# DC Water's Green Bond Report

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY   **FISCAL YEAR 2019**

David Gadis, Chief Executive Officer

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

## DC Water

The District of Columbia Water and Sewer Authority (DC Water) provides retail drinking water and wastewater services to the District of Columbia (District) and wholesale wastewater treatment services to several adjoining municipalities in Maryland and Virginia. DC Water was created in 1996 under District law, with the approval of the United States Congress, as an independent authority of the District government with legal, financial and operational autonomy. DC Water is governed by an 11-member Board of Directors, with representatives from the District, Montgomery and Prince George's counties in Maryland, and Fairfax County in Virginia. The Board is responsible for adopting DC Water's policies and procedures, and its District representatives are vested with the sole authority to set DC Water's rates, fees and charges.

In fiscal year (FY) 2019, DC Water had an operating budget of approximately $582.8 million and a 10- year, $4.0 billion capital improvement program. It employed over 1,100 people in the District and served a total population of more than 2.5 million within its 725 square mile service territory. DC Water pumped an average of 97 million gallons per day of drinking water through 1,350 miles of water mains and treated an average of 320 million gallons per day of wastewater through 1,900 miles of sanitary and combined sewers.

dc💧
water is life®

**SERVICE AREA**



FACILITIES MANAGED BY AND SERVICE AREAS SERVED BY DC WATER

- 🟩 Blue Plains Service Area
- Jurisdictional Boundaries

Blue Plains Advanced Wastewater Treatment Plant



Blue Plains Advanced Wastewater Treatment Plant
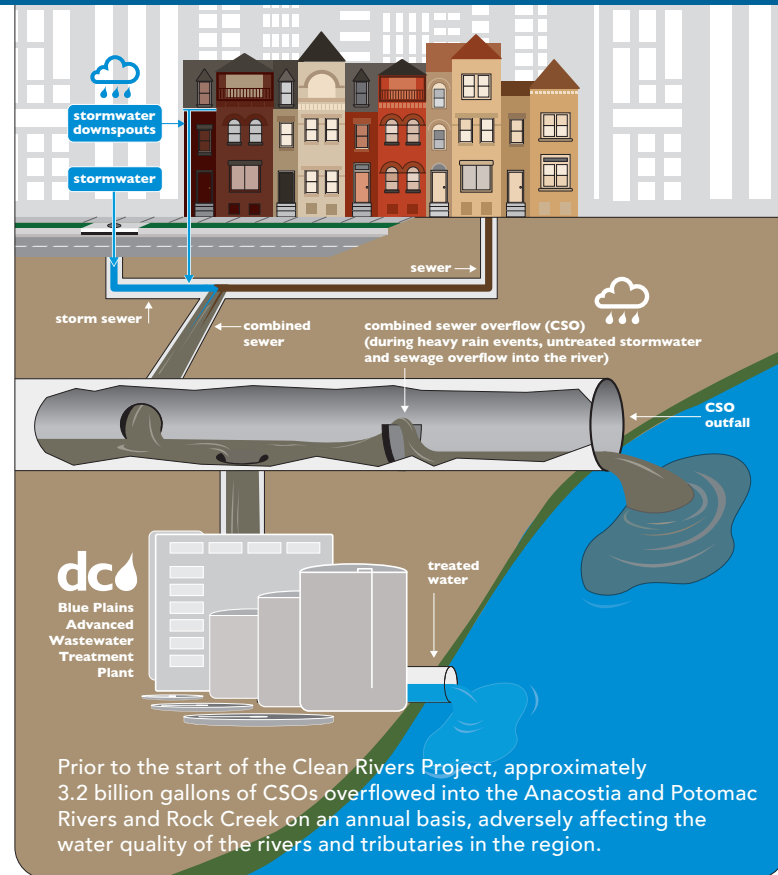
## Inside Content

## DC Clean Rivers Project

Like many older cities in the United States, the sewer system in the District is comprised of both combined sewers and separate sanitary sewers. In a combined sewer system, sewage from homes and businesses during dry weather is conveyed to DC Water's Blue Plains Advanced Wastewater Treatment Plant (Blue Plains) located in the southwestern part of the District on the east bank of the Potomac River. At Blue Plains, wastewater is treated to remove pollutants prior to being discharged into the Potomac River. When the capacity of a combined sewer is exceeded during storms, the excess flow, which is a mixture of sewage and stormwater runoff, is discharged into the Anacostia and Potomac Rivers and Rock Creek. This excess flow is called combined sewer overflow (CSO). There are 47 active CSO outfalls in the District's combined sewer system.

