Bonds has concluded upon delivery of this letter.

Very truly yours,

M&A draft 12/30/21

BOND PURCHASE AGREEMENT

\$00,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E

_____, 2022

District of Columbia Water and Sewer Authority
1385 Canal Street S.E.
Washington, DC 20003

Ladies and Gentlemen:

RBC Capital Markets, LLC and Citigroup Global Markets, as the underwriters (the “Underwriters”), offer to enter into this bond purchase agreement (this “Agreement”) with the District of Columbia Water and Sewer Authority (the “Authority”). The offer made hereby is subject to acceptance thereof by execution of this Agreement and its delivery to the Underwriters, at or prior to 5:00 p.m., New York, New York Time, on the date hereof, or at such other time or on other date as may be agreed upon by the Underwriters. Upon such acceptance, this Agreement shall be in full force and effect in accordance with its terms and shall be binding upon the Authority and the Underwriters. If this offer is not so accepted, it is subject to withdrawal by the Underwriters upon written notice delivered to the Authority at any time prior to acceptance. Terms used but not defined herein are defined in the Indenture identified below.

1. **Purchase and Sale of Bonds.** On the terms and conditions and on the basis of the representations, warranties, covenants and agreements set forth herein, the Underwriters, hereby agrees to purchase from the Authority for offering to the public, and the Authority hereby agrees to sell and deliver to the Underwriters for such purpose, all (but not less than all) of its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E, in the original principal amount of \$00,000,000 (the “Bonds”). The proceeds of the Bonds will be used to (i) pay the costs of certain capital improvements to the System, and (ii) pay the costs of issuing the Bonds. The purchase price of the Bonds will be \$_____ (the par amount of the Bonds less the Underwriters’ discount of \$_____ plus original issue premium of \$_____). The Bonds will mature on the dates and in the amounts and will bear interest and will be subject to redemption prior to maturity as set forth on Exhibit A hereto.

2. **Bond Authorization.** The Bonds shall be issued under and pursuant to provisions of the laws of the United States of America and the District of Columbia (the “District”), including particularly, an act of the Council of the District entitled the “Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996,” as amended, codified at District of Columbia Official Code Ann. Sections 34-2201.01 *et seq.*, and the acts amendatory thereof and supplemental thereto (the “Act”), and an act of the United States Congress entitled the “District of Columbia Water and Sewer Authority Act of 1996”

(Public Law 104-184), as amended (the “Federal Act”), and all proceedings necessary to authorize and provide for the issuance of the Bonds, including Resolution No.22- adopted by the Board of Directors of the Authority, on January 6, 2022 (the “Resolution”), and the Master Indenture of Trust, dated as of April 1, 1998 (the “Master Indenture”), between the Authority and Computershare Trust Company, N.A., as trustee (the “Trustee”), as amended and supplemented, including by the Thirty-Second Supplemental Indenture of Trust, dated as of the Closing Date (as defined below) (the “Thirty-Second Supplemental Indenture,” and together with the Master Indenture as previously amended and supplemented, the “Indenture”), between the Authority and the Trustee, substantially in the forms previously delivered to us.

3. **Closing.** At 11:00 a.m. Eastern Standard Time on March , 2022, or at such other time and date as may be mutually agreed upon by the Authority and the Underwriters (the “Closing Date”), the Authority will, subject to the terms and conditions hereof, deliver the Bonds to the Underwriters in definitive form, duly executed and authenticated, together with the other documents hereinafter required, and, subject to the terms and conditions hereof, the Underwriters will accept such delivery and pay the purchase price of the Bonds as set forth in Section 1 hereof in federal funds to the order of the Authority (the “Closing”). Delivery of the Bonds will be made through the facilities of The Depository Trust Company, New York, New York. The Closing will occur at the offices of Squire Patton Boggs (US) LLP, Washington, D.C., or such other place as may be mutually agreed on by the Authority and the Underwriters.

4. **Public Offering of the Bonds.** It is a condition of the Authority’s obligation to sell and deliver the Bonds to the Underwriters, and of the obligation of the Underwriters to purchase and accept delivery of the Bonds, that the entire principal amount of the Bonds is sold and delivered by the Authority and accepted and paid for by the Underwriters at the Closing. The Underwriters intend to make an initial public offering of all of the Bonds at prices not in excess of the initial public offering prices set forth on the cover page of the Official Statement. The Underwriters may offer and sell the Bonds to certain dealers (including dealers depositing Bonds into investment trusts) at prices lower than the initial public offering prices.

5. **[Preliminary and] Final Official Statement.** [The Authority ratifies and consents to the legally permissible use by the Underwriters, prior to the date hereof, of the Preliminary Official Statement, dated _____, relating to the Bonds (the “Preliminary Official Statement”) in connection with the public offering of the Bonds and the Authority represents that] such Preliminary Official Statement is deemed final as of its date and as of the date hereof under Rule15c2-12 (“Rule 15c2-12”) promulgated by the U.S. Securities and Exchange Commission (the “SEC”) under the Securities Exchange Act of 1934, as amended (the “1934 Exchange Act”), except for Permitted Omissions (as defined in Rule 15c2-12). The form of the final Official Statement of the Authority relating to the Bonds, dated _____, 2022, including the cover page and Appendices thereto, and any revisions, amendments or supplements thereto (the “Official Statement”) as have been approved by the Authority, Co-Bond Counsel, and the Underwriters. The Authority authorizes, approves, ratifies and confirms the distribution of the Preliminary Official Statement and the Official Statement in paper and electronic format by the Underwriters in connection with the public offering and sale of the Bonds.

The Authority agrees to provide to the Underwriters, at such addresses as the Underwriters specifies, as many copies of the Official Statement as the Underwriters reasonably

request as necessary to comply with Rule G-32 and all other applicable rules of the Municipal Securities Rulemaking Board (the “MSRB”). The Authority agrees to deliver the Official Statement within seven business days after the date hereof and not later than one business day before the Closing Date and in sufficient time to accompany any confirmation that requests payment from any customer and to permit the Underwriters to comply with the requirements of Rule 15c2-12 (defined below). The [Preliminary Official Statement and the] Official Statement may be revised, amended, changed or supplemented by the Authority after the execution of this Agreement only with the permission of the Underwriters.

If, during the period from the date hereof to and including the date which is 25 days after the “end of the underwriting period” (as hereinafter defined), there shall exist any event, including, but not limited to, any material adverse change in the financial condition, results of operation or condition, financial or otherwise, of the Authority, and of which the Authority has knowledge, which, in the opinion of the Underwriters and counsel to the Underwriters or in the opinion of the Authority, requires a supplement or amendment to the Official Statement so that it will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, when it is delivered to a potential investor, the Authority will supplement or amend or cause to be supplemented or amended the Official Statement in a form and in a manner approved by the Underwriters and the Authority and will furnish to the Underwriters such supplement or amendment in sufficient quantity to permit the Underwriters to comply with the requirements of Rule 15c2-12 (“Rule 15c2-12”) promulgated by the Securities and Exchange Commission (the “SEC”) under the 1934 Exchange Act.

For the purpose of the preceding paragraph, the Authority may assume that the “end of the underwriting period” (in accordance with and as defined in Rule 15c2-12) means the Closing Date unless the Underwriters advises the Authority in writing on the Closing Date that there remains an unsold balance of the Bonds, in which case the “end of the underwriting period” means the date as of which the Underwriters notify the Authority that the Underwriters, directly or as a syndicate, no longer retain an unsold balance of the Bonds for sale to the public. The deemed end of the underwriting period, in order to allow the Underwriters to comply with Rule 15c2-12, shall be extended for additional periods of 30 days each upon receipt of written notification from the Underwriters that any Bonds remain unsold however, in no event shall the “end of the underwriting period” extend beyond the date sixty (60) days from the Closing Date. The Underwriters agrees to provide to the Authority written notification that none of the Bonds remain unsold which will be deemed the end of the underwriting period.

The Underwriters hereby agree to deliver a copy of the printed paper form of the Official Statement to the MSRB in an electronic format prescribed by the MSRB for its Electronic Municipal Market Access (“EMMA”) website at www.emma.msrb.org within one (1) business day of receipt of the executed final Official Statement by the Underwriters.

6. **Representations, Warranties and Covenants of the Authority.** The Authority hereby represents, warrants, covenants and agrees as follows:

a. The Authority is, and at the Closing Date will be, a duly organized and validly existing corporate body and independent authority of the District established under the

laws of the United States and the District, including the Act and the Federal Act, with the full legal right, power and authority to (i) adopt the Resolution, (ii) execute, deliver and perform its obligations under this Agreement, the Indenture, the Certificate of Award of the Authority establishing the purchase price, maturities, interest rates, redemption provisions and other terms of the Bonds, dated the date hereof (the “Certificate of Award”), and the Continuing Disclosure Agreement of the Authority dated as of the Closing Date (the “Continuing Disclosure Agreement,” and together with this Agreement and the Indenture, the “Bond Documents”); (iii) perform its obligations under the Water Sales Agreement, dated as of July 31, 1997, between the Authority and the United States of America, acting through the Secretary of the Army (the “Water Sales Agreement”) and the Blue Plains Intermunicipal Agreement of 2012 between the District, Fairfax County, Virginia, Montgomery County, Maryland, Prince George’s County, Maryland and the Washington Suburban Sanitary Commission (the “IMA,” and together with the Water Sales Agreement, the “System Agreements”), (iv) sell, issue and deliver the Bonds to the Underwriters as provided herein, and (v) carry out and consummate the transactions contemplated by the Resolution, the Bond Documents, the Preliminary Official Statement, the Official Statement and the System Agreements; and the Authority has complied, and at the Closing Date will be in compliance, in all material respects, with the Act and the Federal Act and with the obligations on its part in connection with the issuance of the Bonds contained in the Bonds, the Resolution, the Indenture, the Preliminary Official Statement, the Official Statement and this Agreement.

b. The Authority (i) has duly and validly adopted the Resolution, (ii) has authorized the execution and delivery of the Bond Documents, (iii) is authorized to execute, issue, sell and deliver the Bonds in book-entry form, (iv) is authorized to appoint, and has appointed, Computershare Trust Company, N.A., as Trustee (the “Trustee”), (v) is authorized to apply and will apply the proceeds of the Bonds as provided in and subject to all of the terms and provisions of the Resolution, including the payment or reimbursement of the Authority expenses incurred in connection with the negotiation, marketing, issuance and delivery of the Bonds to the extent required by Section 14, (vi) has taken or will take on or before the Closing Date, all action necessary or appropriate for (a) execution, issuance, sale and delivery of the Bonds in book-entry form to the Underwriters, (b) approval, execution and delivery of and the performance by the Authority of its obligations contained in the Bonds and the Bond Documents, (c) the approval, distribution and use of the Preliminary Official Statement and the approval, execution, distribution and use of the Official Statement for use by the Underwriters in connection with the public offering of the Bonds and (d) the consummation by it of all other transactions described in the Official Statement, the Bond Documents and any and all such other agreements and documents as may be required to be executed, delivered and/or received by the Authority in order to carry out, give effect to, and consummate the transactions described herein and in the Official Statement.

c. The adoption of the Resolution, the execution and delivery of the Bond Documents, the execution, issuance, sale and delivery of the Bonds in book-entry form and the performance by the Authority of its obligations hereunder and thereunder, and the performance by the Authority of its obligations under the System Agreements (collectively, the “Authority Undertakings”) are within the corporate powers of the Authority and are not in conflict with and will not constitute a breach, default or result in a violation of (i) the Act, (ii) any federal constitutional or federal or District statutory provision, including the Federal Act, (iii) any

agreement or other instrument to which the Authority is a party, or (iv) any order, rule, regulation, decree or ordinance of any court of competent jurisdiction, government or governmental authority having jurisdiction over the Authority or its property.

d. The District has authorized the Authority to use all of the property and assets of the water distribution and wastewater collection, treatment and disposal systems of the Authority (the “System”), uninterrupted by the District, for as long as any revenue bonds of the Authority, including the Bonds, remain outstanding. The Authority has the full legal right, power and authority to operate the System and to collect and pledge the Revenues therefrom in accordance with the Indenture.

e. The Resolution or other appropriate actions adopted or taken by the Authority establishing the rates and charges for services of the System described in the Preliminary Official Statement and the Official Statement have been duly adopted or taken and are in full force and effect.

f. The System Agreements and all other agreements, permits, licenses, consents, approvals, actions, consent decrees and settlement orders material to the operation and management of the System, including the collection of the Revenues therefrom as described in the Preliminary Official Statement and the Official Statement, are in full force and effect as of the date hereof and will be on the Closing Date, and the Authority is not and will not be in default thereunder or in breach thereof. The System Agreements have been duly authorized, executed and delivered by the Authority and constitute valid and binding obligations of the Authority enforceable in accordance with their respective terms, subject to applicable bankruptcy, insolvency and similar laws affecting creditors’ rights generally and subject, as to enforceability, to general principles of equity.

g. The Bonds, when issued, delivered to the Underwriters and paid for, in accordance with the Act, the Resolution, the Indenture and this Agreement, will have been duly authorized, executed, issued and delivered by the Authority and will constitute valid and binding obligations of the Authority, enforceable against the Authority in accordance with their terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium and similar laws affecting creditors’ rights generally and subject, as to enforceability, to general principles of equity. The Bonds are not a pledge of and do not involve the faith and credit or the taxing power of the District and the District shall not be liable thereon. The Bonds, the Indenture and the Resolution conform to the descriptions thereof contained in the Preliminary Official Statement and the Official Statement and the proceeds of the sale of the Bonds will be applied as described in the Preliminary Official Statement and the Official Statement.

h. The Authority is not currently failing to comply and except as disclosed in the Preliminary Official Statement and the Official Statement, has not failed to comply during the past five years with any continuing disclosure obligation pursuant to Rule 15c2-12. The Authority has agreed to deliver to the Underwriters a Continuing Disclosure Agreement with respect to the Bonds that complies with the requirements of Rule 15c2-12.

i. This Agreement constitutes, and, upon execution and delivery by the Authority and the other parties thereto, each of the other Bond Documents will constitute, the

valid, binding and enforceable obligation of the Authority in accordance with their respective terms, subject to applicable bankruptcy, insolvency, and similar laws affecting creditors' rights generally and subject, as to enforceability, to general principles of equity.

j. The Authority is not in material breach of or material default under any applicable constitutional provision or law of the United States, the District or any applicable judgment or decree, or any loan agreement, indenture, bond, note, resolution, agreement or other instrument to which it is a party or to which it or any of its property or assets is otherwise subject, and no event has occurred and is continuing which, with the passage of time or the giving of notice, or both, would constitute a default or event of default under any such instrument; and the execution and delivery of the Bonds, this Agreement and the other Bond Documents and the adoption of the Resolution, and compliance with the provisions contained therein and herein, and in the System Agreements, do not conflict with or constitute a breach of or default under any constitutional provision, law, administrative regulation, judgment, decree, loan agreement, indenture, bond, note, resolution, agreement, or other instrument to which it is a party or any of its property or assets are otherwise subject, nor will any such execution, delivery, adoption, or compliance result in the creation or imposition of any lien, charge, or other security interest or encumbrance of any nature whatsoever upon any of its property or assets or under the terms of any such law, regulation or instrument, except as provided by the Bonds.

k. All authorizations, approvals, licenses, permits, consents and orders of any governmental authority, legislative body, board, agency or commission having jurisdiction of the matter have been duly obtained or, with respect to the issuance of the Bonds, will be obtained prior to the issuance of the Bonds, which are required for the due authorization by or which would constitute a condition precedent to or the absence of which would materially adversely affect the due performance by the Authority of its obligations in connection with the issuance of the Bonds and under this Agreement, except for such approvals, consents and orders as may be required under the Blue Sky or securities laws of any state in connection with the offering and sale of the Bonds.

l. Except as otherwise described in the Preliminary Official Statement and the Official Statement, there is no litigation, action, suit, proceeding, inquiry or investigation, at law or in equity, before or by any court, government agency, public board or body, pending or, to the best knowledge of the Authority, threatened against the Authority (i) affecting or seeking to prohibit, restrain or enjoin the issuance, sale or delivery of the Bonds, the use of the Preliminary Official Statement or the Official Statement or the collection of the Revenues pledged to the payment of the principal of and interest on the Bonds, (ii) in any way contesting or affecting any authority for the issuance of the Bonds or the validity, enforceability, due authorization, execution or delivery of the Bonds, including this Agreement or the other Bond Documents, or the validity or enforceability of the System Agreements, nor, to the best knowledge of the Authority, is there any basis therefor, wherein an unfavorable decision, ruling or finding would materially adversely affect the validity or enforceability of the Bonds or the Bond Documents, (iii) questioning the tax-exempt status of the Bonds under the laws of the District or the United States, (iv) affecting or in any way contesting the corporate existence or powers of the Authority or the titles of the officers of the Authority to their respective offices, (v) which may result in any material adverse change in the business or the financial condition or the financial prospects of the Authority or (vi) asserting that the Preliminary Official Statement or the Official Statement or

any supplement thereto contains any untrue statement of a material fact or omits any material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

m. The Authority will furnish such information, execute such instruments and take such other action in cooperation with the Underwriters as the Underwriters may reasonably request in order to (i) qualify the Bonds for offer and sale under the Blue Sky or other securities laws and regulations of such states and other jurisdictions of the United States as the Underwriters may designate, (ii) determine the eligibility of the Bonds for investment under the laws of such states and other jurisdictions, and (iii) continue such qualifications in effect so long as required for the distribution of the Bonds and will advise the Underwriters promptly of receipt by the Authority of any written notification with respect to the suspension of the qualification of the Bonds for sale in any jurisdiction or the initiation or threat of any proceeding for that purpose; provided, however, that the Authority will not be required to execute a general or special consent to service of process or qualify to do business in connection with any such qualification or determination in any jurisdiction.

n. The audited balance sheets of the Authority for the years ended September 30, 2021 and September 30, 2020, and the related statements of revenues, expenditures and changes in net assets and cash flows for the fiscal year ended on such date, as set forth in the Preliminary Official Statement and the Official Statement, are true, complete and correct and fairly present the financial condition of the Authority as of such date and the results of its operations for such fiscal year. There has been no material adverse change in the financial condition of the Authority since September 30, 2021, except as described in the Preliminary Official Statement and the Official Statement. The financial statements of, and other financial information of the Authority in the Preliminary Official Statement and in the Official Statement fairly present the financial position and results of the Authority as of the dates and for the periods therein set forth, and except as noted in the Preliminary Official Statement and in the Official Statement, the other historical financial information set forth in the Preliminary Official Statement and in the Official Statement has been presented on a basis consistent with that of the Authority's audited financial statements included or incorporated by reference in the Preliminary Official Statement and in the Official Statement.

