

# Comprehensive Annual Financial Report

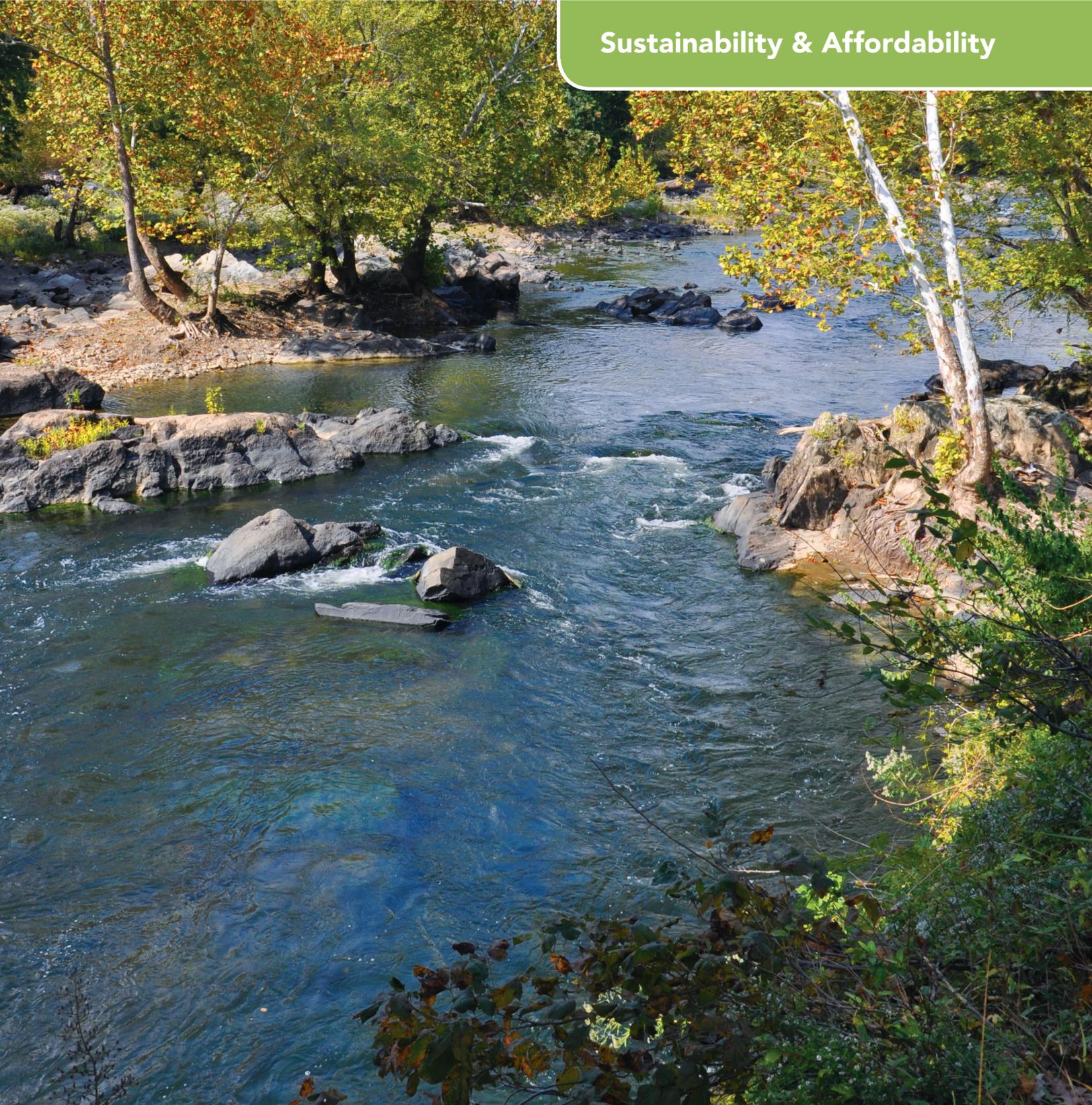
Fiscal Years Ended September 30, 2016 and 2015