Communities in the United States with combined sewer systems were required to prepare long term control plans for managing CSO in accordance with Section 402(q) of the Clean Water Act (CWA). A United States Environmental Protection Agency (EPA) Report to Congress on the Impacts and Controls of CSOs and Sanitary Sewer Overflows (EPA 833-R-04-001 dated August 26, 2004 or the "2004 EPA Report") concluded that occurrence of CSOs are widespread and cause or contribute to adverse environmental and human health impacts. DC Water, in compliance with the requirements of the CWA and its National Pollutant Discharge Elimination System (NPDES) permit issued by the EPA, prepared a Long-Term Control Plan (LTCP). The LTCP is a plan that outlines infrastructure improvements with a proposed implementation schedule to control CSO discharges into the area waterways.

In addition to controlling CSO discharges into the area waterways, select projects in the LTCP have also been deemed to relieve and mitigate flooding in certain areas of the District by the Mayor's Task Force on the Prevention of Flooding in Bloomingdale and LeDroit Park (Mayor's Task Force).

The LTCP infrastructure improvements that have been determined to provide flood relief and mitigation include:



Prior to the start of the Clean Rivers Project, approximately 3.2 billion gallons of CSOs overflowed into the Anacostia and Potomac Rivers and Rock Creek on an annual basis, adversely affecting the water quality of the rivers and tributaries in the region.
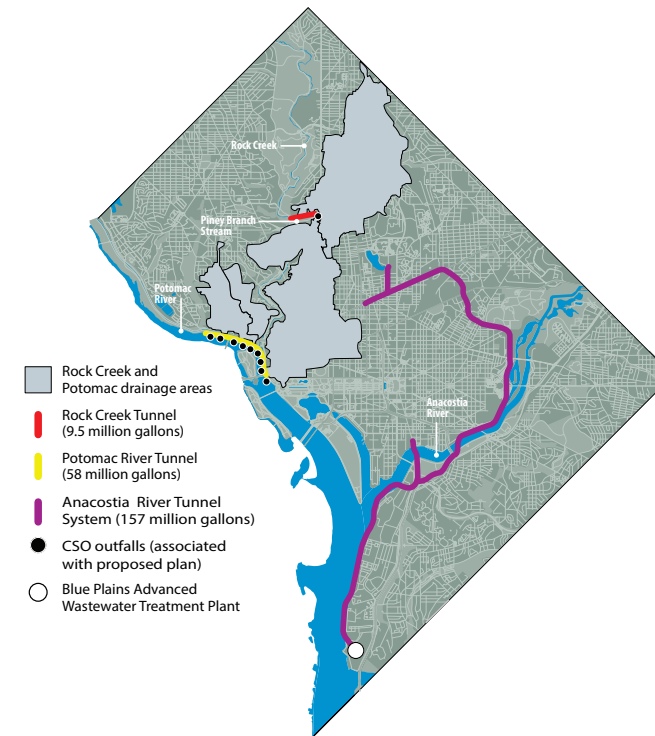
- Irving Street Green Infrastructure
- First Street Tunnel
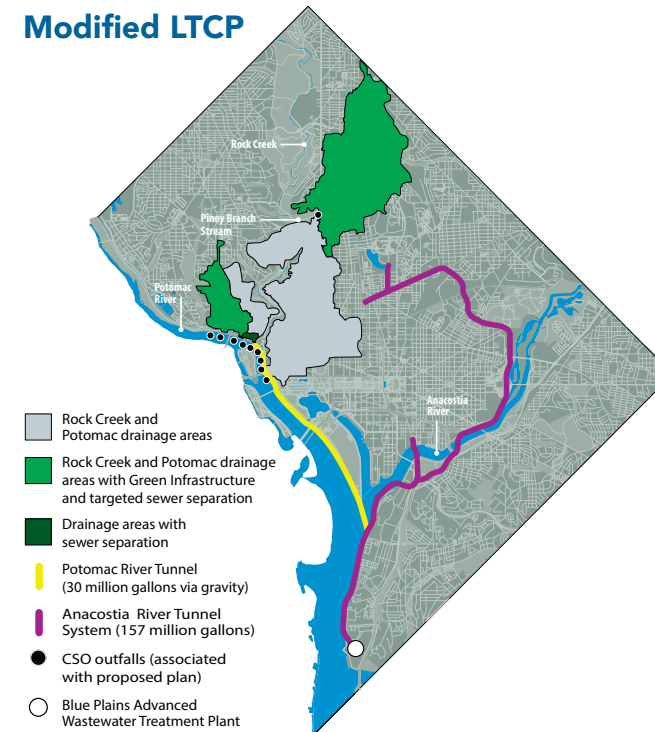- Northeast Boundary Tunnel

A draft of the LTCP was submitted for public comment, as well as to the EPA and the District Department of Health in June 2001. After addressing public comments, the final LTCP proposed significant reductions in CSO compared to the draft plan and was approved by the District Department of Health in August 2003 and by EPA in November 2004. On March 25, 2005, DC Water and the District government entered into a Consent Decree (Civil Action No. 1:00-cv-00183-TFH) with the United States Department of Justice (DOJ) and the EPA. This Consent Decree established a schedule for the implementation of the LTCP. In 2010, DC Water renamed the LTCP the DC Clean Rivers Project.