o. The Authority has duly authorized, approved and delivered the Preliminary Official Statement and the Official Statement to the Underwriters.

p. The Preliminary Official Statement, as of its date and as of the date of this Agreement, did not and does not, and the Official Statement, is, as of its date and (unless the Official Statement is amended or supplemented pursuant to this Agreement) at all times subsequent thereto during the period up to and including the Closing Date, did not and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. If between the date of the Official Statement and the Closing Date any event shall occur or any pre-existing fact or condition shall become known to the Authority that might or would cause the Official Statement, as then supplemented or amended, to contain any untrue statement of a material fact or to omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, the

Authority shall promptly notify the Underwriters thereof, and if in the reasonable opinion of the Underwriters, such event, fact or condition requires the preparation and publication of a supplement or amendment to the Official Statement, the Authority will at its expense supplement or amend the Official Statement in a form and in a manner approved by the Underwriters, which approval shall not be unreasonably withheld. If the Official Statement is supplemented or amended as aforesaid, at the time of each supplement or amendment thereto and (unless subsequently again supplemented or amended pursuant to such paragraph) at all times subsequent thereto during the underwriting period, as defined in Section 5, the Official Statement as so supplemented or amended will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which made, not misleading.

q. The obligation of the Authority to know or provide information within the knowledge of the Authority is limited to providing information that is in the actual knowledge of, or reasonably should have been in the actual knowledge of, the key staff members of the Authority listed in the Official Statement under the caption "Senior Management" or their respective successors.

r. The Authority undertakes that, for a period beginning with the day on which the Bonds are delivered to the Underwriters and ending on the 25th day following the end of the underwriting period, as defined in Section 5, it will apprise the Underwriters of all material developments, if any, occurring with respect to the Authority, and if requested by the Underwriters, at the Authority's expense, prepare a supplement to the Official Statement in respect of any such material event.

s. The Authority has not been notified of any listing or proposed listing by the Internal Revenue Service to the effect that the Authority is a bond issuer whose arbitrage certificates may not be relied upon.

t. Any certificate signed by an authorized delegate of the Authority in connection with the transactions described in this Agreement will be deemed a representation, warranty, covenant and agreement by the Authority to the Underwriters as to the statements made therein.

u. Prior to the Closing, the Authority will not take any action within or under its control that will cause any adverse change of a material nature in the Authority's financial position, or its results of operations or condition, financial or otherwise.

v. The Authority will not, prior to the Closing, offer or issue any bonds, notes or other obligations for borrowed money or incur any material liabilities, direct or contingent, except in the ordinary course of business, without the prior approval of the Underwriters, other than its Public Utility Subordinate Lien Revenue Bonds Series 2022B, its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds Series 2022C, and its Public Utility Subordinate Lien Revenue and Revenue Refunding Bonds Series 2022D each dated the date of Closing.

w. The Bonds and the Thirty-Second Supplemental Indenture conform to the descriptions thereof contained in [the Preliminary Official Statement and] the Official Statement under the caption “THE SERIES 2022E BONDS” and in Appendix C “GLOSSARY AND SUMMARY OF THE INDENTURE.”

7. **Representations of Underwriters.** The Underwriters represent and warrant that they will offer the Bonds only pursuant to the Official Statement and the Underwriters agree to make a public offering of the Bonds at the initial offering prices or yields set forth in the Official Statement as the Underwriters may deem necessary or desirable in connection with the offering and sale of the Bonds and to sell the Bonds to dealers (including dealer banks and dealers depositing Bonds into investment trusts) and others at prices lower than the public offering prices. At the Closing, the Underwriters shall deliver to the Authority a certificate, acceptable to Co-Bond Counsel, substantially in the form of Exhibit D hereto. The Underwriters agree to deliver a final Official Statement to all purchasers of the Bonds in accordance with all applicable legal requirements.

8. **Rights to Cancellation by Underwriters.** The Underwriters will have the right to cancel their obligation to purchase, accept delivery of and to pay for the Bonds if between the date hereof and the Closing Date, the market price or marketability of the Bonds or the ability of the Underwriters to enforce contracts for the sale of the Bonds shall be materially adversely affected in the reasonable judgment of the Underwriters, by the occurrence of any of the following: (a) legislation has been enacted by or introduced in Congress or a decision by a federal court of the United States or the United States Tax Court has been rendered, or a ruling, regulation or official statement by or on behalf of the Treasury Department of the United States, the Internal Revenue Service or other governmental agency has been made or proposed to be made with respect to federal taxation on revenues or other income to be derived from the operation of the Authority, or other actions or events have occurred which have the purpose or effect, directly or indirectly, of materially adversely affecting the federal income tax consequences of any of the transactions contemplated in connection herewith, including the tax-exempt status of bonds issued by the Authority under the Internal Revenue Code of 1986, as amended, or (b) legislation has been enacted, or actively considered for enactment with an effective date being prior to the date of the issuance of the Bonds, or a decision by a court of the United States has been rendered, or a ruling or regulation by the SEC or another governmental agency having jurisdiction of the subject matter has been made, the effect of which is that the Bonds are not exempt from the registration or other requirements of the Securities Act of 1933, as amended and as then in effect (the “1933 Securities Act”), or that the Indenture is not exempt from the qualification or other requirements of the Trust Indenture Act of 1939, as amended and as then in effect (the “Trust Indenture Act”), or (c) a stop order, ruling or regulation by the SEC has been issued or made, the effect of which is that the issuance, offering or sale of the Bonds as contemplated hereby or by the Official Statement is or would be in violation of any provision of the 1933 Securities Act, or of the 1934 Exchange Act, or of the Trust Indenture Act, or (d) there exists any event which in the reasonable judgment of the Underwriters either (i) makes untrue or incorrect any statement or information of a material fact contained in the Official Statement or (ii) is not reflected in the Official Statement but should be reflected therein in order to make the statements and information contained therein, in light of the circumstances under which they were made, not misleading, and, in either such event the Authority refuses to permit the Official

Statement to be supplemented to correct or supply such statement or information, or the statement or information as supplemented is such as in the reasonable judgment of the Underwriters would materially adversely affect the market for the Bonds or the sale, at the contemplated offering price, by the Underwriters of the Bonds, or (e) there has occurred any new outbreak of hostilities (including, without limitation, an act of terrorism) or escalation of hostilities existing prior to the date hereof or any other extraordinary event, material national or international calamity or crisis, or escalation thereof, including a financial crisis, or (f) any new restriction on transactions in securities materially affecting the market for securities (including the imposition of any limitation on interest rates or the establishment of minimum or maximum prices) or any material increase of restrictions now in force (including the extension of credit by, or a charge to the net capital requirements of, Underwriters) shall have been established by the New York Stock Exchange, the SEC, any other federal agency, the Congress of the United States, or by Executive Order, or (g) there is in force a general suspension of trading in securities on the New York Stock Exchange or any other national securities exchange or (h) a general banking moratorium has been declared by Federal, District or New York authorities, or (i) there has occurred since the date hereof any material adverse change in the affairs of the Authority from that reflected in the financial information and data of the Authority included in or as an appendix to the Official Statement, other than as previously disclosed to the Underwriters, or (j) a material disruption in securities settlement, payment or clearance services shall have occurred, or (k) there shall have occurred any downgrading or published negative credit watch or similar published information from a rating agency that on the date hereof has published a rating (or has been asked to furnish a rating on the Bonds) on any of the Authority's debt obligations, which action reflects a change or possible change in the ratings accorded any such obligations of the Authority (including any rating to be accorded to the Bonds) or (l) there shall have occurred any downgrading or published negative credit watch or similar published information from a rating agency that at the date of this Agreement has published a rating (or has been asked to furnish a rating on the Bonds) on any of the Authority's debt obligations, which action reflects a change or possible change, in the ratings accorded any such obligations of the Authority (including any rating to be accorded the Bonds).

9. **Rights to Cancellation by the Authority.** The Authority will have the right to cancel its obligation to issue, sell and deliver the Bonds if between the date hereof and the Closing Date, the market price or marketability of the Bonds shall be materially adversely affected, in the reasonable judgment of the Authority, by the occurrence of any of the following: (a) legislation has been enacted by or introduced in Congress or a decision by a federal court of the United States or the United States Tax Court has been rendered, or a ruling, regulation or official statement by or on behalf of the Treasury Department of the United States, the Internal Revenue Service or other governmental agency has been made or proposed to be made with respect to federal taxation on revenues or other income to be derived from the operation of the Authority, or other actions or events have occurred which have the purpose or effect, directly or indirectly, of materially adversely affecting the federal income tax consequences of any of the transactions contemplated in connection herewith, or (b) legislation has been enacted, or actively considered for enactment with an effective date being prior to the date of the issuance of the Bonds, or a decision by a court of the United States has been rendered, or a ruling or regulation by the SEC or another governmental agency having jurisdiction of the subject matter has been made, the effect of which is that the Bonds are not exempt from the registration or other requirements of the 1933 Securities Act, or that the Indenture is not exempt from the

qualification or other requirements of the Trust Indenture Act, or (c) a stop order, ruling or regulation by the SEC has been issued or made, the effect of which is that the issuance, offering or sale of the Bonds as contemplated hereby or by the Official Statement is or would be in violation of any provision of the 1933 Securities Act, or of the 1934 Exchange Act, or of the Trust Indenture Act, or (d) there has occurred any new outbreak of hostilities (including, without limitation, an act of terrorism) or escalation of hostilities existing prior to the date hereof or any other extraordinary event, material national or international calamity or crisis or escalation thereof, including a financial crisis, or (e) any new restriction on transactions in securities materially affecting the market for securities (including the imposition of any limitation on interest rates or the establishment of minimum or maximum prices) or any material increase of restrictions now in force (including the extension of credit by, or a charge to the net capital requirements of, Underwriters) shall have been established by the New York Stock Exchange, the SEC, any other federal agency, the Congress of the United States, or by Executive Order, or (f) there is in force a general suspension of trading in securities on the New York Stock Exchange or any other national securities exchange or (g) a general banking moratorium has been declared by Federal, District or New York authorities, or (h) a material disruption in securities settlement, payment or clearance services shall have occurred.] **may need to discuss**

10. **Conditions to Obligations of Underwriters at Closing.** The Underwriters have entered into this Agreement in reliance on the representations, warranties, covenants and agreements of the Authority contained herein, and in reliance on the representations, warranties, covenants and agreements to be contained in the documents and instruments to be delivered at the Closing and on the performance by the Authority of its obligations hereunder, as of the Closing Date. Accordingly, the Underwriters' obligations under this Agreement to purchase, to accept delivery of and to pay for the Bonds, are conditioned on the performance by the Authority of its obligations to be performed hereunder and the delivery of such documents and instruments enumerated herein in form and substance reasonably satisfactory to the Underwriters and Orrick, Herrington & Sutcliffe LLP, and McKenzie & Associates, co-counsel to the Underwriters, at or before the Closing, and are also subject to the following additional conditions:

a. The representations, warranties, covenants and agreements of the Authority contained herein are true, complete and correct on the date hereof and on and as of the Closing Date, as if made on the Closing Date;

b. The provisions of the Act and the Federal Act, as in effect on the date of this Agreement, shall be in full force and effect and shall not have been amended, except as to amendments which, in the reasonable opinion of the Underwriters, are not adverse to the interest of the Underwriters or the Bondholders;

c. At the time of the Closing, the Resolution is in full force and effect in accordance with its terms and has not been amended, modified or supplemented, and the Official Statement has not been supplemented or amended, except in any such case as may have been agreed to by the Underwriters;

d. At the time of the Closing, all official action of the Authority relating to the Bonds, the Bond Documents and the System Documents are in full force and effect in

accordance with their respective terms and have not been amended, modified or supplemented, except in each case as may have been agreed to by the Underwriters;

e. At the time of the Closing the Authority will perform or will have performed all of its obligations required under or specified in this Agreement, the Resolution and the Indenture, or contemplated by the Resolution, the Indenture or the Official Statement, to be performed prior to the Closing; and

f. At or before the Closing, the Underwriters will have received true and correct copies of each of the following documents:

- i. A certified copy of the Resolution;
- ii. The Official Statement and each supplement or amendment, if any, thereto, executed by the Authority;
- iii. Counterparts of each of the fully executed Bond Documents and the System Agreements;
- iv. The approving opinion of Co-Bond Counsel in substantially the form attached to Preliminary Official Statement and the Official Statement as Appendix F and a supplemental opinion, dated the Closing Date, in form and substance satisfactory to the Underwriters, and reliance letters with respect to such opinions addressed to Computershare Trust Company, N.A., as Trustee;
- v. An opinion, dated the Closing Date, of the Chief Legal Officer and Executive Vice President Legal Affairs of the Authority, substantially in the form of Exhibit B hereto;
- vi. An opinion, dated the Closing Date, of Orrick, Herrington & Sutcliffe LLP and McKenzie & Associates, co-counsel to the Underwriter, substantially in the form of Exhibit C hereto;
- vii. An opinion, dated the Closing Date, of Squire Patton Boggs (US) LLP and Bellamy Penn LLC, in their capacity as co-disclosure counsel to the Authority, in form and substance satisfactory to the Underwriter and its co-counsel;
- viii. An opinion, dated the Closing Date, of counsel to the Trustee, in a form approved by the Underwriters and their co-counsel;
- ix. A manually signed Financial Feasibility Opinion Letter dated March 1, 2022, of Amawalk Consulting Group LLC (the “Financial Feasibility Consultant”), regarding the financial feasibility of the issuance of the Bonds in substantially the form attached to the Preliminary Official Statement and the final Official Statement as Appendix A and a certificate of the Financial Feasibility Consultant with respect to the issuance and sale of the Bonds, permitting the use of such letter and references to said firm in the Preliminary Official Statement and the Official Statement in form and substance satisfactory to the Underwriters;

x. One or more certificates of the Authority, dated the Closing Date, (A) to the effect that the representations, warranties, covenants and agreements of the Authority herein are true and correct on and as of the Closing Date as if made on the Closing Date, and that the Authority has performed all obligations to be performed hereunder as of the Closing Date; (B) to the effect that the Bond Documents, the Bonds and the System Agreements have not been modified, amended or repealed after the date hereof without the written consent of the Underwriters; (C) to the effect that no material change has occurred with respect to the System from the period from the date of this Agreement through the Closing Date;

xi. Evidence of the completion of Internal Revenue Service Form 8038-G with respect to the issuance of the Bonds;

xii. Evidence that Moody's Investors Service, Inc. ("Moody's"), S&P Global Ratings Services ("S&P") and Fitch Ratings have issued ratings on the Bonds of "___", "___" and "___" respectively;

xiii. Such additional legal opinions, certificates, instruments and other documents as the Underwriters may reasonably request to evidence the truth and accuracy, as of the Closing Date, of the Authority's representations, warranties, covenants and agreements contained herein and of the statements and information contained in the Official Statement and the due performance or satisfaction by the Authority on or prior to the Closing Date of all the agreements then to be performed and conditions then to be satisfied by it.

All the opinions, letters, certificates, instruments and other documents mentioned above or elsewhere in this Agreement will be deemed to be in compliance with the provisions hereof if, but only if, they are in form and substance satisfactory to the Underwriters.

11. **Obligations Upon Cancellation.** If the Authority is unable to satisfy the conditions to the obligations of the Underwriters to purchase, to accept the delivery of and to pay for the Bonds contained in this Agreement, or if the obligations of the Underwriters to purchase, to accept delivery of and to pay for the Bonds is terminated for any reason permitted by this Agreement, this Agreement will terminate and neither the Underwriters nor the Authority will be under any further obligation hereunder, except that the Authority and the Underwriters shall pay their respective expenses as set forth in Section 15.

12. **Certain Information Provided by Underwriters.** The Underwriters confirm and the Authority acknowledges that the statements with respect to the public offering of the Bonds by the Underwriters set forth on the cover page of the Official Statement, the legend concerning over-allotments in the Official Statement and the text under the caption "UNDERWRITING" in the Official Statement constitute the only information concerning the Underwriters furnished in writing to the Authority by or on behalf of the Underwriters for inclusion in the Official Statement.