George S. Hawkins, CEO and General Manager

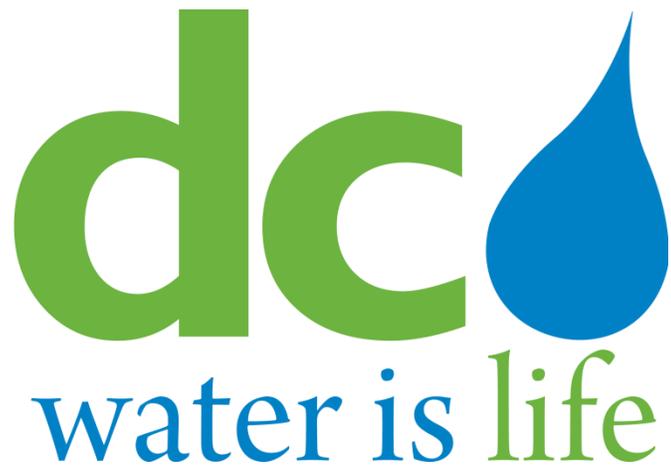
Mark T. Kim, Chief Financial Officer

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DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY



## Sustainability & Affordability



# **FY 2016**

District of Columbia Water and Sewer Authority

## **Comprehensive Annual Financial Report**

Fiscal Years  
Ended September 30, 2016 and 2015

Prepared by:  
Department of Finance, Accounting and Budget

**Mark T. Kim, Chief Financial Officer**

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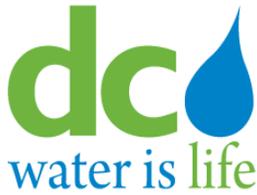
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**Introductory Section  
(Unaudited)**

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January 31, 2017

Board of Directors  
District of Columbia Water and Sewer Authority  
5000 Overlook Avenue, S.W.  
Washington, D.C. 20032

Dear Members of the Board:

I am pleased to present the District of Columbia Water and Sewer Authority's ("DC Water" or the "Authority") Comprehensive Annual Financial Report ("CAFR") for the fiscal year ended September 30, 2016. The Authority's financial statements were prepared in accordance with U.S. generally accepted accounting principles ("GAAP"), as promulgated by the Governmental Accounting Standards Board ("GASB") and audited by a firm of independent certified public accountants retained by DC Water. In accordance with the Authority's enabling legislation, DC Water is required to perform an annual audit of its financial statements and submit it to the District of Columbia's Mayor, Chief Financial Officer, and District Council.

Responsibility for the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with DC Water's management. To the best of my knowledge and belief, the information contained in this report is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of the Authority. All disclosures necessary for the reader to gain an understanding of DC Water's financial activity have been included.

DC Water's management is responsible for establishing and maintaining an internal control structure designed to ensure that its assets are adequately safeguarded against loss, theft, or misuse and to maintain accurate and reliable financial records for the preparation of financial statements and the representations made by management. The internal control structure is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that: 1) the cost of internal controls should not exceed the benefits derived from the controls; and 2) the evaluation of costs and benefits requires management's exercise of judgment. To the best of my knowledge and belief, DC Water's internal accounting controls adequately safeguard its assets and provide reasonable assurance of the proper recording of financial transactions in accordance with GAAP.

KPMG LLP, Certified Public Accountants, has been retained by DC Water to serve as its independent auditors and has issued an unmodified ("clean") opinion on DC Water's financial statements for the

years ended September 30, 2016 and 2015. The independent auditors' report is located at the front of the financial section of this report.

GAAP requires that management provide a narrative introduction, overview and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis ("MD&A"). This letter of transmittal is designed to supplement the MD&A and should be read in conjunction with it. DC Water's MD&A is located immediately following the independent auditors' report.

### **Overview of DC Water**

DC Water provides retail drinking water distribution and wastewater conveyance and treatment services to approximately 672,000 residential, commercial and governmental customers in the District of Columbia, and wholesale wastewater conveyance and treatment services to approximately 1.6 million users in Montgomery and Prince George's Counties in Maryland, and Fairfax and Loudoun Counties in Northern Virginia.