On May 20, 2015, DC Water, District of Columbia, EPA and DOJ announced an agreement to modify the March 2005 consent decree to allow for large-scale green infrastructure (GI) installations and other modifications to the DC Clean Rivers Project impacting the Potomac River and Rock Creek watersheds. The modification was approved and became effective on January 14, 2016.

### Original LTCP



- Rock Creek and Potomac drainage areas
- Rock Creek Tunnel (9.5 million gallons)
- Potomac River Tunnel (58 million gallons)
- Anacostia River Tunnel System (157 million gallons)
- CSO outfalls (associated with proposed plan)
- Blue Plains Advanced Wastewater Treatment Plant

### Modified LTCP



- Rock Creek and Potomac drainage areas
- Rock Creek and Potomac drainage areas with Green Infrastructure and targeted sewer separation
- Drainage areas with sewer separation
- Potomac River Tunnel (30 million gallons via gravity)
- Anacostia River Tunnel System (157 million gallons)
- CSO outfalls (associated with proposed plan)
- Blue Plains Advanced Wastewater Treatment Plant

## DC Water's Green Bond and Annual Reporting Commitments

In July 2014, DC Water issued its inaugural green bond (Public Utility Senior Lien Revenue Bonds, Series 2014A, Offering Memorandum dated July 10, 2014 or the "Series 2014A Bond") to finance a portion of the DC Clean Rivers Project. This historic $350 million issuance marked the first green bond issued in the United States to be supported by an independent "Second Party Opinion" and the first 100-year "Century" bond issued by a municipal water utility. During fiscal year 2016, DC Water issued $100 million of Series 2015A, a subordinate lien revenue bond (Series 2015A Bond).

During fiscal year 2017, DC Water issued $100 million of Series 2017A, a senior lien revenue bond (Series 2017A Bond). During fiscal year 2018, DC Water issued $100 million of Series 2018A, a senior lien revenue bond (Series 2018A) which brings the total green bond issuances to $650 million as of September 30, 2019.

DC Water retained Vigeo to provide the Second Party Opinion on its green bonds in accordance with Vigeo's environmental, social and governance (ESG) assessment methodology, which is based upon criteria aligned with public international standards in compliance with the International Organization for Standardization (ISO) 26000 guidelines. The Second Party Opinion included the identification of certain ESG performance indicators and DC Water's commitment to undertake annual reporting on those indicators. This Green Bond Report for the fiscal year ended September 30, 2019, was prepared to satisfy reporting commitments outlined in Vigeo's Second Party Opinion, which is included within the offering memoranda of the Series 2014A and Series 2015A Bonds. The offering memoranda of the Series 2017A and 2018A Bonds reference Vigeo's prior Second Party Opinion. DC Water's green bond reporting commitments for the fiscal year ended September 30, 2019, include the following:

- 💲 **Use of Proceeds** of the green bond for the DC Clean Rivers Project

- 🌊 **Environmental and Social Outcomes** achieved by the DC Clean Rivers Project

- ⚙️ **Responsible Management** of the DC Clean Rivers Project

DC Water takes responsibility for the completeness, accuracy and validity of the indicators and for the conformity of the indicators with DC Water's internally developed reporting criteria. KPMG LLP reviewed the indicators identified in this report with the respective indicator reference letters **(A)** through **(S)** (see accompanying Independent Accountants' Review Report on page 14).

# $ Use of Proceeds

DC Water established the following performance indicators and related criteria to report on the use of proceeds:

| Indicator Reference | Indicator | Criteria |
|---|---|---|
| (A) | Net Proceeds Deposited | The Criteria is not applicable. DC Water did not issue Green Bonds during the fiscal year 2019. |
| (B) | Bond Draws | Amounts reimbursed to DC Water from the Series 2018A Bond, 2017A Bond, 2015A Bond and 2014A Bond Construction Accounts for expenses paid related to the DC Clean Rivers Project during the fiscal year. |

The net proceeds of the Series 2018A Bond, 2017A Bond, 2015A Bond and 2014A Bond were deposited into segregated accounts (the Series 2018A Bond, 2017A Bond, 2015A Bond, and Series 2014A Bond Construction Accounts) under DC Water's Master Indenture of Trust, as amended and supplemented (the Indenture) and are invested pursuant to the Indenture and DC Water's Investment Policy. All uses of the proceeds taken from the respective Construction Accounts were used to fund DC Clean Rivers Project costs. The following tables provide the 2019 net proceeds deposited related to the Series 2018A Bond, the FY 2019 bond draws reimbursed to DC Water from the Series 2018A Bond, 2017A Bond, 2015A Bond, and the 2014A Bond Construction Accounts, as well as the cumulative net proceeds deposited and bond draws from the bond issuance dates through September 30, 2019:



## Net Proceeds Deposited

| Description | Net Proceeds Deposited as of September 30, 2018 | Net Proceeds Deposited in FY 2019 (A) | Cumulative Net Gains on Investments as of September 30, 2019 | Cumulative Net Proceeds Deposited in Construction Accounts as of September 30, 2019 |
|---|---|---|---|---|
| Series 2018A Bond | $115,086,451 | $- | $2,205,190 | $117,291,641 |
| Series 2017A Bond | 107,966,236 | - | 381,190 | 108,347,426 |
| Series 2015A Bond | 115,869,359 | - | 680,349 | 116,549,708 |
| Series 2014A Bond | 346,000,000 | - | 468,661 | 346,468,661 |
| Total | $684,922,046 | $- | $3,735,390 | $688,657,436 |

## Bond Draws

| Description | Cumulative Bond Draws as of September 30, 2018 | Bond Draws in FY 2019 (B) | Cumulative Bond Draws as of September 30, 2019 |
|---|---|---|---|
| Series 2018A Bond | $- | ($90,565,828) | ($90,565,828) |
| Series 2017A Bond | (108,346,990) | (436) | (108,347,426) |
| Series 2015A Bond | (116,549,705) | (3) | (116,549,708) |
| Series 2014A Bond | (346,468,660) | (1) | (346,468,661) |
| Total | ($571,365,355) | ($90,566,268) | ($661,931,623) |

As of September 30, 2019, the unspent amount related to the Series 2018A Bond including cumulative net gains on investments was $26,725,813.

# Environmental and Social Outcomes

The DC Clean Rivers Project is designed and engineered to achieve three core environmental and social outcomes:

- **Water Quality** – Improve water quality by capturing and treating CSOs before entering the District's rivers and waterways.

- **Climate Resilience** – Promote climate resilience, with the objective of flood relief and mitigation.

- **Quality of Life** – Enhance the quality of life associated with restoring the District's rivers, waterways and waterfront areas by removing harmful contaminants and pollutants.

## Water Quality

The first core outcome of the DC Clean Rivers Project is to improve water quality by capturing and treating CSOs before entering the District's rivers and waterways. DC Water established the following performance indicators and related criteria to report on water quality:

| Indicator Reference | Indicator | Criteria |
| --- | --- | --- |
| **(C)** | Percent Reduction in Predicted Pollutants | Percentage reduction in pounds of total nitrogen, total phosphorus, and total suspended solids from predicted 1996 pre-DC Clean Rivers Project discharge calculated in the LTCP compared to predicted discharge as reported in Monthly Operations Report for Combined Sewer System submitted to the EPA for the fiscal year based on average year rainfalls. |
| **(D)** | Tunnel Construction Progress | Progress towards completion as indicated by the percentage of distance in feet from beginning of tunnel (as defined in DC Clean Rivers Project's tunnel contract drawings) to the position of the tunnel boring machine as of fiscal year end, as measured by the Tunnel Process Control Program of the tunnel boring machine divided by the planned length of the completed tunnel according to the DC Clean Rivers Project's tunnel contract drawings. |

From 1999-2002, as part of the LTCP, DC Water sampled representative CSOs and certain areas of the rivers and waterways near CSO outfalls for nitrogen, phosphorus and suspended solids levels. Using the data collected and three-year average rainfall for 1988 to 1990, DC Water modeled the predicted discharge of total nitrogen (TN), total phosphorus (TP) and total suspended solids (TSS) in the District Rivers and waterways in 1996 (base year).

The DC Clean Rivers Project is implemented and placed in operation in phases. The first phase includes various infrastructure projects, primarily upgrades to existing facilities in the sewer system such as inflatable dams and pumping stations. As of September 30, 2015, the first phase (Phase 1) of the DC Clean Rivers Project was completed. Upon completion of Phase 1 post construction monitoring for the DC Clean Rivers Project in 2016, DC Water calculated the Predicted Discharge to evidence the impact of Phase 1 of the project. The next phase consists of the Blue Plains and Anacostia River Tunnels and associated treatment facilities at the Blue Plains, which were placed in operation on March 20, 2018. The last tunnel to be placed in service for the Anacostia River is the Northeast Boundary Tunnel, scheduled for completion in 2023.

For FY2019, CSO reduction performance was based on modeling using the portion of tunnel volume in service compared to the total tunnel volume. After the Northeast Boundary Tunnel is placed in operation, another round of post construction monitoring is planned pursuant to the NPDES Permit issued by the EPA to validate the performance of the completed Anacostia CSO controls.

Year to year variability in the nature and quantity of rainfall has a significant impact on the volume of CSOs and the quantities of CSO-related pollutants. More rain and more intense storms typically increase CSOs, while less rain and lower intensity storms produce fewer CSOs. As a result, this year's Green Bond Report presents predicted pollutant loads for FY 2019 actual rainfall, but also presents predicted loads using average year rainfall conditions. Presentation of the data based on average year rainfall normalizes the climate conditions to a common base which allows direct year over year comparison of the degree of CSO control being provided without variations produced by differences in rainfall.