13. **Establishment of Issue Price.**

a. The Underwriters agree to assist the Authority in establishing the issue price of the Bonds and shall execute and deliver to the Authority at Closing an “issue price” or similar certificate, together with the supporting pricing wires or equivalent communications, substantially in the form attached hereto as **Exhibit D**, with such modifications as may be appropriate or necessary, in the reasonable judgment of the Underwriters, the Authority and Co-Bond Counsel, to accurately reflect, as applicable, the sales price or prices or the initial offering price or prices to the public of the Bonds. All actions to be taken by the Authority under this Section to establish the issue price of the Bonds may be taken on behalf of the Authority by PFM Financial Advisors LLC and Sustainable Capital Advisors (collectively, the “Municipal Advisor”) and any notice or report to be provided to the Authority may be provided to the Municipal Advisor.

b. The Authority will treat the first price at which at least 10% of each maturity of the Bonds (the “10% test”) is sold to the public as the issue price of that maturity (if different interest rates apply within a maturity, each separate CUSIP number within that maturity will be subject to the 10% test). At or promptly after the execution of this Bond Purchase Agreement, the Underwriters shall report to the Authority the price or prices at which the Underwriters have sold to the public each maturity of Bonds. If at that time the 10% test has not been satisfied as to any maturity of the Bonds, the Underwriters agree to promptly report to the Authority the prices at which Bonds of that maturity have been sold to the public. That reporting obligation shall continue, whether or not the Closing Date has occurred, until the 10% test has been satisfied as to the Bonds of that maturity or until all Bonds of that maturity have been sold to the public, provided that, the Underwriters’ reporting obligation after the Closing Date may be reasonable periodic intervals or otherwise upon request of the Authority.

c. The Authority acknowledges that, in making the representation set forth in this subsection, the Underwriters will rely on (i) the agreement of the Underwriters to comply with the hold-the-offering price rule, if applicable, as set forth in an agreement among underwriters and the related pricing wires, (ii) in the event a selling group has been created in connection with the initial sale of the Bonds to the public, the agreement of each dealer who is a member of the selling group to comply with the hold-the-offering-price rule, if applicable, as set forth in a selling group agreement and the related pricing wires, and (iii) in the event that an Underwriters is a party to a retail distribution agreement that was employed in connection with the initial sale of the Bonds to the public, the agreement of each broker-dealer that is a party to such agreement to comply with the hold-the-offering-price rule, if applicable, as set forth in the retail distribution agreement and the related pricing wires. The Authority further acknowledges that each Underwriter shall solely be liable for its failure to comply with its agreement regarding the hold-the-offering-price rule and no Underwriters shall be liable for the failure of any other Underwriters, or of any dealer who is a member of a selling group, or of any broker-dealer that is a party to a retail distribution agreement, to comply with its corresponding agreement regarding the hold-the-offering-price rule as applicable to the Bonds.

d. The Underwriters confirm that:

(i) any agreement among underwriters, any selling group agreement and each retail distribution agreement (to which the Underwriters are a party) relating to the initial sale of the Bonds to the public, together with the related pricing wires, contains or will contain language obligating each Underwriter, each dealer who is a member of the selling group and each broker-

dealer that is a party to such retail distribution agreement, as applicable, to (A) report the prices at which it sells to the public the unsold Bonds of each maturity allotted to it until it is notified by the Underwriters that either the 10% test has been satisfied as to the Bonds of that maturity or all of the Bonds of that maturity have been sold to the public and (B) comply with the hold-the-offering-price rule, if applicable, in each case if and for so long as directed by the Underwriters and as set forth in the related pricing wires, and

(ii) any agreement among underwriters relating to the initial sale of the Bonds to the public, together with any related pricing wires, contains or will contain language obligating each Underwriter that is a party to a retail distribution agreement to be employed in connection with the initial sale of the Bonds to the public to require each broker-dealer that is a party to such retail distribution agreement to (A) report the prices at which it sells to the public the unsold Bonds of each maturity allotted to it until it is notified by the Underwriters that either the 10% test has been satisfied as to the Bonds of that maturity or all Bonds of that maturity have been sold to the public and (B) comply with the hold-the-offering-price rule, if applicable, in each case if and for so long as directed by the Underwriters and as set forth in the related pricing wires.

e. The Underwriters acknowledge that sales of any Bonds to any person that is a related party to an Underwriter shall not constitute sales to the public for purposes of this section. Further, for purposes of this section:

i. “public” means any person other than an underwriter or a related party,

ii. “underwriter” means (A) any person that agrees pursuant to a written contract with the Authority (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the Bonds to the public and (B) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (A) to participate in the initial sale of the Bonds to the public (including a member of a selling group or a party to a retail distribution agreement participating in the initial sale of the Bonds to the public),

iii. a purchaser of any of the Bonds is a “related party” to an underwriter if the underwriter and the purchaser are subject, directly or indirectly, to (A) at least 50% common ownership of the voting power or the total value of their stock, if both entities are corporations (including direct ownership by one corporation of another), (B) more than 50% common ownership of their capital interests or profits interests, if both entities are partnerships (including direct ownership by one partnership of another), or (C) more than 50% common ownership of the value of the outstanding stock of the corporation or the capital interests or profit interests of the partnership, as applicable, if one entity is a corporation and the other entity is a partnership (including direct ownership of the applicable stock or interests by one entity of the other), and

iv. “sale date” means the date of execution of this Bond Purchase Agreement by all parties.

14. **No Advisory or Fiduciary Role.** The Authority acknowledges and agrees that: (i) the transactions contemplated by this Agreement are arm’s-length, commercial

transactions between the Authority and the Underwriters in which the each Underwriter is acting solely as a principal, and are not acting as an agent, a municipal advisor, financial advisor or fiduciary to the Authority; (ii) the Underwriters have not assumed any advisory or fiduciary responsibility to the Authority with respect to the transactions contemplated hereby and the discussions, conferences, negotiations, undertakings and procedures leading thereto (irrespective of whether the Underwriters or their affiliates have provided other services or are currently providing other services to the Authority on other matters); (iii) the only obligations the Underwriters have to the Authority with respect to the transaction contemplated hereby expressly are set forth in this Agreement; (iv) the Authority has consulted its own financial and/or municipal, legal, accounting, tax, and other advisors, as applicable, to the extent it has deemed appropriate; and (v) this Agreement expresses the entire relationship between the parties hereto.

15. **Expenses.** The Authority acknowledges that it has had an opportunity, in consultation with such advisors as it may deem appropriate, if any, to evaluate and consider the fees and expenses being incurred as part of the issuance of the Bonds. The Authority will pay all costs of issuance of the Bonds including, but not limited to (a) the cost of preparation and posting of the Preliminary Official Statement and the cost of preparation, posting, printing and delivery of the Official Statement, including the number of copies the Underwriters and the Authority deem reasonable; (b) any cost of preparation of the Bonds; (c) the fees and disbursements of Co-Bond Counsel; (d) the fees and disbursements of any accountants, consultants, financial advisors or additional legal counsel retained in connection with the issuance of the Bonds, including the Independent Engineer and the Financial Feasibility Consultant; (e) fees for Bond ratings and CUSIP numbers; (f) the expenses of travel, lodging and meals for Authority representatives in connection with the negotiation, marketing, issuance and delivery of the Bonds; (g) all advertising expenses in connection with the public offering of the Bonds, including investor meetings; (h) the costs of filing fees required by any of the Blue Sky laws; and (i) all reasonable and necessary out-of-pocket associated with the issuance of the Bonds. The Authority shall reimburse the Underwriters for the fees and expenses of Underwriters' counsel, any expense advanced or incurred by the Underwriters for which the Authority is responsible hereunder including (f) above and other reasonable expenses incurred in connection with the performance of the Underwriters' obligations hereunder (reimbursement may be included in the expense component of the Underwriters' discount, which the Underwriter acknowledges includes their expenses as set forth in Section 1).

16. **Notices.** Any notice or other communication to be given to the Authority under this Agreement may be given by delivering the same in writing to the address shown on the first page of this Agreement to the attention of the Chief Financial Officer and Executive Vice President Finance and Procurement, and any notice or other communication to be given to the Underwriters under this Agreement may be given by delivering the same in writing to RBC Capital Markets, LLC, 200 Vesey Street 9th floor, New York, NY _____, Attention: _____.

17. **Parties in Interest; Survival of Representations and Warranties.** This Agreement, when accepted in accordance with the provisions hereof, shall constitute the entire agreement between the Authority and the Underwriters and is made solely for the benefit of the Authority and the Underwriters (including the successors or assigns of the Authority or the Underwriters) and no other person will acquire or have any right hereunder or by virtue hereof. All of the Authority's and Underwriters' representations, warranties, covenants and agreements

contained in this Agreement will remain operative and full force and effect regardless of (a) any investigations made by or on behalf of the Underwriters; or (b) delivery of and payment for the Bonds pursuant to this Agreement.

18. **Effective Date.** This Agreement will become effective upon its acceptance by the Authority, as evidenced by the execution hereof by the appropriate official of the Authority, and will be valid and enforceable at the time of such acceptance.

19. **Execution in Counterparts.** This Agreement may be executed in counterparts each of which shall be regarded as an original and all of which shall constitute one and the same document.

20. **Finder.** The Authority represents and warrants that no finder or other agent of a finder has been employed or consulted by it in connection with this transaction.

21. **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the District of Columbia.

By: RBC CAPITAL MARKETS, LLC
CITIGROUP GLOBAL MARKETS,
as the Underwriters

RBC CAPITAL MARKETS, LLC

By: _____
Authorized Representative

[SIGNATURE PAGE TO SERIES 2022E BOND PURCHASE AGREEMENT]

Accepted: _____, 2022

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

By _____

Name: Matthew Brown

Title: Chief Financial Officer and Executive Vice
President Finance and Procurement

Time: _____

[SIGNATURE PAGE TO SERIES 2022E BOND PURCHASE AGREEMENT]

EXHIBIT A

\$00,000,000
 DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
 Public Utility Subordinate Lien Multimodal Revenue Bonds
 Series 2022E

Initial Interest Period Commencement	Initial Interest Period Expiration	Mandatory Tender Date	Initial Interest Rate (%)	Initial Yield (%)	Penalty Rate (%)
	, 20__	___ 1, 20__	___%	___%	___%

\$00,000,000 ___% Term Bonds, due October 1, 20__, Yield ___%*

*Priced to the _____ call date.

TERMS OF REDEMPTION

OPTIONAL REDEMPTION

The Series 2022E Bonds are subject to optional redemption, at the price of par, plus accrued but unpaid interest on or after July 1, 20___. In addition, the Series 2022E Bonds are subject to optional redemption, at the price of par, plus accrued but unpaid interest, on any date on which the Series2022E Bonds bear interest at the Penalty Rate.

MANDATORY SINKING FUND REDEMPTION

The \$00,000,000 Series 2022E Bonds maturing on October 1, 20__ shall be subject to mandatory sinking fund redemption, on October 1 of that respective year, as follows:

<u>Year</u>	<u>Principal Amount</u>
20__	\$
20__	\$
20__	\$
20__	\$
20__*	\$

*Final maturity.

EXHIBIT B

FORM OF AUTHORITY'S CHIEF LEGAL OFFICER AND EXECUTIVE VICE
PRESIDENT, LEGAL AFFAIRS OPINION

March , 2022

District of Columbia Water and Sewer Authority
1385 Canal Street S.E.
Washington, DC 20003

\$00,000,000
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E

Ladies and Gentlemen:

I am the Chief Legal Officer and Executive Vice President, Legal Affairs to the District of Columbia Water and Sewer Authority (the "Authority") and in connection with the issuance by the Authority of its and its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E, in the original principal amount of \$00,000,000 (the "Bonds"). I have reviewed an executed copy of the Bond Purchase Agreement, dated _____, 2022, between the Authority and RBC Capital Markets, LLC, as the Underwriter, with respect to the Bonds (the "Bond Purchase Agreement") and the Preliminary Official Statement, dated _____, 2022 (the "Preliminary Official Statement") and the Official Statement, dated _____, 2022, being distributed in connection with the issuance of the Bonds (collectively, the "Official Statement"). Capitalized terms used and not defined herein shall have the respective meanings given to such terms in the Bond Purchase Agreement.

I have also examined an act of the Council of the District of Columbia entitled the "Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996," codified, as amended, at District of Columbia Official Code Ann. Sections 34-2201.01 *et seq.*, and the acts amendatory thereof and supplemental thereto (the "Act"), and an act of the United States Congress entitled the "District of Columbia Water and Sewer Authority Act of 1996" (Public Law 104-184), as amended (the "Federal Act"), certified copies of proceedings of the Authority authorizing the issuance of the Bonds, including the Resolution and such other proceedings as I have considered necessary or advisable to render the following opinions.

In rendering the following opinions, I have relied on representations of the Authority as to matters of fact without independent investigation or verification and, as to matters of law, the representations of Co-Bond Counsel without independent research or verification and have assumed the genuineness of all signatures, the authenticity of all documents tendered to me as originals and the conformity to original documents of all documents submitted to me as certified or photostatic copies.

Based upon review of the materials described above and subject to the recitals and qualifications herein contained, to the best of my knowledge, information and belief, it is my opinion that:

1. The Authority is a body corporate duly created, organized and validly existing as an independent authority of the District under the Act and under the Federal Act (the Act and the Federal Act being sometimes hereinafter referred to as, the "Acts"). The Authority has the full legal right, power and authority to (i) adopt the Resolution, (ii) issue the Bonds, (iii) execute, deliver and perform its obligations under the Bond Documents, and (iv) perform its obligations under the System Agreements.

2. The Federal Act was duly enacted by Congress and the Act was duly enacted by the Council of the District of Columbia. The Acts remain in full force and effect. The Act transferred all assets and liabilities of the Water and Sewer Utility Administration ("WASUA") as indicated on the balance sheet prepared by WASUA, effective April 17, 1996, on an interim basis for the exclusive use and possession of the Authority for so long as any revenue bonds of the Authority, including the Bonds, remain outstanding.

3. The Resolution was adopted by the Authority and has not been amended since the date of the adoption thereof and remains in full force and effect as of the date hereof.

4. (i) The adoption of the Resolution, the issuance of the Bonds, the execution and delivery of the Bond Documents and the performance of the Authority's obligations thereunder, and (ii) the performance of the Authority's obligations under the System Agreements, under the circumstances contemplated thereby, do not and will not in any material respect conflict with or constitute on the part of the Authority, a breach of or default under any agreement or other instrument to which the Authority is a party, or any existing law, administrative regulation, court order, settlement order or consent decree to which the Authority is subject.

5. Except as otherwise described in the Preliminary Official Statement and the Official Statement, there is no action, suit, proceeding, inquiry or investigation, at law or in equity, before or by any court, government agency, public board or body, pending or, to the best of my knowledge, threatened against the Authority (i) seeking to prohibit, restrain or enjoin the issuance, sale or delivery of the Bonds, the use of the Official Statement or the collection of the revenues pledged to the payment of the principal of and interest on the Bonds, (ii) in any way contesting or affecting any authority for the issuance of the Bonds or the validity, enforceability, due authorization, execution or delivery of the Bonds, including the Bond Purchase Agreement or the other Bond Documents, or the validity or enforceability of the System Agreements, (iii) questioning the tax-exempt status of the Bonds under the laws of the District or the United States, (iv) in any way contesting the corporate existence or powers of the Authority or the titles of the officers of the Authority to their respective offices, (v) which may result in any material adverse change in the business or the financial condition or the financial prospects of the Authority or (vi) asserting that the Preliminary Official Statement or the Official Statement contains any untrue statement of a material fact or omits any material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

6. The statements and information contained in the Preliminary Official Statement and the Official Statement under the caption entitled "LITIGATION," are true, correct and complete in all material respects, and the information under such caption does not contain any untrue statement of a material fact and does not omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading in any material respect.

7. Pursuant to the Acts, the Authority has the full legal right, power and authority to operate the System and to collect and pledge the Revenues therefrom in accordance with the Indenture.

8. The Authority has approved the form of the Preliminary Official Statement and the Official Statement, the execution of the Official Statement and the delivery of the Official Statement to the purchasers of the Bonds.

9. The Authority has obtained the consents, approvals, authorizations or other orders required for the consummation of the transactions contemplated by the Bond Purchase Agreement, including the issuance of the Bonds.

This opinion and all documents which relate to this opinion are to be construed in accordance with the laws of the District and the United States of America. This opinion is rendered solely for the use of the Authority and may not be relied on by any other person.

Very truly yours,

Chief Legal Officer and Executive Vice President Legal Affairs

EXHIBIT C

FORM OF OPINION OF UNDERWRITERS' COUNSEL

March , 2022

\$00,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E

RBC Capital Markets, LLC
New York, NY

Citigroup Global Markets
New York, NY

Ladies and Gentlemen:

We have acted as counsel for you as the underwriter (the "Underwriter") in connection with your purchase from the District of Columbia Water and Sewer Authority (the "Authority") of its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E, in the original principal amount of \$00,000,000 (the "Bonds"), pursuant to the Bond Purchase Agreement, dated _____, 2022 (the "Purchase Agreement"), between you and the Authority. The Bonds are to be 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 Bonds (the "Indenture"), including by the Thirty-Second Supplemental Indenture of Trust, to be dated the date of issuance and delivery of the Bonds (the "Thirty-Second Supplemental Indenture"), each by and between the Authority and Computershare Trust Company, N.A., as trustee (the "Trustee"). The proceeds of the Bonds will be used to pay (i) a portion of the costs of certain other capital improvements to the System and (ii) pay costs of issuing the Bonds. Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Purchase Agreement.

In that connection, we have reviewed the Indenture, the Preliminary Official Statement of the Authority dated _____, 2022 (the "Preliminary Official Statement") and the Official Statement of the Authority, dated _____, 2022, with respect to the Bonds (the "Official Statement"), the Continuing Disclosure Agreement, dated March , 2022 (the "Continuing Disclosure Agreement"), the Purchase Agreement, certificates of the Authority, the Trustee and others, the opinions referred to in paragraph 10(f)(vi) of the Purchase Agreement, and such records and documents, and we have made such investigations of law, as we have deemed appropriate as a basis for the opinions and conclusions hereinafter expressed. We do not assume any responsibility for any electronic version of the Official Statement and assume that any such version is identical in all material respects to the printed version.

In arriving at the opinions and conclusions hereinafter expressed, we are not expressing any opinion or view on, and with your permission are assuming and relying on, the validity, accuracy and sufficiency of the records, documents, certificates and opinions referred to above, including the accuracy of all factual matters represented and legal conclusions contained therein, including (without limitation) any representations and legal conclusions regarding the due

authorization, issuance, delivery, validity and enforceability of the Bonds, and any laws, documents and instruments that may be related to the issuance, payment or security of the Bonds. We have assumed that all records, documents, certificates and opinions that we have reviewed, and the signatures thereto, are genuine.

Based on and subject to the foregoing, and in reliance thereon, as of the date hereof, we are of the following opinions or conclusions:

1. The Bonds are not subject to the registration requirements of the Securities Act of 1933, as amended, and the Indenture is exempt from qualification pursuant to the Trust Indenture Act of 1939, as amended.

2. We are not passing upon and do not assume any responsibility for the accuracy, completeness or fairness of any of the statements contained in the Preliminary Official Statement and the Official Statement and make no representation that we have independently verified the accuracy, completeness or fairness of any such statements. In our capacity as your counsel, to assist you with your responsibility with respect to the Preliminary Official Statement and the Official Statement, we participated in conferences with your representatives and representatives of the Authority, Squire Patton Boggs (US) LLP and Bellamy Penn LLC, as co-bond counsel and as co-disclosure counsel, financial advisors, feasibility consultants and others, during which the contents of the Official Statement and related matters were discussed. Based on our participation in the above-mentioned conferences (which did not extend beyond the date of the Official Statement), and in reliance thereon, on oral and written statements and representations of the Authority and others and on the records, documents, certificates, opinions and matters herein mentioned (as set forth above), we advise you as a matter of fact and not opinion that, during the course of our representation of you on this matter, no facts came to the attention of the attorneys in our firm rendering legal services to you in connection with the Preliminary Official Statement and the Official Statement which caused us to believe that the Preliminary Official Statement and the Official Statement as of their dates and as of the date hereof (except for any CUSIP numbers, financial, accounting, statistical or economic, engineering or demographic data or forecasts, numbers, charts, tables, graphs, estimates, projections, assumptions or expressions of opinion, any information about litigation to which the Authority is a party, any management discussion and analysis, Appendices to the Preliminary Official Statement and the Official Statement, or any information about book-entry, DTC, ratings, rating agencies, and tax exemption of the Bonds, which we expressly exclude from the scope of this paragraph and as to which we express no opinion or view) contained or contains any untrue statement of a material fact or omitted or omits to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. No responsibility is undertaken or view expressed with respect to any other disclosure document, materials or activity, or as to any information from another document or source referred to by or incorporated by reference in the Preliminary Official Statement and the Official Statement.