DC Water is governed by a Board of Directors consisting of eleven principal and eleven alternate members who represent the District of Columbia, Montgomery and Prince George's Counties in Maryland, and Fairfax County in Virginia. The Mayor of the District of Columbia appoints, and the District Council confirms, all District Board members, including the Chairperson. In addition, the Mayor appoints the five principals and five alternate members who represent the surrounding jurisdictions based on submissions from those jurisdictions. DC Water may only take action on policy matters after it receives a favorable vote of no less than six members of the Board of Directors. All Board members participate in decisions directly affecting the general management of the joint-use facilities. Only the District of Columbia Board members participate in matters that affect District ratepayers.

In the early history of the District, there were separate sewer, water and sanitation departments. Over the years, DC Water underwent several name and organizational changes, while remaining committed to its core mission. Between 1935 and 1938, DC Water operated as the District of Columbia Department of Sanitary Engineering. It was during this time that the first sewage treatment plant at Blue Plains was constructed. In the early 1970s, DC Water was known as the District of Columbia Department of Environmental Services. Later, in 1985, DC Water became a part of the District of Columbia Department of Public Works.

In 1996, the regional participants in DC Water's service area, including the District of Columbia, Montgomery and Prince George's Counties in Maryland, Fairfax and Loudoun Counties in Virginia, and the United States Congress agreed to create an independent, multi-jurisdictional water and wastewater authority from its predecessor agency. In April 1996, the Council of the District of Columbia passed the "Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996 (as amended)" (the "Act"), a statute that established DC Water as an operationally, financially, and legally independent authority on October 1, 1996.

In accordance with the Act, the District authorized DC Water to use all of the property and assets related to its water distribution and wastewater treatment and conveyance services and transferred to DC Water any liabilities that were directly attributable to those assets. The District has retained full legal title to these assets. The assets will remain under the control of DC Water for as long as any revenue bonds remain outstanding.

The Act also requires DC Water to establish rates, fees and other charges for all services provided by DC Water. These rates, fees and charges, in addition to certain wholesale wastewater treatment contracts, are projected to generate revenues adequate to pay all of the costs of operating DC Water. DC Water's rate setting powers are not subject to the oversight of, or regulation by, the District or any other agency or authority.

DC Water's service area below is approximately 725 square miles and covers the District of Columbia, most of Montgomery and Prince George's Counties, and portions of Fairfax and Loudoun Counties.



## **Accounting and Budget Processes**

### *Basis of Accounting*

The financial statements of the Authority have been prepared in conformity with U.S. generally accepted accounting principles (“GAAP”) as applicable to governmental entities. The Governmental Accounting Standards Board (“GASB”) is the accepted primary standard-setting body for establishing governmental accounting and financial reporting standards. DC Water prepares its financial statements using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized when earned, and expenses are recognized when incurred, regardless of the timing of the related cash flows.

### *Financing Policies*

The primary objective of DC Water’s financing policies is to ensure that its financial practices result in high quality investment-grade bond ratings to achieve the lowest cost of capital necessary to finance DC Water’s capital improvement program. Under its Master Indenture of Trust, DC Water is legally obligated to maintain 1.2 times debt service coverage on its senior lien debt and establish an operating reserve fund equal to 60 days of operations and maintenance costs (O&M). By policy, the Board has established more conservative financial targets and is committed to maintaining 1.4 times debt service coverage on its senior lien debt and an operating cash reserve requirement equivalent to the greater of 120 days of O&M or \$125.5 million. In addition, DC Water has established policies for utilizing any operating surplus for funding pay-as-you-go capital expenditures (Pay-Go) or contributing to the Rate Stabilization Fund (RSF).

### *Budgetary Control*

Budgetary control begins with the preparation of annual operating and capital budgets, which are developed on an expenditure basis. After a comprehensive review process by the Board’s Finance and Budget, Environmental Quality and Sewerage Services, Water Quality and Water Services, and DC Retail Water and Sewer Rates Committees, the budget is approved by the Board of Directors. DC Water’s financial management system is designed to prevent overspending of the budget without appropriate approvals. The Budget Department prepares monthly management reports for each operating unit as well as for the Board of Directors and its various committees. The reports are reviewed and acted upon each month to ensure DC Water complies with its authorized budget.