The results of the predicted discharge in 1996 and FY 2019 based on 1988 to 1990 average year rainfall and predicted discharge in FY 2019 based on FY 2019 actual rainfall are as follows:

| Pollutants | Average Year Rainfall | | | 2019 Actual Rainfall |
| --- | --- | --- | --- | --- |
| | Predicted Discharge in FY 2019 (lbs) | Predicted Discharge in 1996 (Prior to Clean Rivers Project) (lbs) | Percent Reduction (C) | Predicted Discharge in FY 2019 (lbs) |
| Total Nitrogen | 43,552 | 127,550 | 66% | 42,443 |
| Total Phosphorus | 9,266 | 27,138 | 66% | 9,030 |
| Total Suspended Solids | 1,204,621 | 3,527,987 | 66% | 1,173,961 |

Average year rainfall conditions are defined as the average of the rainfall in the years 1988, 1989 and 1990 or about 41 inches of rain per calendar year. In fiscal year 2019, total rainfall as measured at Ronald Reagan Washington National Airport was approximately 47 inches.

Subsequent phases of the DC Clean Rivers Project include the construction of a deep tunnel system that is engineered to capture and divert CSOs into underground sewer structures to reduce CSO discharges into the Anacostia and Potomac Rivers and the Rock Creek. Once diverted into the tunnels, the CSOs will be conveyed to and treated at Blue Plains before being discharged back into the Potomac River. Upon completion of the tunnel system, DC Water anticipates that CSOs will have been reduced system wide by 96% and in the Anacostia River by 98% (using the same model and inputs described above). Since March 20, 2018, the first portion of the Anacostia River Tunnel System (the Blue Plains Tunnel and the Anacostia River Tunnel) is operational. The Anacostia River Tunnel System includes the following tunnel projects:

1. **Blue Plains Tunnel** – the construction work associated with this tunnel is complete. It was placed in operation on March 20, 2018.

2. **First Street Tunnel** – this tunnel is complete and was placed in operation in 2016.

3. **Anacostia River Tunnel** – the construction work associated with this tunnel is complete. It was placed in operation on March 20, 2018.

4. **Northeast Boundary Tunnel** – this tunnel project began construction in 2017 and is scheduled to be complete and placed in service in 2023.

As a result, DC Water has committed to report on the progress of the DC Clean Rivers Project tunnel system construction. The Tunnel Construction Progress shown on the following graphic represents the progress of the Anacostia River Tunnel System as of September 30, 2019 and does not include the Potomac since the Potomac River Tunnel projects have not yet started pursuant to the LTCP schedule:

**Tunnel Construction Progress (D)**
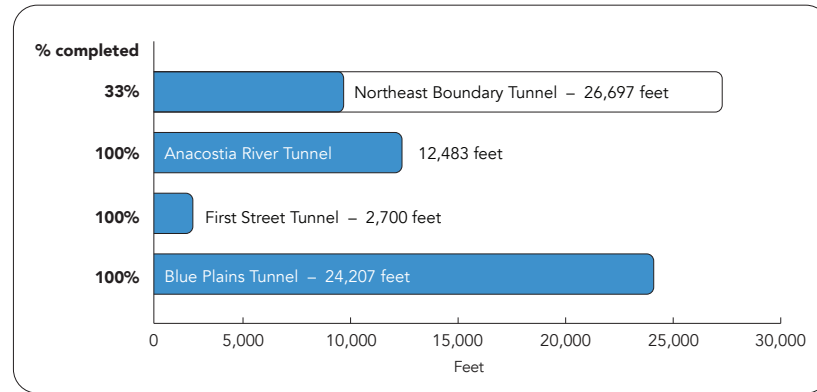


### Climate Resilience

A second core outcome of the DC Clean Rivers Project is to promote climate resilience, with the objective of flood relief and mitigation. DC Water established the following performance indicator and related criteria to report on climate resilience:

| Indicator Reference | Indicator | Criteria |
|---|---|---|
| (E) | Flood Relief and Mitigation Projects Progress | Progress towards completion as indicated by the percentage of cumulative amounts paid for each project through the fiscal year end to the total budget approved by the Board of Directors for the identified programs |

The table below reports on the major flood relief and mitigation related projects contained within the DC Clean Rivers Project that have been approved for funding and their respective progress towards completion as indicated by the percentage of cumulative amounts paid for each project as of September 30, 2019, to the total approved budget for the identified projects.

| Flood Relief & Mitigation Projects Progress | Board Approved Contract Funding | Actuals | Percent (E) |
|---|---|---|---|
| McMillan Stormwater Storage | $12,403,945 | $12,403,945 | 100% |
| First Street Tunnel | 157,675,000 | 154,700,310 | 98.1% |
| Northeast Boundary Tunnel | 596,971,686 | 211,016,031 | 35.3% |
| Total | $767,050,631 | $378,120,286 | 49.3% |

McMillan Stormwater Storage project funding includes $12,000,000 of Board-approved funding and $403,945 in additional change orders which did not require separate board approval. The McMillan Stormwater Storage project was substantially completed on April 11, 2018. The First Street Tunnel was completed with an unspent budget of $2,974,690.