3. In our opinion, the Continuing Disclosure Agreement with respect to the Bonds for the benefit of the holders thereof, satisfies in all material respects the requirements for such an agreement in paragraph (b) (5) of the Rule 15c2-12; provided that, for purposes of this opinion,

we are not expressing any view regarding the content of the Official Statement that is not expressly stated in numbered paragraph 2 of this letter.

We are furnishing this letter to you pursuant to paragraph 10(f)(vi) of the Purchase Agreement solely for your benefit as the Underwriter. We disclaim any obligation to update this letter. This letter is not to be used, circulated, quoted or otherwise referred to or relied upon for any other purpose or by any other person. This letter is not intended to, and may not, be relied upon by owners of Bonds or by any other party to whom it is not specifically addressed.

Very truly yours,

EXHIBIT D

FORM OF UNDERWRITERS' CERTIFICATE

\$00,000,000

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E

UNDERWRITERS' CERTIFICATE

March __, 2022

RBC Capital Markets, LLC ("RBC"), for itself and as representative of the other underwriters for the bonds identified above (the "Issue"), issued by the District of Columbia Water and Sewer Authority (the "Issuer"), based on its knowledge regarding the sale of the Issue, certifies as of this date as follows:

1. Issue Price.

[If the issue price is determined using only the general rule (actual sales of at least 10%) in Regulations § 1.148-1(f)(2)(i) and at least 10% of each maturity has been sold as of the Closing Date:

1.1 As of the date of this certificate, for each Maturity of the Issue, the first price at which at least 10% of such Maturity of the Issue was sold to the Public is the respective price listed in the final Official Statement, dated _____, 2022 for the Issue (the "Sale Price" as applicable to respective Maturities). The aggregate of the Sale Prices of each Maturity is \$_____ (the "Issue Price").]

[If the issue price is determined using only the general rule (actual sales of at least 10%) in Regulations § 1.148-1(f)(2)(i) and at least 10% of each maturity has not been sold as of the Closing Date:

1.1 As of the date of this Certificate, for each [Maturity] [of the _____ Maturities] of the Issue, the first price at which at least 10% of [each] such Maturity of the Issue was sold to the Public (the "10% Test") are the respective prices listed in **Schedule A** attached hereto.

1.2 With respect to each of the _____ Maturities of the Issue:

(i) As of the date of this Certificate, the Underwriter has not sold at least 10% of these Maturities of the Issue at any single price.

(ii) As of the date of this Certificate, the RBC reasonably expects that the price at which at least 10% of each of these Maturities of the Issue will be sold to the Public will be the respective price or prices listed on the attached **Schedule A** as the “Reasonably Expected Sale Prices for Undersold Maturities.”

(iii) RBC will provide actual sales information (substantially similar to the information contained on **Schedule B**) as to the price at which at least 10% of each such Maturity (i.e., the Undersold Maturity or Maturities) of the Issue is sold to the Public.

(iv) On the date the 10% Test is satisfied with respect to all Maturities of the Issue, RBC will execute a supplemental certificate substantially in the form attached hereto as **Schedule C** with respect to any Maturities for which the 10% Test has not been satisfied as of the Closing Date.**]

[If the issue price is determined using a combination of actual sales (Regulations § 1.148-1(f)(2)(i)) and hold-the-offering-price (Regulations § 1.148-1(f)(2)(ii)):

1.1 As of the date of this certificate, for each Maturity of the Issue listed on Schedule A as the “General Rule Maturities,” the first price at which at least 10% of such Maturity was sold to the Public is the respective price listed in Schedule A (the “Sale Price” as applicable to each Maturity of the General Rule Maturities).

1.2 The Underwriter offered the Maturities listed on Schedule A as the “Hold-the-Offering-Price Maturities” to the Public for purchase at the respective initial offering prices listed in Schedule A (the “Initial Offering Prices” as applicable to each Maturity of the Hold-the-Offering-Price Maturities) on or before the Sale Date. A copy of the pricing wire or equivalent communication for the Issue is attached to this certificate as Schedule B.

1.3 As set forth in the Bond Purchase Agreement dated _____, 2022, between the Authority and Underwriter, the Underwriter agreed in writing that, (i) for each Maturity of the Hold-the-Offering-Price Maturities, it would neither offer nor sell any of the Issue of such Maturity to any person at a price that is higher than the Initial Offering Price for such Maturity during the Holding Period for such Maturity (the “hold-the-offering-price rule”), and (ii) any selling group agreement contains the agreement of each dealer who is a member of the selling group, and any retail distribution agreement contains the agreement of each broker-dealer who is a party to the retail distribution agreement, to comply with the hold-the-offering-price rule. The Underwriter has not offered or sold any Maturity of the Hold-the-Offering-Price Maturities at a price that is higher than the respective Initial Offering Price for that Maturity of the Issue during the Holding Period.

The aggregate of the Sale Prices of the General Rule Maturities and the Initial Offering Prices of the Hold-the-Offering-Price Maturities is \$[_____] (the “Issue Price”).]

[If the issue price is determined using only the hold-the-offering-price rule in Regulations § 1.148-1(f)(2)(ii):

1.1 As set forth in the Bond Purchase Agreement dated _____, 2022, between the Authority and the Underwriter, the Underwriter agreed in writing that, (i) for each Maturity of the Issue, it would neither offer nor sell any of such Maturity of the Issue to any person at a price that is higher than the Initial Offering Price for such Maturity during the Holding Period for such Maturity (the “hold-the-offering-price rule”), and (ii) any selling group agreement contains the agreement of each dealer who is a member of the selling group, and any retail distribution agreement contains the agreement of each broker-dealer who is a party to the retail distribution agreement, to comply with the hold-the-offering-price rule. The Underwriter has not offered or sold any Maturity of the Issue at a price that is higher than the respective Initial Offering Price for that Maturity of the Issue during the Holding Period.]

[1.2, 1.3, 1.4, 1.2] Definitions. [NOTE: If issue price is determined using only the general rule (actual sales of 10%), delete the definitions of “Holding Period” and “Sale Date.”]

[“Holding Period” means, for each Hold-the-Offering-Price Maturity of the Issue, the period starting on the Sale Date and ending on the earlier of (i) the close of the fifth business day after the Sale Date (_____, 2022), or (ii) the date on which the Underwriter sold at least 10% of such Maturity of the Issue to the Public at prices that are no higher than the Initial Offering Price for such Maturity.]

“Maturity” means bonds of the Issue with the same credit and payment terms. Bonds of the Issue with different maturity dates, or bonds of the Issue with the same maturity date but different stated interest rates, are treated as separate Maturities.

“Public” means any person (including an individual, trust, estate, partnership, association, company, or corporation) other than an Underwriter or a related party to an Underwriter. The term “related party” for purposes of this certificate generally means any two or more persons who have greater than 50 percent common ownership, directly or indirectly.

[“Sale Date” means the first day on which there is a binding contract in writing for the sale of a Maturity of the Issue. The Sale Date of the Issue is _____, 2022.]

“Underwriter” means (i) any person that agrees pursuant to a written contract with the Authority (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the Issue to the Public, and (ii) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (i) of this paragraph to participate in the initial sale of the Issue to the Public (including a member of a selling group or a party to a retail distribution agreement participating in the initial sale of the Issue to the Public).

All capitalized terms not defined in this Certificate have the meaning set forth in the Authority’s Tax Compliance Certificate or in Attachment A to it.

[2. Reserve Fund.

The funding of the Reserve Fund as provided in the Trust Agreement securing the Issue is reasonably required, was a vital factor in marketing the Issue, facilitated the marketing of the Issue at an interest rate comparable to that of bonds and other obligations of a similar type and is not in excess of the amount necessary for such purpose.]

[3. Yield.

3.1 The Yield on the Issue is _____%, being the discount rate that, when used in computing the present worth of all payments of principal and interest to be paid on the Issue, computed on the basis of a 360-day year and semi-annual compounding, produces an amount equal to the Issue Price of the Issue as stated in paragraph 1.1 [and computed with the adjustments stated in paragraphs 3.2 and 4.3].

3.2 Discount Bonds Subject to Mandatory Early Redemption. [No bond of the Issue that is subject to mandatory early redemption has a stated redemption price that exceeds the Initial Offering Price of such bond by more than one-fourth of 1% multiplied by the product of its stated redemption price at maturity and the number of years to its weighted average maturity date.] **[Or]** [The stated redemption price at maturity of the bonds of the Issue maturing in the year[s] 20__, which are the only bonds of the Issue that are subject to mandatory early redemption, exceeds the Initial Offering Price of such bonds by more than one-fourth of 1% multiplied by the product of the stated redemption price at maturity and the number of years to the weighted average maturity date of such bonds. Accordingly, in computing the Yield on the Issue stated in paragraph 3.1, those bonds were treated as redeemed on each mandatory early redemption date at their present value rather than at their stated principal amount.]

3.3 Premium Bonds Subject to Optional Redemption. No bond of the Issue:

- Is subject to optional redemption within five years of the Issuance Date of the Issue.
- That is subject to optional redemption has an Initial Offering Price that exceeds its stated redemption price at maturity by more than one-fourth of 1% multiplied by the product of its stated redemption price at maturity and the number of complete years to its first optional redemption date.]]

[4. Weighted Average Maturity.

The weighted average maturity (defined below) of the Issue is _____ years **[For refunding issues:** and the remaining weighted average maturity of the Refunded Bonds is _____ years. The weighted average maturity of an issue is equal to the sum of the products of the Initial Offering Price of each maturity of the issue and the number of years to the maturity date of the respective maturity (taking into account mandatory but not optional redemptions), divided by the Initial Offering Price of the entire Issue.]

5. Underwriter's Discount. The Underwriter's discount is \$_____, being the amount by which the aggregate Issue Price (as set forth in paragraph 1.1) exceeds the price paid by RBC to the Authority for the Issue.

The signer is an officer of RBC and duly authorized to execute and deliver this Certificate of the Underwriter for itself. RBC understands that the certifications contained in this Certificate will be relied on by the Issuer in making certain of its representations in its Tax Compliance Certificate and in completing and filing the Information Return for the Issue, and by Squire Patton Boggs (US) LLP and Bellamy Penn, LLP, as co-bond counsel ("Bond Counsel"), in rendering certain of their legal opinions in connection with the issuance of the Issue.

RBC has performed these calculations with the express understanding and agreement of Bond Counsel and the Issuer that, notwithstanding the performance of these calculations and the delivery of this certificate: (i) in doing so we are not acting as Municipal Advisor (as defined in Section 15 of the Securities Exchange Act), (ii) we do not have a fiduciary duty to the Issuer, and (iii) we are not to be construed as a "paid preparer" of any tax returns of the Issuer, including specifically (but not limited to) Form 8038-G.

Notwithstanding the foregoing, RBC reminds you that we are not accountants or actuaries, nor are we engaged in the practice of law. Accordingly, while we believe the calculations described above to be correct, we do not warrant them to be so, nor do we warrant their validity for purposes of Sections 103 and 141 through 150 of the Code.

The representations set forth in this certificate are limited to factual matters only. Nothing in this certificate represents RBC's interpretation of any laws, including specifically Sections 103 and 148 of the Code and the Treasury Regulations thereunder.

Dated: _____, 2022

By: RBC CAPITAL MARKETS, LLC,
as the Underwriter

[NOTE: If the general rule is used for each Maturity (i.e., actual sales of at least 10% of each Maturity) and at least 10% of each Maturity has been sold as of the Closing, there is no schedule to attach if the initial offering prices set forth in the Official Statement for the Issue are the first

prices at which at least 10% of each Maturity is sold. Otherwise, attach a schedule that shows the first price at which at least 10% of each Maturity was sold.]

[OR]

[If the issue price is determined using a combination of the general rule (actual sales) and hold-the-offering-price rule:

SCHEDULE A
SALE PRICES OF THE GENERAL RULE MATURITIES AND
INITIAL OFFERING PRICES OF THE HOLD-THE-OFFERING-PRICE MATURITIES
(Attached)

[**NOTE:** With respect to each Maturity of the Issue, Schedule A should include each Maturity's (i) maturity date, (ii) principal amount, (iii) coupon, (iv) yield, and (v) the sale prices/initial offering prices (as applicable).]

SCHEDULE B
PRICING WIRE OR EQUIVALENT COMMUNICATION
(Attached)

[OR]

[If the issue price is determined using only the hold-the-offering-price rule in Regulations § 1.148-1(f)(2)(ii):

SCHEDULE A
INITIAL OFFERING PRICES OF THE ISSUE
(Attached)

SCHEDULE B
PRICING WIRE OR EQUIVALENT COMMUNICATION
(Attached)

[OR]

If the issue price is determined using only the general rule (actual sales of at least 10%) in Regulations § 1.148-1(f)(2)(i) and at least 10% of each maturity has not been sold as of the Closing Date:

SCHEDULE A
TO
ISSUE PRICE CERTIFICATE

Actual Sales Information as of Closing Date

<u>Maturity/CUSIP</u>	<u>Coupon</u>	<u>Date Sold</u>	<u>Time Sold</u>	<u>Par Amount</u>	<u>Sale Price</u>
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]Reasonably Expected Sales Prices for Undersold Maturities as of Closing Date**

<u>Maturity/CUSIP</u>	<u>Coupon</u>	<u>Par Amount</u>	<u>Offering Prices</u>
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**]

[**SCHEDULE B
TO
ISSUE PRICE CERTIFICATE

Actual Sales for Undersold Maturities as of the Closing Date

<u>Maturity/CUSIP</u>	<u>Date Sold</u>	<u>Time Sold</u>	<u>Par Amount</u>	<u>Sale Price</u>
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**]

M&A draft 12/30/21

REMARKETING AGREEMENT

Between

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Issuer

and

RBC CAPITAL MARKETS, LLC

Remarketing Agent

Dated March , 2022

Relating to

\$ _____ Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E

This REMARKETING AGREEMENT (the “Agreement”), dated March , 2022 (the “Closing Date”), between the DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY (the “Issuer” or the “Authority”) and RBC Capital Markets, LLC (“RBC CM” or the “Remarketing Agent”).

W I T N E S S E T H:

WHEREAS, the Issuer has issued \$00,000,000 aggregate principal amount of the District of Columbia Water and Sewer Authority Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2022E (the “Bonds”) under and pursuant to provisions of the laws of the United States of America and the District of Columbia (the “District”), including particularly, an act of the Council of the District entitled the “Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996,” as amended, codified at District of Columbia Official Code Sections 34-2201.01 *et seq.*, and the acts amendatory thereof and supplemental thereto, and an act of the United States Congress entitled the “District of Columbia Water and Sewer Authority Act of 1996” (Public Law 104-184), as amended, and all proceedings necessary to authorize and provide for the issuance of the Bonds, including a resolution adopted by the Board of Directors of the Authority, dated September 5, 2019 (the “Resolution”), and the Master Indenture of Trust, dated as of April 1, 1998 (the “Master Indenture”), between the Authority and Computershare Trust Company, N.A., as trustee (the “Trustee”), as amended and supplemented, including by the Thirty-Second Supplemental Indenture of Trust, dated as of the Closing Date (the “Thirty-Second Supplemental Indenture,” and together with the Master Indenture as previously amended and supplemented, the “Indenture”);

WHEREAS, the Bonds and the Indenture provide among other things, that the owners of the Bonds (the “Owners”), may elect (or may be required) in certain instances to tender their Bonds for purchase upon the terms and conditions contained in the Bonds and the Indenture;

WHEREAS, the Indenture provides for the appointment of a remarketing agent to perform certain duties, including the use of its best efforts to remarket any Bonds tendered for purchase by the Owners; and

WHEREAS, RBC CM has agreed to accept the duties and responsibilities of the remarketing agent under the Indenture and this Agreement;

NOW, THEREFORE, for and in consideration of the mutual covenants made herein and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

Section 1. Definitions. Unless otherwise defined herein, all capitalized terms shall have the meanings ascribed to them in the Indenture.

“MSRB” shall mean: the Municipal Securities Rulemaking Board.

“Rule G-34 Documents” shall mean: (i) the letter of credit agreement, reimbursement agreement, standby bond purchase agreement, loan agreement, guaranty agreement or any other document establishing an obligation to provide credit and/or liquidity support with respect to the Bonds; (ii) the Indenture, Resolution, or any other authorizing document under which the Bonds were issued; (iii) any amendments, extensions, renewals, replacements or terminations thereof; and (iv) any other document required to comply with MSRB Rule G-34(c), as it may be amended from time to time; and, in each case where required to be delivered, such delivery shall be by electronic means in a word-searchable PDF file (or in such other form as the Remarketing Agent shall notify the Issuer/Borrower in writing) labeled with the following information: (a) CUSIP number; (b) name of issuer; (c) name of transaction; (d) name of document; and (e) whether the document is an execution version or a redacted version.

“SHORT System” shall mean: the MSRB’s Short-term Obligation Rate Transparency System.

Section 2. Appointment of Remarketing Agent. Subject to the terms and conditions contained herein, the Issuer hereby appoints RBC CM, as exclusive Remarketing Agent for the Bonds, and RBC CM hereby accepts such appointment. Notwithstanding Section 10 hereof, the Remarketing Agent is not required to perform under this agreement until an agreement for fees has been agreed to under Section 6 hereof.