### *Annual Budget Process*

After approval by the Board, DC Water is required to submit its annual operating and capital budgets to the District for inclusion in the Mayor’s annual budget. The Mayor’s budget is in turn submitted to the District Council for its review and comment. Importantly, neither the Mayor nor District Council has the authority to modify or revise the annual budgets of DC Water. The District

then includes DC Water's budget as an enterprise fund as part of its own budget submission to the U.S. Congress for approval.

### **Economic Condition and Outlook**

Washington, D.C., is not only known as being the nation's capital, but it is also an international city with a vibrant tourist industry and business climate. The U.S. Census Bureau estimated that there were 672,228 residents in Washington, D.C. in 2015, an increase of 2.0% from the same period of the prior year. The Washington Metropolitan Region has a population of more than 6.1 million individuals and is the seventh largest metropolitan area in the country.

The District's economic base is driven by the federal and local governments as well as diplomatic embassies and international organizations. The federal civilian workforce in the District averaged 234,205 employees, while thousands more are estimated to work elsewhere in the metropolitan area. The District is host to more than 180 foreign embassies and other recognized diplomatic missions. A number of international organizations, such as the International Monetary Fund, World Bank, Inter-American Development Bank and Organization of American States are headquartered in the District. An estimated 21.3 million people visit the Washington Metropolitan Region on an annual basis, not only to do business with the federal government and local firms, but also to visit the national monuments, historic sites, museums and other major cultural attractions.

Income has grown considerably in the District in recent years. The unemployment rate in the District decreased from 8.2% in 2012 to 6.5% in 2016. The District's economy grew consistently faster than the national economy for much of this decade and is expected to continue to grow in 2017. The District's economy is relatively more information and service industry dependent than most states, accounting for the region's insulation from the most recent national housing and credit centric recession.

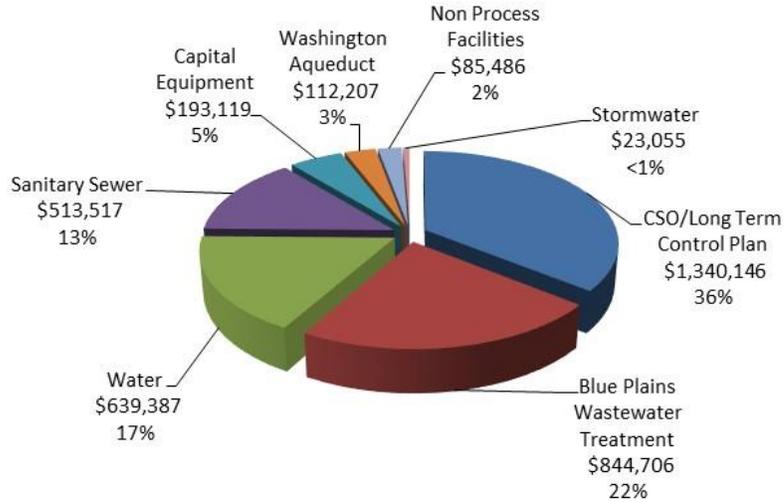
### **Major Initiatives**

#### *Capital Improvement Program*

DC Water's ultimate success in achieving its mission of providing world-class water and wastewater services as a leading steward of the environment depends in large part on the implementation of its 10-year \$3.8 billion capital improvement program ("CIP"). Approximately 36.9% of the CIP is either federally mandated or required by a court-ordered consent decree, including the Enhanced Nitrogen Removal Facilities ("ENRF") and the Clean Rivers Project.