The Northeast Boundary Tunnel is made up of two contracts; the first is for utility relocations in the amount of $16,996,686, while the second is for the construction of the tunnel and diversion chambers in the amount of $579,975,000. The utility relocation construction contract was substantially completed on November 27, 2017.

In July 2017, DC Water Board of Directors awarded the $579,975,000 Northeast Boundary Tunnel Project (NEBT) construction contract, which is a major component of the DC Clean Rivers Project's objective of meeting CSO control objectives and providing flood relief and mitigation in the Northeast Boundary drainage area of the District. The NEBT Notice to Proceed (NTP) was issued on September 15, 2017. The NEBT will provide CSO storage capacity for the Anacostia River as required by the Consent Decree and will also serve to relieve and mitigate sewer flooding and basement backups in the Northeast Boundary drainage area.

In 2012, a series of heavy storms caused significant overland flooding and sewer system backups in certain areas of the District. In 2013, in response to the recommendations made by the Mayor's Task Force, the timeline of construction of the NEBT was accelerated and the project was modified to more effectively relieve and mitigate flooding in the Bloomingdale and LeDroit Park neighborhoods prior to the scheduled completion of the DC Clean Rivers Project.

### Quality of Life

A third core outcome of the DC Clean Rivers Project is to enhance the quality of life associated with restoring the District's rivers, waterways and waterfront areas by removing harmful contaminants and pollutants. As CSOs are diverted from the District's rivers and waterways because of the completion of the DC Clean Rivers Project, influent at Blue Plains will increase. Therefore, in addition to the reduction in predicted pollutants indicator **(C)** previously presented, DC Water established the following performance indicator and related criteria for quality of life:

| Indicator Reference | Indicator | Criteria |
|---|---|---|
| (F) | Pollutants Removed at Blue Plains | Percentage removal of total nitrogen, total phosphorus and total suspended solids in pounds contained in the water entering (influent) and exiting (effluent) Blue Plains for the current fiscal year as measured at Blue Plains and used to calculate information submitted in EPA Monthly Reports. |

The table below represents the percentage removal of contaminants and pollutants by the DC Water Advanced Wastewater Treatment Plant at Blue Plains, in Fiscal Year 2019.

| Pollutants Removed at Blue Plains | | | |
|---|---|---|---|
| Parameter | Influent (lbs) | Effluent (lbs) | Percent Removed (F) |
| Total Nitrogen | 39,533,250 | 3,609,322 | 90.9% |
| Total Phosphorus | 4,085,469 | 102,520 | 97.5% |
| Total Suspended Solids | 231,213,681 | 1,580,713 | 99.3% |

# Responsible Management

DC Water has also committed to report on the responsible management of the DC Clean Rivers Project on the degree of implementation of select environmental, social and governance (ESG) criteria at the project level. The criteria are organized in five ESG domains: **Human Rights**, **Human Resources**, **Environment**, **Business Behavior** and **Community Involvement**.

### Human Rights
DC Water established the following performance indicators and related criteria for this domain as follows:

| Indicator Reference | Indicator | Criteria |
|---|---|---|
| (G) | DC Clean Rivers Project full-time employees by gender, age, and ethnicity (indicators of diversity) | Number of DC Water employees working full-time solely assigned to the DC Clean Rivers Project by self-reported gender, age group, and ethnicity as of the fiscal year end. |
| (H) | Total number of incidents of discrimination and actions taken | Number of reported incidents of discrimination against DC Clean Rivers Project employees reported to the DC Water Human Resources Department through the hotline or by employees during the fiscal year and actions taken by DC Water to address the reported incidents. |

The DC Clean Rivers Project employed 8 full time employees with the following indicators of diversity: gender (6 male and 2 female); age (2 aged 18-44 years, 5 aged 45-64 years, and 1 aged 65 years and above); ethnicity (5 White (non-Hispanic) and 3 African-American) as of September 30, 2019  **(G)**.