Section 3. Responsibilities of Remarketing Agent. Subject to the terms and conditions set forth in this Agreement, RBC CM agrees to perform the duties of Remarketing Agent, with respect to the Bonds, set forth in the Indenture. It is understood that, in undertaking to perform such duties, and in the performance thereof, it is the intention of the parties that the Remarketing Agent will act solely as an agent and not as a principal except as expressly provided in Section 12. The Remarketing Agent shall not be liable for any action taken or omitted to be taken pursuant to this Agreement, except for its own gross negligence or willful misconduct.

[Notwithstanding the foregoing or any other provisions of this Remarketing Agreement or the Indenture, the use of the term “agent” with reference to the Remarketing Agent is not intended to connote any fiduciary or other implied (or express) obligations arising under agency doctrine of any applicable law. Instead, such term is used merely as a matter of market custom and is intended to create or reflect only an independent contractor relationship between contracting parties and the Remarketing Agent acts as an independent broker-dealer and exercises its own independent judgment in connection with its rights and duties as Remarketing Agent.]

(a) Determination of Interest Rates. The Remarketing Agent shall determine the interest rates on the Bonds in the manner and at the times specified therefor in the Indenture.

(b) Remarketing of Tendered Bonds.

(i) The Remarketing Agent shall use its best efforts to remarket Bonds to be purchased as described in the Indenture.

(ii) The Remarketing Agent

(A) will suspend its remarketing efforts upon the receipt of notice of the occurrence of an event of default under the Indenture (as defined in the Indenture), which suspension will continue for so long as such event of default shall continue (the Remarketing Agent being under no obligation to determine when such event of default shall cease); and

(B) may suspend its remarketing efforts immediately upon the occurrence of any of the following events, which suspension will continue so long as the situation continues to exist:

(1) there shall hereafter be placed into effect a general suspension of trading on the New York Stock Exchange or minimum or maximum prices for trading shall have been fixed and be in force, or maximum ranges for prices for securities shall have been required and be in force on the New York Stock Exchange, whether by virtue of a determination by that Exchange or by order of the United States Securities and Exchange Commission or any other governmental authority having jurisdiction;

(2) a general moratorium on commercial banking activities in New York is declared by either federal or New York State authorities;

(3) there shall have occurred any new outbreak of hostilities or any material escalation in any present hostilities or other new national or international calamity, crisis or terrorist activity, the effect of such outbreak, escalation, calamity, crisis or terrorist activity on the financial markets of the United States being such, in the judgment of the Remarketing Agent, as to substantially adversely affect the marketability of the Bonds;

(4) legislation shall be introduced by committee, by amendment or otherwise, in, or be enacted by, the House of Representatives or the Senate of the Congress of the United States, or a decision by a court of the United States shall be rendered, or a stop order, ruling, regulation or official statement by, or on behalf of, the United States Securities and Exchange Commission or other governmental agency having jurisdiction of the subject matter shall be made or proposed, to the effect that the offering or sale of obligations of the general character of the Bonds, as contemplated hereby, is or would be in violation of any provision of the Securities Act of 1933, as amended (the "Securities Act") and as then in effect, or the Securities Exchange Act of 1934, as amended (the "Exchange Act") and as then in effect, or the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act") and as then in effect, or with the purpose or effect of otherwise

prohibiting the offering or sale of obligations of the general character of the Bonds, or the Bonds, as contemplated hereby;

(5) any event shall occur or information shall become known, which, in the Remarketing Agent's reasonable opinion, makes untrue, incorrect or misleading in any material respect any statement or information contained in the disclosure documents provided to the Remarketing Agent in connection with the performance of its duties hereunder, whether provided pursuant to Section 5 or otherwise, or causes such documents to contain an untrue, incorrect or misleading statement of a material fact or to omit to state a material fact required to be stated therein or necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading;

(6) any governmental authority shall impose, as to the Bonds, or obligations of the general character of the Bonds, any material restrictions not now in force, or increase materially those now in force;

(7) any of the representations and warranties of the Issuer made hereunder shall not have been true and correct on the date made;

(8) the Issuer fails to observe any of the covenants or agreements made herein;

(9) any of the rating agencies then rating the Bonds shall downgrade the ratings assigned to the Bonds, which, in the reasonable judgment of the Remarketing Agent, materially adversely affects the market for the Bonds;

(10) legislation shall have been enacted by the Congress of the United States, or shall have been reported out of committee of either body or be pending in committee of either body, or a decision shall have been rendered by a court of the United States, the Tax Court of the United States or a court of the District of Columbia, or a ruling shall have been made or a regulation or temporary regulation shall have been issued by the Treasury Department of the United States or the Internal Revenue Service or other federal authority, with respect to federal taxation upon revenues or other income of the general character to be derived by the Authority, or upon interest received on obligations of the general character of the Bonds, which, in the reasonable judgment of the Remarketing Agent, materially adversely affects the market for the Bonds;

(11) in the reasonable judgment of the Remarketing Agent, the market price or marketability of the Bonds or the ability of the Remarketing Agent to enforce contracts for the sale of Bonds shall have been materially adversely affected by an amendment of or supplement to the Official Statement, notwithstanding the Remarketing Agent's approval of such amendment or supplement prior to its distribution;

(12) an actual or imminent default or a moratorium in respect of payment of any U.S. Treasury bills, bonds or notes the effect of which in either Remarketing Agent's judgment makes it impractical to market the Bonds or to enforce contracts for the sale of the Bonds; or

(13) [there shall have occurred any materially adverse change in the affairs of financial condition of the Authority.]

Section 4. Resignation and Removal of Remarketing Agent: Termination Events. The Remarketing Agent may at any time resign and be discharged of its duties and obligations hereunder upon providing the Trustee, the Issuer, the Tender Agent, and each Rating Agency with [sixty (60)] days' prior written notice. The Remarketing Agent may be removed at any time, at the direction of the Trustee, the Paying Agent, and the Issuer upon [fifteen (15)] days' prior written notice to the Remarketing Agent; provided, however, that no such removal shall be or become effective unless and until a successor Remarketing Agent shall have been appointed and accepted such appointment in accordance with the Indenture. Upon removal or resignation of the Remarketing Agent, the Issuer shall promptly cause the Paying Agent to give notice thereof by mail to all Bondholders and to any rating agency which has assigned a rating to the Bonds. The Remarketing Agent shall assign and deliver this Agreement to its successor, if any.

In addition to its ability to suspend its remarketing efforts as set forth above under Section 3(b)(ii)(B)(9), the Remarketing Agent may, upon notice to the Issuer, cease offering and selling the Bonds with immediate effect if any of the rating agencies then rating the Bonds shall downgrade the ratings assigned to the Bonds, which, in the reasonable judgment of the Remarketing Agent, materially adversely affects the market for the Bonds. The Remarketing Agent shall also have the right to immediately terminate this Agreement if there is a down-rating below Baa3/BBB- or withdrawal of the rating on the Bonds.

Following termination, the provisions of Section 6 hereof will continue in effect as to transactions prior to the date of termination, and each party will pay the other party any amounts owing at the time of termination.

Section 5. Disclosure Materials.

(a) General. If the Remarketing Agent determines that it is necessary or desirable to use an official statement or other disclosure document in connection with its remarketing of the Bonds, the Remarketing Agent will notify the Issuer which will provide the Remarketing Agent with a disclosure document in respect of the Bonds satisfactory to the Remarketing Agent and its counsel. The Issuer will supply the Remarketing Agent with such

number of copies of the disclosure document as the Remarketing Agent requests from time to time and the Issuer will amend the document (and all documents incorporated by reference) so that at all times the document will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. In connection with the use of any disclosure document by the Remarketing Agent in its remarketing of the Bonds, the Issuer will furnish to the Remarketing Agent such certificates, accountants' letters and opinions of counsel as the Remarketing Agent reasonably requests.

(b) Compliance with Rule 15c2-12. In the event the Remarketing Agent is asked to remarket the Bonds in any situation which requires compliance with Rule 15c2-12 of the Exchange Act (the "Rule"),

(i) the Issuer will provide the Remarketing Agent with an official statement or other disclosure document in connection with its remarketing of the Bonds which the Issuer deems final as of its date (exclusive of pricing and other sales information), prior to the date the Remarketing Agent bids for, offers or sells any Bonds;

(ii) the Issuer will provide the Remarketing Agent with such number of copies of any official statement or other disclosure document prepared in connection therewith, as the Remarketing Agent may need to supply at least one copy thereof to each potential customer who requests it; and

(iii) the Issuer shall provide the Remarketing Agent within seven (7) Business Days after the interest rate is determined or by the time "money confirmations" are to be sent to customers, whichever is earlier, with a number of copies of the final official statement or other disclosure document adequate to provide at least one copy of such final official statement or disclosure document to any customer or any potential customer for a period commencing on the date such final official statement or disclosure document is available and extending for the underwriting period as defined in the Rule (the "Underwriting Period") and, thereafter, for as long as may be required by the Rule. During the Underwriting Period, the Issuer agrees to update, by written supplement or amendment or otherwise, the final official statement or disclosure document such that at all times during such period the final official statement or disclosure document will not contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

Section 6. Fees and Expenses. When Bonds are remarketed in connection with the conversion of the interest rate to a Daily Rate, Weekly Rate, Long-Term Rate, Index Rate, Short-Term Rate, Term Rate or a Fixed Rate, the Issuer and the Remarketing Agent will agree on a fee.

The Issuer will pay all expenses of delivering remarketed Bonds and reimburse the Remarketing Agent for all direct, out-of-pocket expenses incurred by it as Remarketing Agent, including reasonable counsel fees and disbursements.

Section 7. Representations, Warranties, Covenants and Agreements of the Remarketing Agent. The Remarketing Agent, by its acceptance hereof, represents, warrants and covenants and agrees with the Issuer as follows:

(a) the Remarketing Agent is a member of the Financial Industry Regulatory Authority, Inc. (FINRA), having a total capitalization of at least [\$15,000,000], and otherwise meets the requirements for the Remarketing Agent set forth in the Indenture;

(b) the Remarketing Agent has been duly organized, is validly existing and is in good standing under the laws of the State of _____, and is authorized by law to perform all the duties and obligations imposed upon it as Remarketing Agent by this Agreement and the Indenture; and

(c) the Remarketing Agent has full power and authority to take all actions required or permitted to be taken by the Remarketing Agent by or under, and to perform and observe the covenants and agreements on its part contained in, this Agreement and the Indenture.

Section 8. Representations, Warranties, Covenants and Agreements of the Issuer. The Issuer, by its acceptance hereof, represents, warrants, covenants, and agrees with the Remarketing Agent that:

(a) The Issuer is a duly organized and validly existing corporate body and independent authority of the District established under the laws of the United States and the District;

(b) The Issuer has full power and authority to take all actions required or permitted to be taken by the Issuer by or under, and to perform and observe the covenants and agreements on its part contained in, this Agreement and any other instrument or agreement relating thereto to which the Issuer is a party;

(c) The Issuer has, on or before the date hereof, duly taken all action necessary to be taken by it prior to such date to authorize (i) the execution, delivery and performance of this Agreement and any other instrument or agreement to which the Issuer is a party and which has been or will be executed in connection with the transactions contemplated by the foregoing documents; and (ii) the carrying out, giving effect to, consummation and performance of the transactions and obligations contemplated by the foregoing agreements and by the Official Statement; and

(d) The Issuer will promptly notify the Remarketing Agent by Electronic Means of any material adverse changes that may affect the remarketing of the Bonds or any fact or circumstance which may constitute, or with the passage of time will constitute, an event of default under the Indenture.

Section 9. Compliance with MSRB Rule G-34(c).

(a) The Issuer agrees that it shall provide the following to the Remarketing Agent to assist in complying with its obligations under MSRB Rule G-34(c):

(i) on the effective date of this Remarketing Agreement, a copy of each executed and currently effective Rule G-34 Document;

(ii) no later than ten (10) Business Days prior to the proposed date of any amendment, extension or renewal, replacement or termination of any of the then current Rule G-34 Documents, written notice that such document is proposed to be amended, extended, renewed, replaced or terminated, as the case may be, and the expected date of execution and delivery of such amendment, extension, renewal, replacement or termination, as the case may be;

(iii) within one (1) Business Day after the execution and delivery of any amendment, extension, renewal, replacement or termination, as the case may be, of any of the then current Rule G-34 Documents, a copy thereof; and

(iv) no later than three (3) Business Days after receiving a request from the Remarketing Agent for any Rule G-34 Document, a copy thereof.

In each instance that Rule G-34 Documents are delivered to the Remarketing Agent pursuant to this Section 9(a), the Issuer shall provide: (A) a clean final execution copy of each relevant document; and (B) in any such document where any redactions are made, (x) a redacted final execution copy of document, and (y) a file containing a list showing all redactions that have been made to such document.

(b) If the Issuer determines that any information in the Rule G-34 Documents is confidential or proprietary, the Issuer shall discuss such information and the potential redaction thereof with the Remarketing Agent and its counsel to ensure compliance with MSRB Rule G-34(c).

(c) In the event that the Issuer does not provide the Remarketing Agent with a copy of a document described in Section 9(a) above, the Issuer acknowledges that the Remarketing Agent may file a notice with the SHORT System that such document will not be provided at such times as specified by the MSRB and in the SHORT System users manual.

(d) The Issuer will hold harmless the Remarketing Agent with respect to any confidential or proprietary information that is made public when the Remarketing Agent files the Rule G-34 Documents with the SHORT System.

(e) If there are any additional regulatory requirements, amendments or modifications to the securities laws with which the Remarketing Agent must comply, the Issuer shall take all steps reasonably requested by the Remarketing Agent or its counsel necessary to comply with such additional requirements.

(f) The Issuer shall reimburse the Remarketing Agent for any costs incurred in connection with compliance with MSRB Rule G-34(c) including, but not limited to, fees charged by trustees or other parties supplying missing documents.

Section 10. Term of Agreement. This Agreement shall become effective on the date hereof and shall continue in full force and effect until the payment in full of the Bonds

or the earlier conversion of all Bonds to the Fixed Rate, subject to the right of termination as provided herein.

Section 11. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the District applicable to agreements made and to be performed in the District. The parties all agree that all actions and proceedings arising out of this Agreement or any of the transactions contemplated hereby shall be brought exclusively in the District and, in connection with any such action or proceeding, submit to the exclusive jurisdiction of, and venue in, federal or state courts located in the District.

Section 12. Dealing in Bonds by the Remarketing Agent; not an Advisor.

(a) The Remarketing Agent, in its individual capacity, may in good faith buy, sell, own, hold and deal in any of the Bonds, including, without limitation, any Bonds offered and sold by the Remarketing Agent pursuant to this Agreement, and may join in any action which any Owner may be entitled to take with like effect as if it did not act in any capacity hereunder. The Remarketing Agent may sell any of such Bonds at prices above or below par, at any time. The Remarketing Agent, in its individual capacity, either as principal or agent, may also engage in or be interested in any financial or other transaction with the Issuer and may act as depository, trustee, or agent for any committee or body of Owners or other obligations of the Issuer as freely as if it did not act in any capacity hereunder.

(b) Nothing in this Agreement shall be deemed to constitute the Remarketing Agent an underwriter of the Bonds or to obligate the Remarketing Agreement to purchase any Bonds at any time.

(c) The Issuer acknowledges and agrees that: (i) the Remarketing Agent has been engaged to remarket the Bonds hereunder and that the transactions contemplated by this Agreement are arm's length, commercial transactions between the Issuer and the Remarketing Agent and it is not acting as a municipal advisor, financial advisor or fiduciary to the Issuer and that the Remarketing Agent has financial and other interests that differ from those of the Issuer; (ii) the Remarketing Agent has not assumed any advisory or fiduciary responsibility to the Issuer with respect to the transactions contemplated hereby and the discussions, undertakings and procedures leading thereto (irrespective of whether the Remarketing Agent has provided other services or is currently providing other services to the Issuer on other matters); (iii) the only obligations the Remarketing Agent has to the Issuer with respect to the transactions contemplated hereby expressly are set forth in this Agreement; and (iv) the Issuer has consulted its own legal, accounting, tax, financial and other advisors, as applicable, to the extent it has deemed appropriate. If the Issuer would like a municipal advisor in this transaction that has legal fiduciary duties to the Issuer, then the Issuer is free to engage a municipal advisor to serve in that capacity.

Section 13. Intention of Parties. It is the express intention of the parties hereto that any purchase, sale or transfer of any Bonds, as herein provided, shall not constitute or be construed to be the extinguishment of any Bonds or the indebtedness represented thereby or the reissuance of any Bonds.

Section 14. Waiver of Trial by Jury. Each of the parties hereto also irrevocably waives all right to trial by jury in any action, proceeding or counterclaim arising out of this Agreement or the transactions contemplated hereby.

Section 15. Miscellaneous.

(a) Except as otherwise specifically provided in this Agreement, all notices, demands and formal actions under this Agreement shall be in writing and either (i) hand-delivered, (ii) sent by electronic means, or (iii) mailed by registered or certified mail, return receipt requested, postage prepaid, to:

The Remarketing Agent:

RBC Capital Markets, LLC,
200 Vesey Street
9th Floor
New York, New York

Attention:
Telephone:
Telecopy:
Email:

The Issuer: District of Columbia Water and Sewer Authority
1385 Canal Street S.E.
Washington, D.C. 20003
Attention: Chief Financial Officer and Executive
Vice President Finance and Procurement
Telephone: 202-787-2000
Telecopy: 202-787-2333

Tender Agent and
Trustee: Computershare Trust Company, N.A.

Attention: Corporate Trust Services
Telephone:

The Remarketing Agent, the Issuer, the Trustee and the Tender Agent may, by notice given under this Agreement, designate other addresses to which subsequent notices, requests, reports or other communications shall be directed.

(b) This Agreement shall inure to the benefit of and be binding only upon the parties hereto and their respective successors and assigns. The terms “successors” and “assigns” shall not include any purchaser of any of the Bonds merely because of such purchase. No other party shall have any rights or privileges hereunder.

(c) All of the representations and warranties of the Issuer and the Remarketing Agent in this Agreement shall remain operative and in full force and effect, regardless of (i) any investigation made by or on behalf of the Remarketing Agent or the Issuer, (ii) the offering and sale of and any payment for any Bonds hereunder or (iii) the termination or cancellation of this Agreement.

(d) This Agreement and each provision hereof may be amended, changed, waived, discharged or terminated only by an instrument in writing signed by the parties hereto.

(e) Nothing herein shall be construed to make any party an employee of the other or to establish any fiduciary relationship between the parties except as expressly provided herein.