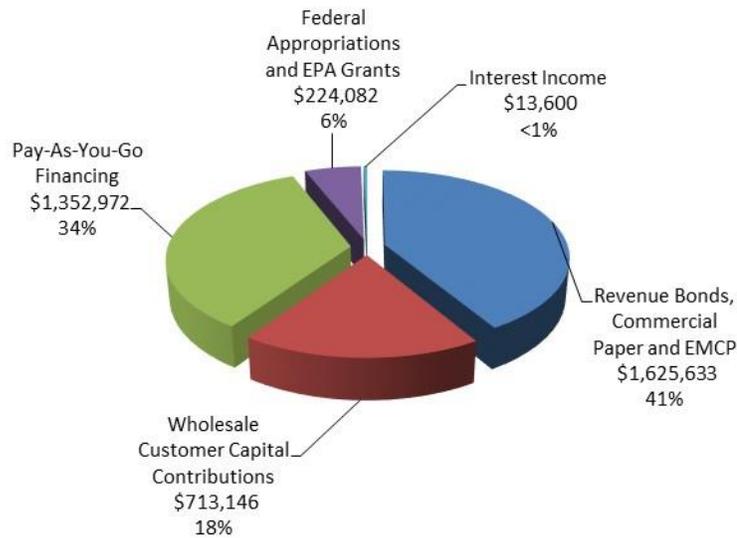
The Board approved Fiscal Year 2017 – 2026 CIP is broken into seven service areas, as shown in the following graph.

**Capital Improvement Program FY 2017 – FY 2026  
Uses of Funds (\$ in 000's)**



DC Water plans to finance its \$3.8 billion capital improvement program from a variety of sources, including the issuance of revenue bonds, grants from the U.S. Environmental Protection Agency (“EPA”), federal appropriations, capital contributions from wholesale customers and Pay-Go. Interim financing through issuance of commercial paper (“CP”) or extendible municipal commercial paper (“EMCP”) will be periodically converted to long-term financing through the issuance of bonds. As shown on the following chart, approximately 41% of capital financing will come from debt issuances.

**Capital Improvement Program FY 2017 – FY 2026  
Sources of Funds (\$ in 000's)**



## *Clean Rivers Project*

Approximately one-third of the District of Columbia is served by a combined sewer system, in which both sanitary sewage and storm water flow through the same pipes. When either the collection system or the Blue Plains treatment plant reach capacity, typically during periods of heavy rainfall, the system is designed to overflow the excess diluted sewage directly into District waterways. These events are referred to as combined sewer overflows (“CSO”). Combined sewers are not unique to the District and are commonly found in older wastewater collection systems especially in Northeast and Midwest regions of the United States. The Clean Rivers Project is being implemented on a schedule included in a consent decree between the EPA, U.S. Department of Justice (“DOJ”), District of Columbia, and DC Water. The consent decree was entered by the Court on March 23, 2005. The 2005 decree is a “grey” solution that required construction of three tunnel systems in the Anacostia River, Potomac River, and Rock Creek sewersheds.

The benefits of the Clean Rivers Project will be significant when fully implemented. CSOs are projected to be reduced by 93 percent into the Potomac River watershed and by 98 percent on the Anacostia River watershed and 90 percent in the Rock Creek watershed resulting in improved water quality and a significant reduction in debris from the combined sewer system in our local waterways. In addition, the Clean Rivers Project serves as a cornerstone of the District’s waterfront redevelopment initiatives including commercial, residential and other development projects on the Anacostia River.

The Clean Rivers Project is a \$2.8 billion capital project that includes a variety of capital improvements throughout the District including three massive, deep tunnel systems which will capture and store CSOs from storm events until they can be conveyed to Blue Plains for treatment.

Green Infrastructure (GI) technologies capture, infiltrate, treat and reuse polluted runoff before it enters the sewer system. These practices include rain gardens, porous pavements, green roofs, infiltration planters, trees and tree boxes, and rainwater harvesting for non-potable uses, such as toilet flushing and landscape irrigation.

On May 20, 2015, DC Water, District of Columbia, EPA and DOJ announced an agreement to modify the 2005 consent decree to allow for large-scale GI installations and other modifications to the Clean Rivers Project impacting the Potomac River and Rock Creek watersheds. The modification was approved and became effective on January 29, 2016. Anacostia River watershed will proceed with the planned tunnel solution. Under the modified agreement, DC Water is expected to eliminate or reduce the previously-planned underground tunnel for Rock Creek and Potomac River watersheds if the pilot GI projects in these watersheds are deemed practicable. Upon determination of their practicability, DC Water will instead build green infrastructure and targeted sewer separation to manage the volume of runoff produced by 1.2" of rain falling on 365 impervious acres of land that currently does not absorb stormwater. This portion of the project will be completed by 2030. If the pilot projects are deemed impracticable, DC Water will revert to grey solutions with same completion date of 2030.