The DC Clean Rivers Project had no reported incidents of discrimination during FY 2019 **(H)**.
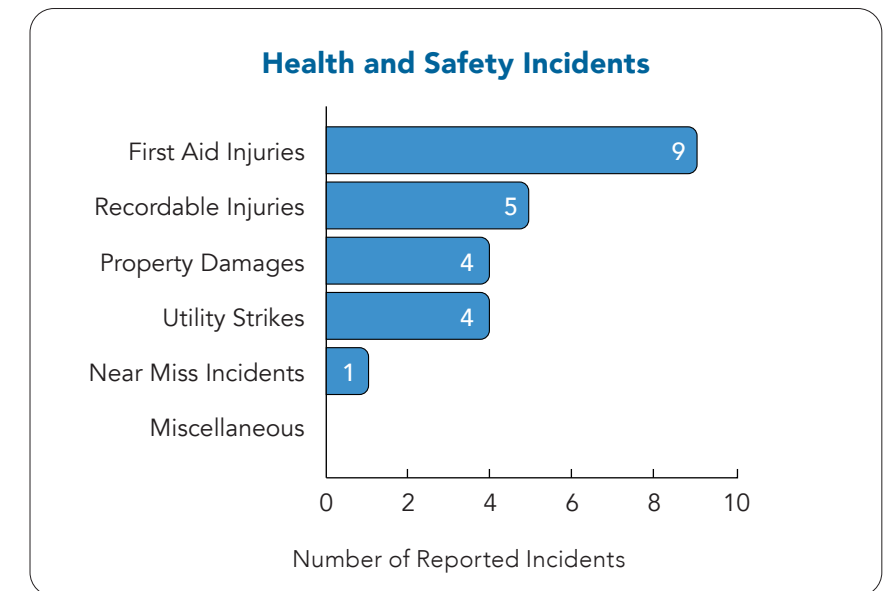
### Human Resources
DC Water established the following performance indicators and related criteria for this domain as follows:

| Indicator Reference | Indicator | Criteria |
|---|---|---|
| (I) | Percent of DC Clean Rivers Project employees receiving a performance review during the fiscal year | Percentage of DC Clean Rivers Project full time employees that received a performance review during the fiscal year divided by total number of DC Clean Rivers Project employees as of the fiscal year end. |

| Indicator Reference | Indicator | Criteria |
|---|---|---|
| (J) | Number of project person hours spent on the DC Clean Rivers Project | Number of cumulative hours reported by contractors as time worked on the DC Clean Rivers Project during the fiscal year. |
| (K) | Number of safety committee meetings | Safety committee meetings conducted and reported by DC Clean Rivers Project contractors to DC Water during the fiscal year. |
| (L) | Number of safety observation reports | Safety observation reports prepared and submitted to DC Clean Rivers Project contractors by DC Water during the fiscal year. |
| (M) | DC Clean Rivers Project recorded injuries incident rate | Recorded injuries incident rate of DC Clean Rivers Project contracts for the fiscal year, calculated as number of recorded injuries times 200,000 divided by the number of project person hours spent on the DC Clean Rivers Project. |
| (N) | Health and safety incidents for contractors | Health and safety incidents by type reported by DC Clean Rivers Project contractors during the fiscal year. |

100% of DC Clean Rivers Project full time employees received a performance review during FY 2019 **(I)**.

In FY 2019, a total of 697,171 project person hours were spent on the DC Clean Rivers Project by contractors **(J)**, 54 safety committee meetings **(K)** were held and 1 safety observation report **(L)** was submitted. The DC Clean Rivers Project recorded injuries incident rate was 1.43 **(M)** for FY 2019. The following health and safety incidents for contractors **(N)** were reported during FY 2019:

**Health and Safety Incidents**

| | Number of Reported Incidents |
|---|---|
| First Aid Injuries | 9 |
| Recordable Injuries | 5 |
| Property Damages | 4 |
| Utility Strikes | 4 |
| Near Miss Incidents | 1 |
| Miscellaneous | |

## Environment

The successful completion of the DC Clean Rivers Project may result in environmental improvements, including the promotion of subaqueous vegetation, marine life, and other plants and wildlife through the restoration of natural habitats. According to the 2004 EPA Report, the principal pollutants in CSOs include: 1) pathogens; 2) oxygen depleting substances measured as Biochemical Oxygen Demand (BOD); 3) total suspended solids; 4) toxins; 5) nutrients; and 6) floatables. All of these pollutants, at elevated levels, can have negative impacts on the aquatic biota of the local rivers and waterways.

The 2004 EPA Report further states that pathogens can cause disease in aquatic life; high levels of oxygen depleting substances and nutrients in rivers can cause fish kills; increased total suspended solids can damage habitats for aquatic life; acute effects of exposure to toxins can be observed as immediate fish kills or severely reduced biologic diversity; and floatables have an adverse impact on wildlife, primarily through entanglement or ingestion. All of these pollutants have been reported to be at high levels at CSO outfalls. The 2004 EPA Report also states that the reduction of CSOs would reduce the pollutants entering the Potomac and Anacostia Rivers and the Rock Creek and would have a positive impact on the biodiversity of its aquatic life.

Impacts to the fauna and flora during the construction phase of the DC Clean Rivers Project will be temporary and the natural environments will be restored upon completion of the project.