(f) If any provision of this Agreement shall be held or deemed to be or shall, in fact, be invalid, inoperative or unenforceable for any reason, such circumstances shall not have the effect of rendering any other provision or provisions of this Agreement invalid, inoperative or unenforceable to any extent whatsoever.

(g) This Agreement may be executed in several counterparts, each of which shall be regarded as an original and all of which shall constitute one and the same document.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

By: _____
Matthew Brown
Chief Financial Officer and Executive Vice President
Finance and Procurement

RBC CAPITAL MARKETS, LLC

By: _____
Authorized Signatory

Presented and Adopted: January 6, 2022

SUBJECT: Approval of Revised “Statement of Investment Policy”

**#22-02
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

The Board of Directors (the "Board") of the District of Columbia Water and Sewer Authority, ("DC Water") at its meeting on January 6, 2022, decided by a vote of () in favor and () opposed, to approve the revised "Statement of Investment Policy".

WHEREAS, on May 1, 2014, the Board, through Resolution 14-32, approved the revised "Statement of Investment Policy" (the "Policy"), which superseded Statement of Investment Policy Resolution's #97-122, #01-17, #02-66, #07-73, and #11-103; and

WHEREAS, on December 14, 2021, the Finance and Budget Committee met to consider revisions to the Policy; and

WHEREAS, the General Manager presented and recommended revisions to the Policy to: 1) remove language prohibiting the purchase of collateralized mortgage obligation and allow for flexible maturities on agency obligations; 2) allow for foreign issuers of commercial paper, maturities of up to a year, and expand the sector limit to 50%; 3) allow "A" rated corporate notes and expand the sector limit to 40%; 4) remove permitted specific issuers of federal agency mortgage-backed securities; 5) allow "A" rated negotiable CDs for maturities over one year, and expand the sector limit to 50%; and 6) expand the sector limit to 30% for municipal obligations; and

WHEREAS, the Finance and Budget Committee, after consideration of the revisions to the Policy, recommended the Board approve the revised Statement of Investment Policy as presented in Attachment A; and

WHEREAS, on June 6, 2022, the Board, after considering the recommendation from the Finance and Budget Committee and the General Manager, approved the revised Statement of Investment Policy as presented in Attachment A.

NOW THEREFORE BE IT RESOLVED THAT:

1. The Board hereby approves the revised Statement of Investment Policy as presented in Attachment A and
2. The Board authorizes the General Manager to implement the revised Policy.

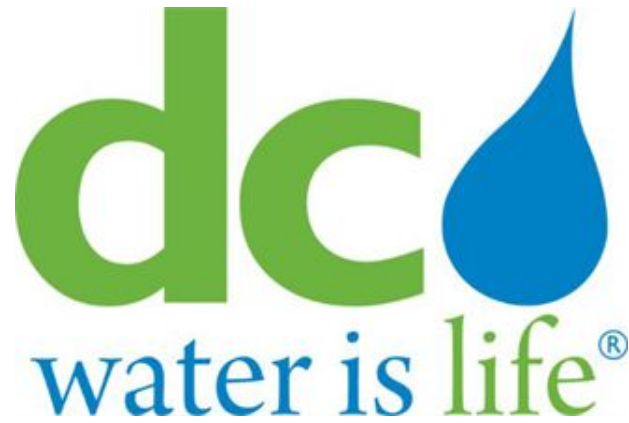
3. This resolution is effective immediately.

Secretary to the Board of Directors

Attachment A

Revised Statement of Investment Policy

District of Columbia Water and Sewer Authority
Statement of Investment Policy



Revised December 14, 2021

District of Columbia Water and Sewer Authority

Statement of Investment Policy

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District of Columbia Water and Sewer Authority

Statement of Investment Policy

Purpose

The purpose of this document is to set forth the investment and operational policies for the management of public funds of the District of Columbia Water and Sewer Authority (“DC Water” or “Authority”).

These policies are designed to ensure the prudent management of Authority funds, the availability of operating and capital funds when needed, and an investment return competitive with comparable funds and financial market indices.

It shall be the policy of DC Water that all investments and investment practices meet or exceed all laws and regulations governing the investment of DC Water funds and any investment restrictions imposed by bond covenants held by DC Water. Further, accounting for DC Water Portfolio shall be consistent with guidelines of the Governmental Accounting Standards Board (GASB).

Scope of the Investment Policy

This investment policy is a comprehensive one that governs the overall administration and investment management of those monies held in DC Water’s investment portfolio. This policy shall apply to such monies from the time of receipt until the time the monies ultimately leave DC Water’s accounts. These monies include, but are not limited to, all operating funds, debt service funds, capital project funds, and grant money.

The guidance set forth herein is to be strictly followed by all those responsible for any aspect of the management or administration of these monies.

Investment Objectives

DC Water’s Portfolio shall be managed to accomplish the following hierarchy of objectives:

- i) **Safety** – The safeguarding of principal shall be the foremost objective of the investment program, and other objectives shall be subordinated to the attainment of this objective.
- ii) **Liquidity** – The investment portfolio shall be managed at all times with sufficient liquidity to meet all daily and seasonal needs, as well as special projects and other operational requirements either known or which might reasonably be anticipated.
- iii) **Return on Investment** – The investment portfolio shall be managed with the objective of obtaining no worse than a market rate of return over the course of budgetary and economic cycles, taking into account the constraints contained herein and the cash flow patterns of DC Water.

Delegation of Authority

DC Water Board of Directors grants authority for the management of the investment program and for the investment of funds (within the constraints set by this policy) to the CEO and General Manager (“GM”). By letter of delegation, the GM may delegate responsibility for managing the investment program to a designee. The GM or designee shall establish written procedures for the operation of the investment program consistent with this investment policy. Procedures should include references to safekeeping,

delivery vs. payment, investment accounting, repurchase agreements, wire transfer agreements, collateral/depository agreements and banking services contracts.

Standard of Prudence

The standard of prudence to be applied to the investment of DC Water's Portfolio shall be the "Prudent Person" rule that states:

"Investments shall be made with judgment and care, under circumstances then prevailing which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived."

Ethics and Conflict of Interest

Consistent with any DC Water policies on ethics, employees involved in the investment process shall refrain from personal business activity that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions. Employees shall disclose any material interests in financial institutions with which they conduct business. They shall further disclose any personal financial positions that could be related to the performance of the investment portfolio. Employees shall not undertake personal investment transactions with the same individual with whom business is conducted on behalf of DC Water.

Authorized Investments

DC Water shall be permitted to invest in any of the following securities subject to the ratings requirements and/or maturity limitations which are established to help mitigate investment risks. For all security types the "time of purchase" is defined as the settlement date of any investment transaction. The ratings requirements establish minimum permitted ratings and are included without regards to any rating modifier.

- A) **U.S. Treasury Obligations.** United States Treasury bills, notes, or any other obligation or security issued by or backed by the full faith and credit of the United States Treasury.
- B) **Registered Investment Companies (Mutual Funds.)** Shares in open-end, no-load investment funds provided such funds are registered under the Federal Investment Company Act of 1940 and invest exclusively in the securities permitted under this investment policy provided that the fund is rated AAAM or AAAM-G or the equivalent by a NRSRO. The mutual fund must comply with the diversification, quality and maturity requirements of Rule 17 C.F.R. § 270.2a-7, or any successor rule, of the United States Securities and Exchange Commission.

Before investing in any mutual fund, the GM or designee will obtain a copy of the fund's prospectus and review permitted investments, fees, and management.

- C) **Repurchase Agreements.** Contracts for the present purchase and subsequent resale at a specified time in the future of specific securities at specified prices at a price differential representing the interest income to be earned by DC Water. Such contracts shall be invested in only if the following conditions are met:
 - 1) the Repurchase Agreement has a term to maturity of no greater than ninety (90) days;
 - 2) the contract is fully secured by deliverable U.S. Treasury and Federal Agency obligations as described in (A) and (B) above (without limit to maturity), having a market value at all times of at least one hundred two percent (102%) of the amount of the contract;

- 3) a Master Repurchase Agreement or specific written Repurchase Agreement governs the transaction;
 - 4) the securities are held free and clear of any lien by an independent third party custodian acting solely as agent for DC Water, provided such third party is not the seller under the repurchase agreement;
 - 5) a perfected first security interest under the Uniform Commercial Code in accordance with book entry procedures prescribed at 31 C.F.R. §§306.1 et seq. or 31 C.F.R. §§350.0 et seq. in such securities is created for the benefit of DC Water;
 - 6) for repurchase agreements with terms to maturity of greater than one (1) day, DC Water will value the collateral securities daily and require that if additional collateral is required then that collateral must be delivered within one business day (if a collateral deficiency is not corrected within this time frame, the collateral securities will be liquidated);
 - 7) the counterparty is a:
 - a) primary government securities dealer who reports daily to the Federal Reserve Bank of New York, or
 - b) a bank, savings and loan association, or diversified securities broker-dealer having \$5 billion in assets and \$500 million in capital and subject to regulation of capital standards by any state or federal regulatory agency; and
 - 8) the counterparty meets the following criteria:
 - a) has long-term credit rating of at least AA or the equivalent from a Nationally Recognized Statistical Rating Organization (“NRSRO”),
 - b) has been in operation for at least 5 years, and
 - c) is reputable among market participants.
- D) **Federal Agency Obligations.** Bonds, notes, debentures, or other obligations or securities issued by a federal government agency or instrumentality, with a rating of at least AA or equivalent from two (2) NRSROs.
- E) **Bankers’ Acceptances** issued by a domestic bank or a federally chartered domestic office of a foreign bank, which are eligible for purchase by the Federal Reserve System may be purchased if the following conditions are met:
 - 1) the maturity is no greater than one hundred-eighty days (180); and
 - 2) the short-term paper of which is rated not lower than A-1 or the equivalent by a NRSRO.
- F) **Commercial Paper.** Unsecured short-term debt of corporations may be purchased if the following conditions are met:
 - 1) the maturity is no greater than one (1) year
 - 2) the issuing corporation, or its guarantor, has a short-term debt rating of no less than A-1 (or its equivalent) by at least two of the NRSROs; and
 - 3) the total holdings of an issuer’s paper do not represent more than ten percent (10%) of the issuing corporation’s total outstanding commercial paper.
- G) **Collateralized Certificates of Deposit** in state chartered banks or federally chartered banks. Deposits with savings and loans associations or District and Federal Credit Unions shall not exceed the greater of the total net worth or \$500,000. Collateralized Certificates of Deposit shall be collateralized at 102%. Please refer to the DC Water’s collateralization policies under Collateralization of Bank Deposits.
- H) **Corporate Notes:** High quality corporate notes that meet the following criteria:
 - 1) a rating of at least A (or its equivalent) from at least two NRSROs; and
 - 2) the final maturity shall not exceed a period of five (5) years from the time of purchase.

- I) **FDIC insured Certificates of Deposit** obtained thru Certificate of Deposit placement services including the Certificate of Deposit Account Registry Service (CDARS).
- J) **Federal Agency Mortgage-Backed Securities** that meet the following criteria:
 - 1) a rating of at least AA (or its equivalent) by two NRSROs.
 - 2) the weighted average life (WAL) shall not exceed a period of five (5) years from the time of purchase.
- K) **Negotiable Certificates of Deposit and Bank Deposit Notes** of domestic banks and domestic offices of foreign banks with:
 - 1) ratings of at least A-1 (or its equivalent) by two NRSROs for maturities of one (1) year or less; and
 - 2) a rating of at least A (or its equivalent) from at least two NRSROs for maturities over one (1) year; and
 - 3) the final maturity shall not exceed a period of five (5) years from the time of purchase.
- L) **Supranational Bonds:** Obligations, participations or other instruments of any Federal agency, instrumentality or United States government-sponsored enterprise, including those issued or fully guaranteed as to the principal and interest by Federal agencies, instrumentalities or United States government sponsored enterprises, provided that:
 - 1) at time of purchase the maturity does not to exceed five (5) years; and
 - 2) have a rating of at least A (or its equivalent) from at least two NRSROs.
- M) **Municipal Obligations.** Bonds, notes and other evidences of indebtedness of the District of Columbia, or of any state or local government upon which there is no default that meet the following criteria:
 - 1) have a final maturity on the date of investment not to exceed five (5) years.
 - 2) a rating of at least AA (or its equivalent) by two NRSROs; and
 - 3) the total holdings of any single issue do not represent more than 25% of the total issue.

The monies of individual funds may be commingled for investment purposes. Investment income will be allocated to the various funds based on their respective participation and in accordance with generally accepted accounting principles.

Prohibited Investments and Investment Practices

DC Water is prohibited from:

- 1) Investment in reverse repurchase agreements;
- 2) Short sales (selling a specific security before it has been legally purchased);
- 3) Borrowing funds for the sole purpose of reinvesting the proceeds of such borrowing;
- 4) Investment in complex derivatives such as range notes, dual index notes, inverse floating rate notes and deleveraged notes, or notes linked to lagging indices or to long-term indices.
- 5) Investing in any security not specifically permitted by this Policy.

Collateralization of Bank Deposits

DC Water requires that all cash and other deposits maintained in any financial institution be collateralized, including bank deposits and collateralized certificates of deposit. Collateral will be secured in accordance with the following policy:

- 1) collateralization on all deposits of DC Water monies in excess of the amount protected by federal deposit insurance,
- 2) collateralization with any of the following (i) U.S. Treasury obligations, (ii) Federal Agency obligations, or (iii) a Letter of Credit issued by a Federal Home Loan Bank the amount of which shall be 102% of the deposits held.

In order to anticipate market changes and provide a level of security for all monies, the collateralization level shall be 102% of the market value of principal, plus accrued interest or as required by the terms of outstanding DC Water bond issues, municipal bond insurance policies and/or other financing agreements, which may pertain to DC Water's monies. Collateral shall always be held by an independent third-party custodian. A clearly marked evidence of ownership (safekeeping receipt) must be supplied to DC Water and retained by the GM or designee. The right of collateral substitution is allowed.

Portfolio Diversification

DC Water's Portfolio shall be diversified by security type and institution. The maximum percentage of the portfolio (book value at the date of acquisition) permitted in each eligible security is as follows:

Permitted Investment	Sector Limit	Issuer Limit
Collateralized Bank Deposits	100%	100%
A. U.S. Treasury Obligations	100%	100%
B. Registered Money Market Mutual Funds	100%	50%
C. Repurchase Agreements	100%	50%
D. Federal Agency Obligations	80%	40%
E. Bankers' Acceptances	40%	5%
F. Commercial Paper	50%	5%
G. Collateralized Certificates of Deposit	30%	5%
H. Corporate Notes	40%	5%
I. FDIC-Insured Certificates of Deposit	30%	5%
J. Mortgage Backed Securities	30%	5%
K. Negotiable Certificates of Deposit	50%	5%
L. Supranational Bonds	30%	5%
M. Municipal Obligations	30%	5%

Maximum Maturity

Maintenance of adequate liquidity to meet the cash flow needs of DC Water is essential. Accordingly, the portfolio will be structured in a manner that ensures sufficient cash is available to meet anticipated liquidity needs. Selection of investment maturities must be consistent with the cash requirements of DC Water in order to avoid the forced sale of securities prior to maturity.

For purposes of this Investment Policy, assets of DC Water shall be segregated into three categories based on expected liquidity needs and purposes — short-term operating monies, the core portfolio and bond proceeds.

Short-Term Operating Monies. Assets categorized as short-term monies will be invested in permitted investments maturing in twelve (12) months or less. Because of inherent difficulties in accurately forecasting cash flow requirements, a portion of the portfolio will be continuously invested in readily available funds such as money market mutual funds or overnight repurchase agreements to ensure that appropriate liquidity is maintained to meet ongoing obligations.

Core Portfolio. To control the volatility of the core portfolio, the GM or designee will determine a duration target, not to exceed three (3) years.

Bond Proceeds. Proceeds from the sale of bonds will be invested in compliance with the specific requirements of the bond covenants without further restriction as to the maximum term to maturity of securities purchased. However, in no case will bond proceeds be invested in securities with a term to maturity that exceeds the expected disbursement date of those monies. Reserve funds and other funds with longer-term investment horizons may be invested in securities exceeding five (5) years if the maturity of such investment is made to coincide as nearly as practicable with the expected use of funds. The intent to invest in securities with longer maturities shall be disclosed in writing to the Budget and Finance Committee.

Selection, Approval of Brokers, Qualified Financial Institutions

The GM or designee shall maintain a list of financial institutions and broker/dealers that are approved for investment purposes (“Qualified Institutions”). All Qualified Institutions who desire to provide investment services to DC Water will be provided with current copies of DC Water’s Investment Policy. Receipt of this policy, including confirmation that it has been reviewed by persons dealing directly with DC Water, will be received prior to any organization providing investment services to the DC Water.

Qualified Institutions should supply the GM or designee with information sufficient to adequately evaluate the financial capacity and creditworthiness of the firm. The following information should be provided: (i) audited financial statements, (ii) regulatory reports on financial condition, (iii) proof of National Association of Security Dealers certification and proof of state registration, and (iv) any additional information to allow the GM or his designee to evaluate the creditworthiness of the institution.

Only firms meeting the following requirements will be eligible to serve as broker/dealers for DC Water:

- 1) “primary” dealers and regional dealers that qualify under Securities and Exchange Commission Rule 15C3-1 (uniform net capital rule);
- 2) capital of no less than \$10,000,000;
- 3) registered as a dealer under the Securities Exchange Act of 1934;
- 4) member of the Financial Industry Regulatory Authority (FINRA);
- 5) registered to sell securities in the District of Columbia; and
- 6) the firm and assigned broker have been engaged in the business of effecting transactions in U.S. government and agency obligations for at least five (5) consecutive years.

The GM or designee shall conduct an annual review of the financial condition and registrations of Qualified Institutions.

Engagement of Investment Managers

The GM may engage one or more qualified firms to provide investment management services for DC Water. All investment management firms who desire to provide investment services will be provided with current copies of DC Water’s Investment Policy. Before an organization can provide investment services to DC Water, it must confirm in writing that it has received and reviewed this Policy. The GM or his designee will conduct appropriate due diligence in the selection of qualified investment management

firms and will periodically confirm a manager's qualifications by periodically visiting that manager's operational facilities that provide services to DC Water.