These measures are intended to achieve compliance with EPA's nutrient limits for nitrogen and phosphorus as required by the current NPDES permit. The amended decree will provide DC Water an additional five years to complete the work required to address CSOs resulting in an extension of the final compliance date from 2025 to 2030.

The GI projects underway for Rock Creek and Potomac River watersheds will be implemented during the next five years and results will be evaluated to determine either implementation of large-scale GI or return to "grey" infrastructure solution. In order to protect DC Water stakeholders, DC Water issued the industry's first Environmental Impact Bond. Similar in nature to "pay for success" bonds, the borrowing is designed to pay bondholders for successful results achieved in the GI projects or pay bondholders less in the event that successful results are not achieved. This historic issuance is expected to introduce the wastewater industry to alternative sources of funding for a national issue regarding EPA required effluent composition reductions to the nation's waterways.

#### *Digester Project*

DC Water's Biosolids Management Program ("BMP") is in operation. Expected savings are being realized related to electricity generation, biosolids hauling and land application costs. Efforts continue to develop alternative revenue sources through commercialization of class A biosolids.

### **Recent Developments**

#### *Water System Replacement Fee*

DC Water successfully implemented the Water System Replacement Fee (WSRF) on October 1, 2016 without interruption in customer billing and collection activities. The WSRF is a new fixed fee to fund the one percent per year drinking water system replacement program that will cost approximately \$40 million annually.

#### *2-Year Rate Increase for FY 2017 & FY 2018*

First time multi-year rate proposal adopted by the Board

- Greater certainty with respect to budget
- Reduced volatility with respect to revenues

#### *Credit Rating Upgrades*

In February 2016, Standard and Poor's Investors Service upgraded DC Water's credit rating for senior lien revenue bonds from AA+ to AAA, the highest rating available by a rating agency and the highest credit rating in DC Water history. Additionally, in April 2016, Moody's Investor Service upgraded DC Water's credit rating for senior lien revenue bonds from Aa2 to Aa1.

## **Government Finance Officers Association Awards**

### *CAFR Award*

The Authority's 2015 CAFR received the Government Finance Officers Association's ("GFOA") Certificate of Achievement for Excellence in Financial Reporting. The CAFR was judged based on its conformity to GAAP and its compliance with other financial, legal and contractual provisions. The Certificate of Achievement is the highest form of recognition in governmental accounting and financial reporting, and its attainment represents a significant accomplishment for any municipality or government agency. To date, DC Water has received the GFOA's CAFR award for every year of its existence as an independent Authority, for a total of nineteen consecutive awards.

### *Budget Award*

The Authority's 2015 operating and capital budgets received the GFOA's Distinguished Budget Presentation Award, the highest form of recognition in governmental budgeting. In order to qualify for the Distinguished Budget Presentation Award, DC Water's budget document was judged to be proficient in several categories, including presentation as a policy document, financial plan, operations guide and a communication device. The Authority has been the recipient of this prestigious award for the last sixteen years.

## **ACKNOWLEDGEMENTS**

With deep appreciation, I wish to recognize the outstanding leadership and personal commitment of Controller John Madrid and his dedicated team of professionals for their collective effort in drafting DC Water's FY 2016 Comprehensive Annual Financial Report.

Respectfully submitted,



Mark T. Kim

Chief Financial Officer



## BOARD OF DIRECTORS

### PRINCIPAL MEMBERS

**MATTHEW BROWN, CHAIR**, DISTRICT OF COLUMBIA  
**ELLEN O. BOARDMAN**, DISTRICT OF COLUMBIA  
**RACHNA BUTANI**, DISTRICT OF COLUMBIA  
**OBIORA “Bo” MENKITI**, DISTRICT OF COLUMBIA  
**VACANT**, DISTRICT OF COLUMBIA  
**VACANT**, DISTRICT OF COLUMBIA  
**TIMOTHY L. FIRESTINE**, MONTGOMERY COUNTY, MD  
**ELISABETH FELDT**, MONTGOMERY COUNTY, MD  
**NICHOLAS MAJETT**, PRINCE GEORGE’S COUNTY, MD  
**BRADLEY FROME**, PRINCE GEORGE’S COUNTY, MD  
**JAMES PATTESON**, FAIRFAX COUNTY, VA