DC Water established the following performance indicator and related criteria for this domain as follows:

| Indicator Reference | Indicator | Criteria |
|---|---|---|
| **(O)** | Volume of CSO discharged per average rainfall year | Volume in gallons of CSO discharged subsequent to completion of phase one of the DC Clean Rivers Project as approved under the LTCP by river and waterway. |

The predicted volume of CSO discharged in FY 2019, based on historical annual average rainfall conditions, totaled approximately 1.1 billion gallons, with approximately 399 million gallons in the Anacostia River, 677 million gallons in the Potomac River, and 35 million gallons in the Rock Creek **(O)**.

## Business Behavior

DC Water established the following performance indicators and related criteria for this domain as follows:

| Indicator Reference | Indicator | Criteria |
|---|---|---|
| **(P)** | Percent of all DC Water invoices paid within 30 days<br><br>Percent of all DC Water invoices paid within 45 days | All invoices paid by DC Water during the fiscal year within 30 and 45 days of invoice receipt date as a percentage of all invoices paid by DC Water during the fiscal year. |

| Indicator Reference | Indicator | Criteria |
|---|---|---|
| **(Q)** | Percentage of EPA Fair Share Objective construction contracts awarded to Women and Minority Business Enterprises | Percentage of total EPA Fair Share Objective contract dollars DC Water awarded to businesses owned by minorities or women, as certified by relevant state governments, for all DC Water construction contracts receiving federal funds awarded during the fiscal year. |

In FY 2019, DC Water paid approximately 96.1% of its invoices within 30 days and approximately 97.7% within 45 days **(P)**. The DC Clean Rivers Project adheres to DC Water's Disadvantaged Business Enterprise Program (DBE Program) as established by the EPA. In accordance with the DBE Program, an EPA Fair Share Objective for Minority Business Enterprises (MBE) and Women Business Enterprises (WBE) participation of 32% and 6%, respectively, has been established for construction contracts. In support of these objectives, DC Water encourages MBEs and WBEs to participate at all levels of its procurement opportunities.

In FY 2019, seven EPA (funded and eligible) Fair Share Objective contracts were awarded for construction. DC Water's EPA eligible Fair Share Objective awards for construction contracts totaled approximately $145.8 million in FY 2019, with MBE and WBE participation at $48.0 million (32.8%) and $9.0 million (6.2%), respectively as of September 30, 2019 **(Q)**.

## Community Involvement

| Indicator Reference | Indicator | Criteria |
|---|---|---|
| **(R)** | Total number of contractors employed by the DC Clean Rivers Project | Number of employees, as reported by DC Clean Rivers Project contractors, employed by DC Clean Rivers Project contractors from inception to date as of fiscal year end. |
| | Percentage of DC Clean Rivers Project contractors that reside within the District or DC Water's service territory | Percentage of DC Clean Rivers Project contractors that reside within the District of Columbia and Montgomery, Prince George's, Fairfax, and Loudoun Counties as of fiscal year end. |
| **(S)** | Number of public meetings | Number of public meetings, including meetings with neighborhood groups, elected officials, civic associations, local businesses, community groups, and public town halls related to DC Clean Rivers Project conducted by DC Water staff members during the fiscal year. |

The DC Clean Rivers Project employed a total of 5,679 contractors **(R)**. Approximately 2,667 or 47% of the contractors **(R)** reside within the District or DC Water's service territory, which includes the suburban jurisdictions of Montgomery and Prince George's counties in Maryland, and Fairfax and Loudoun counties in Virginia. In FY 2019, the DC Clean Rivers Project held a total of 40 public meetings **(S)**, including meetings with neighborhood groups, elected officials, civic associations, local businesses, community groups, and block meetings..

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**KPMG**

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**Independent Accountants' Review Report**

Board of Directors
District of Columbia Water and Sewer Authority

We have reviewed the indicators identified by Indicator Reference Letters (A) – (S) (the Indicators) in the accompanying District of Columbia Water and Sewer Authority Green Bond Report for the year ended September 30, 2019 (the Green Bond Report). The District of Columbia Water and Sewer Authority's management is responsible for presenting the Indicators in accordance with the corresponding criteria set forth on pages 3 through 12 of the Green Bond Report (the Criteria). Our responsibility is to express a conclusion on the Indicators based on our review.

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the review to obtain limited assurance about whether any material modifications should be made to the Indicators in order for them to be presented in accordance with the Criteria. A review is substantially less in scope than an examination, the objective of which is to obtain reasonable assurance about whether the Indicators are in accordance with the Criteria, in all material respects, in order to express an opinion. Accordingly, we do not express such an opinion. We believe that our review provides a reasonable basis for our conclusion.
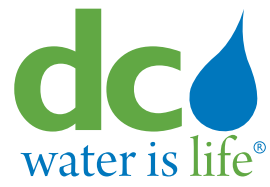
Based on our review, we are not aware of any material modifications that should be made to the indicators identified by Indicator Reference Letters (A) – (S) in order for them to be presented in accordance with the corresponding criteria set forth on pages 3 through 12 of the District of Columbia Water and Sewer Authority Green Bond Report for the year ended September 30, 2019.

*KPMG LLP*

Washington, D.C.
February 25, 2020