Only firms meeting the following requirements will be eligible to serve as an investment manager:

- 1) Registered with the SEC under the Investment Advisers Act of 1940;
- 2) Registered to conduct business in the District of Columbia;
- 3) Have proven experience in providing investment management services to entities with similar investment objectives as DC Water.

Any firm engaged by DC Water to provide investment services will:

- 1) Provide to DC Water an annual updated copy of Form ADV, Part II;
- 2) Maintain a list of approved security brokers/dealers selected by creditworthiness who are authorized to provide investment services in the District of Columbia;
- 3) Provide monthly reports of transactions and holdings to the GM or his designee;
- 4) Provide quarterly performance reports that display investment performance in comparison to DC Water's investment benchmarks;
- 5) Periodically show that the manager has solicited at least three bids for any security purchased or sold on behalf of DC Water; and
- 6) Not collect any soft dollar fees from any broker/dealer or other financial firm in relation to services provided to DC Water.

Competitive Selection of Investment Instruments

It will be the policy of DC Water to transact all securities purchases and sales only with Qualified Institutions through a formal and competitive process requiring the solicitation and evaluation of at least three bids/offers. Electronic bids will be accepted. DC Water may also purchase or sell securities using electronic trading systems. The DC Water will accept the bid which (a) offers the highest rate of return within the maturity required; and (b) optimizes the investment objective of the overall portfolio. When selling a security, DC Water will select the bid that generates the highest sale price.

Primary fixed price Federal Agency offerings may be purchased from the list of Qualified Institutions without competitive solicitation if it is determined that no Agency obligations meeting DC Water's requirements are available in the secondary market at a higher yield.

Investment of Bond Proceeds

DC Water will comply with all applicable sections of the Internal Revenue Code of 1986, Arbitrage Rebate Regulations and bond covenants with regard to the investment of bond proceeds. Accounting records will be maintained in a form and for a period of time sufficient to document compliance with these regulations.

Safekeeping and Custody

All investment securities purchased by DC Water or held as collateral on deposits or investments shall be held by DC Water or by a third-party custodial agent who may not otherwise be counterparty to the investment transaction.

All securities in DC Water's Portfolio shall be held in the name of DC Water and will be free and clear of any lien. Further, all investment transactions will be conducted on a delivery-vs.-payment basis. The custodial agent shall issue a safekeeping receipt to DC Water listing the specific instrument, rate, maturity and other pertinent information. On a monthly basis, the custodial agent will also provide reports that list all securities held for DC Water, the book value of holdings and the market value as of month-end.

Appropriate DC Water officials and representatives of the custodial agent responsible for, or in any manner involved with, the safekeeping and custody process of DC Water shall be bonded in such a fashion as to protect DC Water from losses from malfeasance and misfeasance.

Internal Controls

The GM or designee shall establish a system of internal controls governing the administration and management of DC Water's Portfolio, and these controls shall be documented in writing. Such controls shall be designed to prevent and control losses of DC Water monies arising from fraud, employee error, misrepresentation by third parties, unanticipated changes in financial markets, or imprudent actions by any personnel. DC Water shall establish an annual process of independent review by an external auditor. This review will provide internal control by assuring compliance with policies and procedures.

Performance Standards

The investment portfolio shall be designed and managed with the objective of obtaining a market rate of return throughout budgetary and economic cycles, commensurate with the investment risk constraints and cash flow needs of DC Water. The return on DC Water investments will be compared to an index of U.S. Treasury securities having a similar duration or other appropriate benchmark on a quarterly basis. For funds having a duration or weighted average maturity of greater than 90 days, performance will be computed on a total return basis.

Reporting

On a monthly basis, the GM or designee will submit an investment report to the Finance & Budget Committee. This investment report shall include: (i) a listing of the existing portfolio in terms of investment securities, maturity date, yield, market value and other features deemed relevant, (ii) the total investment earnings for the reporting period, (iii) a listing of all transactions executed during the quarter, and (iv) a statement on compliance with this Policy and any applicable bond resolutions.

Investment Policy Adoption

This policy is adopted by the Board of Directors of the District of Columbia Water and Sewer Authority this 6th day of January 2022.

Glossary

Agencies: Federal agency securities and/or government-sponsored enterprises.

Bankers' Acceptance: A draft or bill or exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill, as well as the issuer.

Benchmark: A comparative base for measuring the performance or risk tolerance of the investment portfolio. A benchmark should represent a close correlation to the level of risk and the average duration of the portfolio's investments.

Broker: A broker brings buyers and sellers together for a commission.

Certificate of Deposit (CD): A time deposit with a specific maturity evidenced by a Certificate. Large-denomination CD's are typically negotiable.

Collateral: Securities, evidence of deposit or other property, which a borrower pledges to secure repayment of a loan. Also refers to securities pledged by a bank to secure deposits of public monies.

Dealer: A dealer, as opposed to a broker, acts as a principal in all transactions, buying and selling for his own account.

Delivery versus Payment: There are two methods of delivery of securities: delivery versus payment and delivery versus receipt. Delivery versus payment is delivery of securities with an exchange of money for the securities. Delivery versus receipt is delivery of securities with an exchange of a signed receipt for the securities.

Diversification: Dividing investment funds among a variety of securities offering independent returns.

Liquidity: A liquid asset is one that can be converted easily and rapidly into cash without a substantial loss of value. In the money market, a security is said to be liquid if the spread between bid and asked prices is narrow and reasonable size can be done at those quotes.

Market Value: The price at which a security is trading and could presumably be purchased or sold.

Master Repurchase Agreement: A written contract covering all future transactions between the parties to repurchase—reverse repurchase agreements that establishes each party's rights in the transactions. A master agreement will often specify, among other things, the right of the buyer-lender to liquidate the underlying securities in the event of default by the seller borrower.

Maturity: The date upon which the principal or stated value of an investment becomes due and payable.

Nationally Recognized Statistical Rating Organization (NRSRO): A credit rating agency which issues credit ratings that the U.S. Securities and Exchange Commission (SEC) permits other financial firms to use for certain regulatory purposes.

Portfolio: Collection of securities held by an investor.

Primary Dealer: A group of government securities dealers who submit daily reports of market activity and positions and monthly financial statements to the Federal Reserve Bank of New York and are subject

to its informal oversight. Primary dealers include Securities and Exchange Commission (SEC)-registered securities broker-dealers, banks, and a few unregulated firms.

Rating: An assessment provided by a NRSRO of an issuer's capability of repaying its short-term and longer-term debt obligations. A rating may be assigned by an NRSRO at the issuer or issue level and a rating may be further enhanced by a rating modifier.

Repurchase Agreement (RP or REPO): A holder of securities sells these securities to an investor with an agreement to repurchase them at a fixed price on a fixed date. The security "buyer" in effect lends the "seller" money for the period of the agreement, and the terms of the agreement are structured to compensate him for this. Dealers use RP extensively to finance their positions.

Securities and Exchange Commission (SEC): Agency created by Congress to protect investors in securities transactions by administering securities legislation.

Treasury Bills: A non-interest bearing discount security issued by the U.S. Treasury to finance the national debt. Most bills are issued to mature in three months, six months, or one year.

Treasury Bonds: Long-term coupon-bearing U.S. Treasury securities issued as direct obligations of the U.S. Government and having initial maturities of more than 10 years.

Treasury Notes: Medium-term coupon-bearing U.S. Treasury securities issued as direct obligations of the U.S. Government and having initial maturities from two to 10 years.

Uniform Net Capital Rule: Securities and Exchange Commission requirement that member firms as well as nonmember broker-dealers in securities maintain a maximum ratio of indebtedness to liquid capital of 15 to 1; also called net capital rule and net capital ratio. Indebtedness covers all money owed to a firm, including margin loans and commitments to purchase securities, one reason new public issues are spread among members of underwriting syndicates. Liquid capital includes cash and assets easily converted into cash.

Yield: The rate of annual income return on an investment, expressed as a percentage. Income/current yield is obtained by dividing the current dollar income by the current market price for the security. Net yield or yield to maturity is the current income yield minus any premium above par or plus any discount from par in purchase price, with the adjustment spread over the period from the date of purchase to the date of maturity of the bond.

Presented and Adopted: January 6, 2022
Subject: Approval to Publish the Notice of Final Rulemaking to Amend DC Water's Local Limits and Non-Wastewater Flow Regulations in 21 DCMR Chapter 15

#22-03
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors (the "Board") of the District of Columbia Water and Sewer Authority, ("DC Water") at its meeting on January 6, 2022, upon consideration of a joint-use matter, decided by a vote of () in favor and () opposed, to approve the following action with respect to publication of Notice of Final Rulemaking to amend DC Water's Local Limits and Non-Wastewater Flow regulations in 21 DCMR Chapter 15.

WHEREAS, on September 23, 2021, the Environmental Quality and Operations Committee met to consider amendments to DC Water's pretreatment regulations promulgated in 21 DCMR Chapter 15, Discharges to Wastewater System; and

WHEREAS, in accordance Part IV.A.5 National Pollutant Discharge Elimination System Permit (NPDES Permit) issued by the U.S. Environmental Protection Agency (EPA) Region III, effective August 26, 2018, DC Water is required to conduct and submit a local limits headworks analysis and within six (6) months of EPA's approval, adopt the revised local limits and notify all contributing municipalities of the need to adopt those revised local limits; and

WHEREAS, DC Water completed its local limits headworks and submitted a draft and final report to EPA on February 28, 2020, and July 19, 2021, respectively, which EPA approved on August 3, 2021; and

WHEREAS, based on the headworks analysis, DC Water proposed the following amendments to DC Water's local limits to establish:

1. More stringent limits for arsenic, molybdenum, silver, and cyanide;
2. Less stringent limits for cadmium, mercury, and nickel;
3. No changes to the limits for copper, lead, zinc, petroleum oil and grease, and PCBs; and
4. A new limit for selenium.

WHEREAS, DC Water also proposed the following amendments to the wastewater flow regulations to:

1. Change the linear dimension for discharge of solids from one-inch to one-half inch;
2. Clarify the prohibition on waste from a marine holding tank to include waste from a mobile vehicle;
3. Change the upper pH limit for continuous pH monitoring from 12.5 to 12.0;
4. Permit discharges of uncontaminated non-wastewater flows from industrial processes to a sanitary sewer;
5. Permit discharges of cooling water to a sanitary sewer; and
6. Permit discharges for temporary connections to a combined sewer regardless of the proximity to a separate storm sewer.

WHEREAS, on September 23, 2021 the Environmental Quality and Operations Committee, after consideration and discussion regarding the benefits and challenges implementing the proposed amendments, recommended the Board to amend DC Water's local limits and non-wastewater flow regulations in 21 DCMR Chapter 15; and

WHEREAS, on October 7, the Board, through Resolution #21-113, approved the publication of the Notice of Proposed Rulemaking (NOPR) to amend DC Water's local limits and non-wastewater flow regulations in 21 DCMR Chapter 15; and

WHEREAS, on October 22, 2021, DC Water published the NOPR in the D.C. Register at 68 DCR 011122 to receive comments from the public on the NOPR; and

WHEREAS, on December 16, 2021, the Environmental Quality and Operations Committee met to consider comments on the NOPR and the final proposal to amend DC Water's local limits and non-wastewater flow regulations in 21 DCMR Chapter 15; and

WHEREAS, the General Manager reported to the Committee that no comments were submitted on the NOPR and no additional revisions were proposed, and after discussion with the Committee, recommended the amendments to the DC Water's local limits and non-wastewater flow regulations in 21 DCMR Chapter 15 as presented in Attachment A; and

WHEREAS, the General Manager also reported that conforming amendments are necessary to D.C. Official Code § 8-105.06(b)(2)(C) and 8-105.06(d), Wastewater System Regulation Amendment Act, to implement the increase of the linear dimension for discharge of solids from one-inch to one-half inch and to permit cooling water discharges to a sanitary sewer; and the Department of Governance and Legal Affairs will work with the Council of the District of Columbia to enact these changes; and

WHEREAS, on December 16, 2021, after considering the General Manager's recommendation, the Environmental Quality and Operations Committee recommended

the Board adopt and approve the publication of the Notice of Final Rulemaking to amend DC Water's local limits and non-wastewater flow regulations in 21 DCMR Chapter 15;

WHEREAS, on January 6, 2022, after consideration of the recommendations from the DC Water and Sewer Rates Committee and the General Manager, the Board of Directors agreed to adopt and approve the amendments to 21 DCMR Chapter 15, Discharges to Wastewater System, as presented in Attachment A – Final Rulemaking.

NOW THEREFORE BE IT RESOLVED THAT:

1. The Board adopts and approves the publication of the Notice of Final Rulemaking to amend DC Water's local limits and non-wastewater flow regulations in 21 DCMR Chapter 15, Discharge to Wastewater System, as provided in Attachment A.
2. The General Manager is authorized to take all steps necessary in his judgment and as otherwise required in accordance with the District of Columbia Administrative Procedure Act.
3. This resolution is effective immediately.

Secretary to the Board of Directors

Attachment A

21 DCMR Chapter 15, Discharges to Wastewater System is amended as follows:

1. Paragraph (c) (2) and k, Subsection 1501.4 are amended to read as follows:

1501.4 Specific Prohibitions: No User shall introduce the following pollutants into the District's wastewater system:

- (c) Solid or viscous substances in amounts which may cause, or contribute to obstruction of the flow in a sewer or otherwise interfere with the operation of the District's wastewater system, including, but not limited to:
 - (1) Substances which may solidify or become viscous at temperatures above thirty-two degrees Fahrenheit (32° F) or zero degrees Centigrade (0° C);
 - (2) Solids have any linear dimensions greater than one-half inch (1/2 in.);
- (k) Unless DC Water specifically authorizes any substance including, but not limited to:
 - (1) Septic tank sludge;
 - (2) Restaurant grease;
 - (3) Waste from a fuel service station;
 - (4) Waste from a marine or mobile vehicle holding tank; and
 - (5) Waste from a portable toilet;

2. Paragraph (a), Table I, and paragraph (b), Subsection 1501.8 are amended to read as follows:

1501.8 The following shall apply to discharges into the wastewater system:

- (a) No User shall discharge into the wastewater system arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, silver, zinc, cyanide, oil and grease (petroleum), or Polychlorinated Biphenyls (PCBs) in concentrations greater than those listed in Table I of this subsection unless authorized in writing by DC Water in a Wastewater Discharge Permit;

TABLE I

SUBSTANCE	DAILY MAXIMUM CONCENTRATION, mg/L
Arsenic (T)	0.20
Cadmium (T)	0.10
Copper (T)	2.3
Lead (T)	1.0
Mercury (T)	0.035
Molybdenum (T)	0.19
Nickel (T)	3.4
Selenium	0.25
Silver (T)	1.2
Zinc (T)	3.4
Cyanide (T)	0.31
Oil and Grease (petroleum)	100
PCBs (T)(1)	Non-detect
(T) - Total	

(1) - Total PCBs shall be measured using an EPA-approved Method in 40 CFR Part 136 with a reporting limit of at least one thousandth milligram per liter (0.001 mg/L).

- (b) Industrial Users may be required to monitor other pollutants, including, but not limited to, chromium, total toxic organics (TTO), and any other pollutants as required by DC Water;
- (c) For purposes of this subsection, "daily maximum concentration" shall be determined using grab samples for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organic compounds. For all other pollutants, the daily maximum concentration shall be determined using twenty-four (24) hour flow-proportional composite samples collected over the daily operation, unless time-proportional composite or other composite sampling or grab sampling is representative of the discharge and is authorized by DC Water in accordance with § 1507.6; and

3. Subsection 1501.9 is amended to read as follows:

1501.9 Where an Industrial User continuously measures the pH of a wastewater discharge and either voluntarily or pursuant to a requirement in a permit, the Industrial User shall maintain the pH of such wastewater within the range set forth in the permit, except excursions from the range are authorized subject to the following limitations:

- (a) No excursion below five (5.0) or above twelve (12.0) is authorized;
- (b) The total time during which the pH values are outside the permitted range of pH values shall not exceed seven (7) hours and twenty-six (26) minutes in any calendar month; and
- (c) No individual excursion from the permitted range of pH values shall exceed sixty (60) minutes.

4. Subsections 1501.14, 15, and 16 is amended to read as follows:

1501.14 [RESERVED]

1501.15 [RESERVED]

1501.16 The following shall apply to discharges of non-wastewater flows to the District's wastewater system:

- (a) All uncontaminated non-wastewater flows that do not result from an industrial process, including all storm waters (including snow melt), surface waters, ground waters, subsurface drainage (including foundation, footing, and under drainage), roof drainage, irrigation waters, diverted stream flows, or spring waters shall not be discharged to sewers specifically designated as sanitary sewers;
- (b) Whenever DC Water determines that a User is discharging uncontaminated non-wastewater flows to a sewer specifically designated as sanitary sewer, DC Water shall notify the User and require such discharge to be connected to the storm sewer system or natural outlet at the expense of the User, in accordance with District laws and regulations;
- (c) For permanent connections, if there is no separate storm sewer within one hundred feet (100 ft.) of the property line of a residential property or two hundred fifty feet (250 ft.) of a commercial property, the uncontaminated non-wastewater flows may be discharged to the combined sewer system, if authorized in writing by DC Water through approval of a District of Columbia Department of Consumer and Regulatory Affairs (DCRA) Construction Permit; and
- (d) Where combined sewers are provided, DC Water may authorize the discharge of storm water to the combined sewer system provided that:
 - (1) Where a DCRA Construction Permit is required, the post-

development peak storm water discharge to the combined sewer for the twenty-four (24) hour two (2) and fifteen (15) year frequency storm events shall be equal to or less than the peak discharge for the predevelopment condition; and

- (2) The provisions of subparagraph (d)(1) shall not apply to:
 - (A) Additions, or modifications to existing single family residential structures, detached garages, sheds, swimming pools or similar improvement; and
 - (B) Construction or grading operations or both that do not disturb more than five thousand square feet (5,000 sq. ft.) of land area, unless such construction or grading operation is part of an approved subdivision plan;
- (e) A User may petition the General Manager to reconsider DC Water's determination that their uncontaminated non-wastewater flows are discharging to a sewer specifically designated as sanitary sewer, by notifying the General Manager in writing no later than fifteen (15) days after the date of the notice issued pursuant to § 1501.16(b). The petition shall include all documents and data in support of the petition;
- (f) Upon receipt of the petition for reconsideration, the General Manager shall investigate DC Water's determination, review the supporting documentation provided, and notify the User of the results of the determinations of the General Manager; and
- (g) A User may appeal the determinations of the General Manager by filing a petition for an administrative hearing within fifteen (15) days of the date of receipt of the notice issued pursuant to § 1501.16(f). This petition shall be filed in accordance with the requirements set forth in § 1519 and 21 DCMR § 412.