### ALTERNATE MEMBERS

**HOWARD GIBBS**, DISTRICT OF COLUMBIA  
**ANA HARVEY**, DISTRICT OF COLUMBIA  
**REV. KENDRICK CURRY**, DISTRICT OF COLUMBIA  
**VACANT**, DISTRICT OF COLUMBIA  
**VACANT**, DISTRICT OF COLUMBIA  
**VACANT**, DISTRICT OF COLUMBIA  
**DAVID W. LAKE**, MONTGOMERY COUNTY, MD  
**BONNIE KIRKLAND**, MONTGOMERY COUNTY, MD  
**SHIRLEY BRANCH**, PRINCE GEORGE’S COUNTY, MD  
**ADAM ORTIZ**, PRINCE GEORGE’S COUNTY, MD  
**SARAH MOTSH**, FAIRFAX COUNTY, VA

## PRINCIPAL STAFF MEMBERS

### OFFICE OF THE GENERAL MANAGER

**GEORGE S. HAWKINS**, CEO AND GENERAL MANAGER  
**HENDERSON J. BROWN, IV**, GENERAL COUNSEL  
**BIJU GEORGE**, CHIEF OPERATING OFFICER

### OFFICE OF THE CHIEF FINANCIAL OFFICER

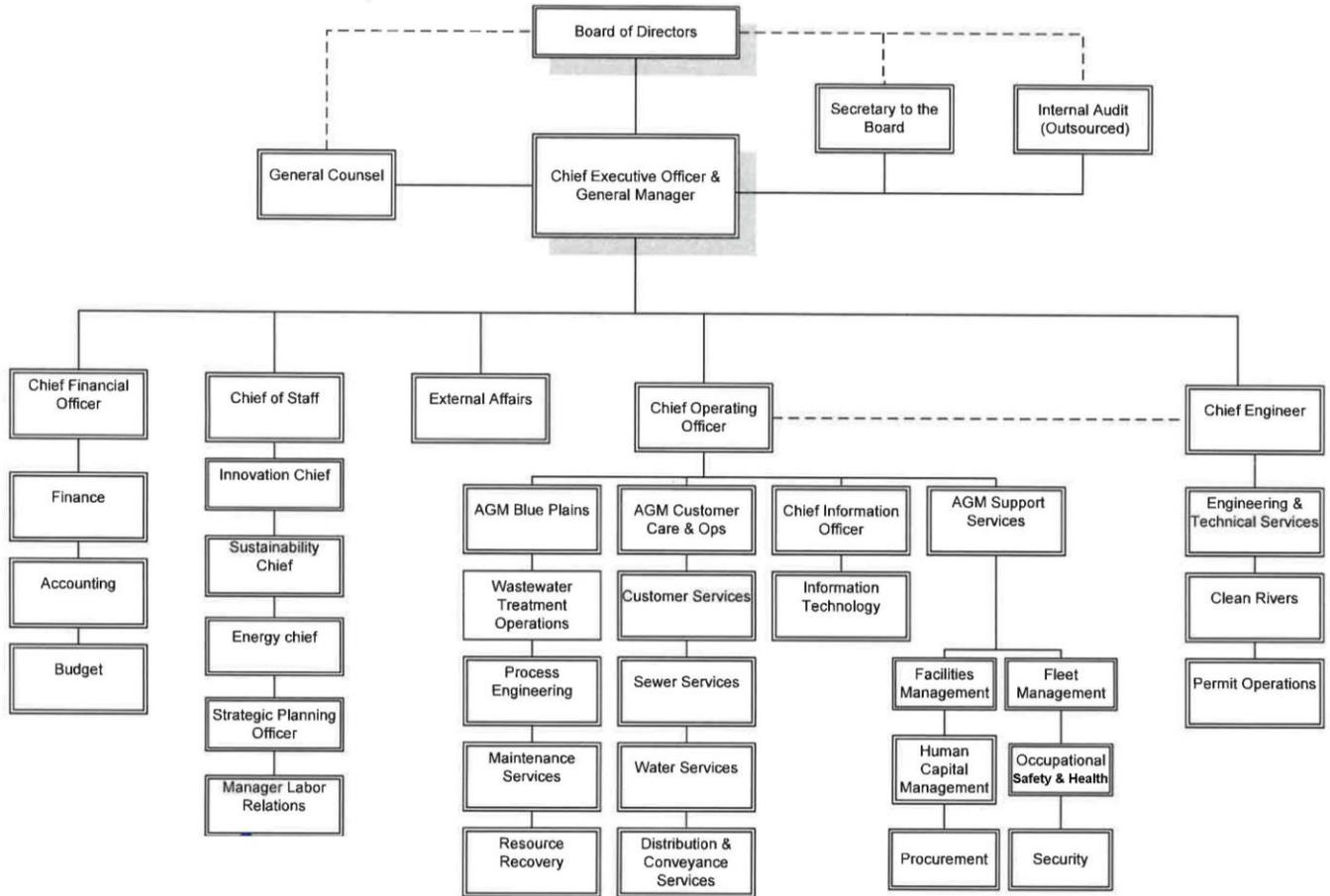
**MARK T. KIM**, CHIEF FINANCIAL OFFICER  
**JOHN MADRID**, CONTROLLER  
**ROBERT HUNT**, FINANCE DIRECTOR  
**GAIL ALEXANDER-REEVES**, BUDGET DIRECTOR  
**SYED KHALIL**, DIRECTOR, RATES AND REVENUE