1501.17 All Industrial Users shall comply with National pretreatment regulations in 40 C.F.R. Part 403 and the applicable National Categorical Pretreatment Standards set forth in 40 C.F.R. Chapter I, Subchapter N, Parts 405 through 471.

1501.18 When wastewater subject to a Categorical Pretreatment Standard is mixed with wastewater not regulated by the same Categorical Pretreatment Standard, DC Water shall impose an alternate limit in accordance with 40 C.F.R. § 403.6(e).

5. Paragraph 1509.5(a) is amended to conform to proposed amendments to 1501.14 to read as follows:

1509.5 The TDA Permit may be issued under the following conditions:

- (a) The discharge consists entirely of treated or untreated non-wastewater flows or other approved wastewater discharges and is being discharged to the combined sewer system or consists of contaminated non-wastewater flows or approved wastewater discharges to the sanitary sewer system in conformance to § 1501.16(a);

6. Section 1501.99 is amended the definition for the phrase “non-wastewater flows” to read as follows:

Non-wastewater flows – discharges that do not result from an industrial process, which include storm waters (including snow melt), surface waters, ground waters, subsurface drainage (including foundation, footing, and under drainage), roof drainage, irrigation waters, diverted stream flows, and spring waters.

Presented and Adopted: January 6, 2022
SUBJECT: Approval to Execute Change Order No. 001 of Contract No. 190020, Anchor Construction Corporation

#22-04
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 January 6, 2022, upon consideration of a non-joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Change Order No. 001 of Contract No. 190020, Anchor Construction Corporation.

Be it resolved that:

The Board of Directors hereby authorizes the CEO/General Manager to execute Change Order No. 001 of Contract No. 190020, Anchor Construction Corporation. The purpose of the change order is to increase the contract by 43% from FY20 to FY 21 due to an increase in sewer lateral replacements performed by the Sanitary Sewer Lateral Replacement Contractor due to the pandemic and not able to enter individual homes. The change order amount is \$5,000,000.

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

**CONSTRUCTION CONTRACT CHANGE ORDER:
Sanitary Sewer Lateral Replacement Contract for FY20 – FY22
(Non-Joint Use)**

Approval to execute Change Order No. 001 for \$5,000,000.00. The modification exceeds the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Anchor Construction Corporation 2254 25th Place NE Washington, DC 20018	S&J Services, Inc. Hyattsville, MD	DBE 29.9%
	AJK Enterprise LLC Washington, DC	DBE 2.2%
	R&R Contracting Utilities, Inc. Olney, MD	WBE 3.8%
	Acorn Supply & Distributing White Marsh, MD	WBE 2.3%

DESCRIPTION AND PURPOSE

Original Contract Value:	\$9,971,935.00
Value of this Change Order:	\$5,000,000.00
Cumulative CO Amount, including this CO:	\$5,000,000.00
Total Contract Value, including this CO:	\$14,971,935.00
Original Contract Time:	1095 Calendar Days (3 Years)
Time extension, this CO:	0 Calendar Days
Total CO contract time extension:	0 Calendar Days
Contract Start Date (NTP):	10-01-2019
Contract Completion Date:	09-30-2022
Cumulative CO % of Original Contract:	50.14%
Contract completion %:	72.87%

Purpose of the Contract:

To provide Indefinite Delivery and Indefinite Quantity (IDIQ) emergency and scheduled rehabilitation to the sewer lateral system on an as-needed basis during normal work hours, after-hours, weekends, and holidays. This Contract allows DC Water to strategically utilize a combination of in-house and contractor crews to respond to emergency conditions impacting the sewer lateral system and address scheduled system rehabilitation work as needed.

Original Contract Scope:

Work will be accomplished under a series of Task Orders. Each Task Order will identify the scope of work, deliverables, compensation, and schedule for performing the task.

Typical work scope includes but is not limited to:

- Emergency Repair Work of Sanitary Sewer Laterals
- Chemical Root Treatment of Sanitary Sewers
- Sewer Lateral Reinstatement Connection to CIPP
- MainSewer Lateral Liner -CIPP
- Sewer Lateral CCTV Inspection

- General Cleaning of Sewer Laterals
- Replace/Extend/Reconnect Building Sewer Lateral/Connection Pipe 4-Inch thru and including 12-inch Diameter PVC
- Add or Replace Building Sewer Cleanout Pipe
- Add or Replace Street Wye or Thimble with Wye Saddle
- Any other contingent items that are deemed necessary

Previous Change Order Scope:

N/A

Current Change Order Scope:

The increase in the contract by 43% from FY20 to FY21 is related to an increase in sewer lateral replacements performed by the Sanitary Sewer Lateral Replacement Contractor. Due to the pandemic safety precautions, our in-house crews were advised not to enter homes. The restriction impacted our regular investigation routine of entering the residence to perform investigation. This required the installation of additional cleanouts (by the contractor) at the property line so that an investigation could be made to determine if the problem was on the public or private side further increasing cost.

PROCUREMENT INFORMATION			
Contract Type:	Unit Price	Award Based On:	Lowest responsive, responsible bidder, with preference
Commodity:	Construction	Contract Number:	190020
Contractor Market:	Open Market		

BUDGET INFORMATION			
Funding:	Capital	Department:	Sewer Services
Service Area:	Sanitary	Department Head:	Kenrick StLouis
Project:	M9		

ESTIMATED USER SHARE INFORMATION		
User	Share %	Dollar Amount
District of Columbia	100.00%	\$5,000,000.00
Federal Funds	0.00%	\$0.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County & Potomac Interceptor	0.00%	\$0.00
Total Estimated Dollar Amount	100.00%	\$5,000,000.00

Kenrick StLouis _____
 December 9, 2021
 Date
 Kenrick StLouis
 VP of Pumping and Sewer Operations

Dan Bae _____
 December 9, 2021
 Date
 Dan Bae, VP
 Procurement and Compliance

Matthew T. Brown _____
 December 9, 2021
 Date
 Matthew T. Brown
 CFO and EVP
 Finance and Procurement

 _____
 12/20/2021
 Date
 David L. Gadis
 CEO and General Manager

Presented and Adopted: January 6, 2022
SUBJECT: Approval to Execute Contract No. 180030, Spinello Companies

#22-05
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 January 6, 2022, upon consideration of a non-joint use matter, decided by a vote of __() in favor and __() opposed to execute Contract No. 180030, Spinello Companies.

Be it resolved that:

The Board of Directors hereby authorizes the CEO/General Manager to execute Contract No. 180030, Spinello Companies. The purpose of the contract is to replace small diameter water mains that have experienced failures, or have a history of low water pressure, or water quality issues across various locations within the District of Columbia. The contract amount is \$14,673,300.

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:

**Small Diameter Water Main Replacement – 15B
(Non-Joint Use)**

Approval to execute a construction contract for \$14,673,300.00

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Spiniello Companies 354 Eisenhower Parkway Livingston, NJ 07039	S & J Service, Inc. Hyattsville, MD	DBE 20.0%
	M. Luis Products, LLC. Silver Spring, MD	DBE 12.0%
	RAM Construction, Inc. Olney, MD	WBE 6.0%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	\$14,673,300.00
Contract Time:	461 Days (1 Year 3 Months)
Anticipated Contract Start Date (NTP):	01-20-2022
Anticipated Contract Completion Date:	04-26-2023
Bid Opening Date:	11-09-2021
Bids Received:	6
Other Bids Received	
Capitol Paving of DC Inc.	\$15,512,964.00
Fort Myer Construction Corp.	\$15,959,436.00
Sagres Construction Corp.	\$16,371,590.00
Civil Construction LLC	\$16,819,833.00
Anchor Construction Company, Inc.	\$18,487,733.00

Purpose of the Contract:

Replacement of small diameter water mains that have experienced failures, or have a history of low water pressure, or water quality issues across various locations within the District of Columbia.

Contract Scope:

- Replace 4.15 miles of water mains ranging from three (3) inches to sixteen (16) inches in diameter and associated valves and appurtenances.
- Replace water services two (2) inches in diameter and smaller in public and private space as needed.
- Replace curb stop / curb stop box, meter box and penetration through building wall and connection to first fitting inside the building including installation of a shut-off valve and pressure reducing valve.
- Provide permanent pavement and surface restoration.

Federal Grant Status:

- Construction contract is anticipated to be funded in part from a Water Infrastructure Finance and Innovation Act (WIFIA) loan.
- Construction contract is funded in part by Federal grant.

PROCUREMENT INFORMATION

Contract Type:	Unit Price	Award Based On:	Lowest responsive, responsible bidder
Commodity:	Construction	Contract Number:	180030
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	Department:	Engineering and Technical Services
Service Area:	Water	Department Head:	Mark Babbitt (Acting)
Project:	GR, BW		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	20.00%	\$2,934,660.00
Federal Funds	80.00%	\$11,738,640.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County & Potomac Interceptor	0.00%	\$0.00
Total Estimated Dollar Amount	100.00%	\$14,673,300.00

Salil M Kharkar _____
 December 6, 2021
 Date
 Salil M Kharkar
 Senior Technical Advisor to COO

Dan Bae _____
 December 6, 2021
 Date
 Dan Bae, VP
 Procurement and Compliance

Matthew T. Brown _____
 December 7, 2021
 Date
 Matthew T. Brown
 CFO and EVP
 Finance and Procurement

 _____
 12/20/2021
 Date
 David L. Gadis
 CEO and General Manager

Presented and Adopted: January 6, 2022
SUBJECT: Approval to Execute Contract No. 10140, RedZone Robotics, Inc.

#22-06
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 January 6, 2022, upon consideration of a non-joint use matter, decided by a vote of __() in favor and __() opposed to execute Contract No. 10140, RedZone Robotics, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the CEO/General Manager to execute Contract No. 10140, RedZone Robotics, Inc. The purpose of the contract is to perform video inspection and assessment of all small, local sewers within DC Water's Service Area. The contract amount is \$5,858,000.

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

GOODS AND SERVICES CONTRACT AWARD

**SEWER INSPECTION SERVICES
(Non-Joint Use)**

Approval to execute contract award for Sewer Inspection Services contract for three (3) year base plus two (2) option years in the total amount of \$ 5,858,000.00

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
RedZone Robotics, Inc 91 43 rd Street, Suite 250 Pittsburgh, PA 15201	Arthur Engineering Services DBE Laurel, MD	DBE - 22%
	Sunrise Safety Services WBE Glen Burnie, MD	WBE - 10%
	Traffic Services & Control, LLC WBE Oxon Hill, MD	

DESCRIPTION AND PURPOSE

Base Period Contract Value:	\$3,258,000.00
Base Contract Period:	3 Years
No. of Option Years	2
Option Period Total Value	\$2,600,000.00
Total Contract Value	\$5,858,000.00
Anticipated Contract Period	1-10-2022 – 1-09-2027

Purpose of the Contract:

The Department of Pumping & Sewer Operations requires a qualified vendor to perform video inspection and assessment of all small, local sewers (approximately 4,000,000 linear feet) within DC Water's Service Area. The sewers range in size from 8-inch to 12-inch in diameter. This condition assessment work will inform both operations and maintenance activities, as well as capital investment planning and prioritization.

Contract Scope:

The expected productivity is approximately 500,000 linear feet per year until complete. All data shall be stored in a NASSCO compliant database. Services may also include traffic control and video inspection and assessment of manholes. All services shall be performed in accordance with the relevant standards and specifications set forth by the National Association of Sewer Service Companies (NASSCO) including:

- CCTV Inspection of Sewers
- Cleaning of Sewer Mains
- Cleaning and CCTV Inspection of Building Sewer
- Sewer Manhole and Structure Inspection
- Traffic Maintenance and Protection

PROCUREMENT INFORMATION

Contract Type:	Fixed Unit Rate	Award Based On:	Sole Source
Commodity:	Professional Services	Contract Number:	10140
Contractor Market:	Sole Source		

BUDGET INFORMATION

Funding:	Operating	Department:	Pumping & Sewer Operations
Service Area:	Local Sewer Assessment	Department Head:	Kenrick St. Louis

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$658,000.00
Federal Funds	0.00%	\$
Washington Suburban Sanitary Commission	0.00%	\$
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	\$
Total Estimated Dollar Amount	100.00%	\$658,000.00


BUDGET INFORMATION

Funding:	Capital	Department:	Pumping & Sewer Operations
Service Area:	Sanitary Sewer	Department Head:	Kenrick St. Louis
Project:	QY and QZ		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$ 5,200,000.00
Federal Funds	0.00%	\$
Washington Suburban Sanitary Commission	0.00%	\$
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	\$
Total Estimated Dollar Amount	100.00%	\$ 5,200,000.00

Kenrick St. Louis, 12/17/2021
 Kenrick St. Louis Date
 VP of Pumping and Sewer Operations


 Dan Bae Date
 VP of Procurement and Compliance

Dan Bae
 CHRO, E-mail: danbae@wasa.com
 District of Columbia Water and Sewer
 Authority, 501 VP of Procurement &
 Compliance, CN-Dan Bae
 2021 12 07 14:52:17 -0500

Matthew T. Brown Digitally signed by Matthew T. Brown
 Date: 2021.12.08 13:58:08 -05'00'
 Matthew T. Brown Date
 CFO and EVP of Finance and Procurement


 David L. Gadis 12/20/2021 Date
 CEO and General Manager

Presented and Adopted: January 6, 2022

SUBJECT: Approval to Participate in the District Department of Transportation's (DDOT) Project to Reconstruct Martin Luther King Jr., Ave., SE Phase II from South Capitol Street, SE to 4th Street, SE Under the MOU between DDOT and DC Water under the 2002 Memorandum of Understanding

**#22-07
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 January 6, 2022, upon consideration of a non-joint use matter, decided by a vote of ___() in favor and ___() opposed to execute the Approval to Participate in the District Department of Transportation's (DDOT) Project to Reconstruct Martin Luther King Jr., Ave., SE Phase II from South Capitol Street, SE to 4th Street, SE Under the MOU between DDOT and DC Water under the 2002 Memorandum of Understanding.

Be it resolved that:

The Board of Directors hereby authorizes the CEO/General Manager to execute the Approval to Participate in the District Department of Transportation's (DDOT) Project to Reconstruct Martin Luther King Jr., Ave., SE Phase II from South Capitol Street, SE to 4th Street, SE Under the MOU between DDOT and DC Water under the 2002 Memorandum of Understanding. The purpose of participating is to replace small diameter water mains that have experienced failures, or have a history of low water pressure, or water quality issues within the District of Columbia in conjunction with DDOT's project. The amount is \$2,753,000.

This Resolution is effective immediately.

Secretary to the Board of Directors

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

ACTION REQUESTED

PARTICIPATION IN DDOT PROJECT:

**DDOT – Martin Luther King Jr. Avenue, SE Phase II
From South Capitol Street, SE to 4th Street, SE**

(Non-Joint Use)

Approval to participate in DDOT's project to reconstruct Martin Luther King Jr. Avenue, SE Phase II from South Capitol Street, SE to 4th Street, SE under the terms of the 2002 Memorandum of Agreement (MOA) between District of Columbia Department of Transportation (DDOT) and DC Water for an amount up to \$2,753,000.00. This amount exceeds the General Manager's approval authority.

PARTY INFORMATION

PARTY:	SUBS:	PARTICIPATION:
District Department of Transportation 55 M Street, SE, Suite 400 Washington, DC 20003	DBE and WBE fair share objectives will follow DDOT goals.	

DESCRIPTION AND PURPOSE

Value, Not-To-Exceed: \$2,753,000.00
 Time: 730 Days (2 Years, 0 Months)
 Anticipated Start Date: June 15, 2022
 Anticipated Completion Date: June 15, 2024

Purpose of DC Water's Participation:

Replacement of small diameter water mains that have experienced failures, or have a history of low water pressure, or water quality issues within the District of Columbia in conjunction with DDOT project.

Scope of DC Water's Participation:

- Replace 0.72 miles of water mains ranging from four (4) inches to twenty (20) inches in diameter and associated valves and appurtenances.
- Replace water services two (2) inches in diameter and smaller in public and private space as needed.
- Replace curb stop / curb stop box, meter box and penetration through building wall and connection to first fitting inside the building including installation of a shut-off valve and pressure reducing valve.

Federal Grant Status:

- Work is not eligible for Federal grant funding assistance.

PROCUREMENT INFORMATION

Contract Type:	MOA	Award Based On:	N/A
Commodity:	Design and Construction	Contract Number:	N/A

BUDGET INFORMATION

Funding:	Capital	Department:	Engineering and Technical Services
Service Area:	Water	Department Head:	Mark Babbitt (Acting)
Project:	KG		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$ 2,753,000.00
Federal Funds	0.00%	\$
Washington Suburban Sanitary Commission	0.00%	\$
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	\$
Total Estimated Dollar Amount	100.00%	\$ 2,753,000.00

**Salil M
Kharkar**

Digitally signed by Salil M Kharkar
DN: dc=dcwm, dc=dowasa,
ou=WASA Users, ou=Waste Water
Operations, cn=Salil M Kharkar,
email=Salil.Kharkar@dowater.com
Date: 2021.12.06 16:23:05 -05'00'

Salil Kharkar _____ Date
Senior Technical Advisor to COO



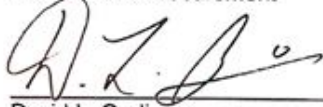
Dan Bae
C=US, E=dan_bae@dowater.com
O=District of Columbia Water and Sewer
Authority, OU=VP of Procurement &
Compliance, CN=Dan Bae
2021.12.07 10:26:24 -05'00'

Dan Bae _____ Date
VP Director of Procurement

**Matthew T.
Brown**

Digitally signed by Matthew T
Brown
Date: 2021.12.10 13:31:23
-05'00'

Matthew T. Brown _____ Date
CFO and EVP
Finance and Procurement



David L. Gadis _____ 12/20/2021 Date
CEO and General Manager