### OPERATIONS AND ADMINISTRATION

**AKILE TESFAYE**, ASSISTANT GENERAL MANAGER  
WASTEWATER TREATMENT  
**LEONARD BENSON**, CHIEF ENGINEER, ENGINEERING AND  
TECHNICAL SERVICES  
**ROSALIND INGE**, ASSISTANT GENERAL MANAGER, SUPPORT  
SERVICES  
**CHARLES W. KIELY**, ASSISTANT GENERAL MANAGER  
CONSUMER SERVICES  
**THOMAS KUCZYNSKI**, CHIEF INFORMATION OFFICER  
**JOHN LISLE**, CHIEF OF EXTERNAL AFFAIRS



## Governance and Organizational Structure





Government Finance Officers Association

Certificate of  
Achievement  
for  
Excellence in  
Financial  
Reporting

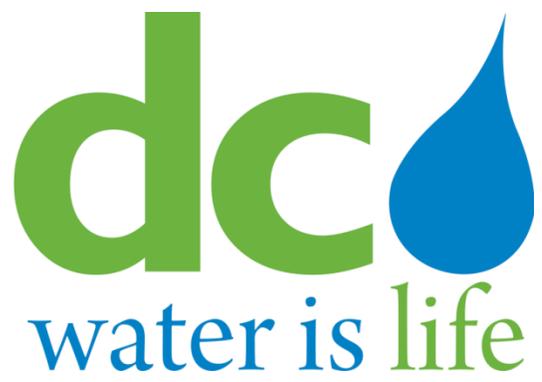
Presented  
to

**District of Columbia  
Water and Sewer Authority**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**September 30, 2015**

Executive  
Director/CEO



**Financial  
Section**

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KPMG LLP  
Suite 12000  
1801 K Street, NW  
Washington, DC 20006

## Independent Auditors' Report

Board of Directors  
District of Columbia Water and Sewer Authority

We have audited the accompanying financial statements of the District of Columbia Water and Sewer Authority (the Authority) as of and for the years ended September 30, 2016 and 2015, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements for the years then ended as listed in the table of contents.

### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### ***Auditors' Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the District of Columbia Water and Sewer Authority as of September 30, 2016 and 2015, and the changes in its financial position and its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

### ***Other Matters***

#### ***Required Supplementary Information***

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 19 through 31 be presented to supplement the basic financial statements. Such information, although not a part



of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information*

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Authority's basic financial statements. The introductory and statistical sections as listed in the table of contents have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

**KPMG LLP**

Washington, D.C.  
December 20, 2016

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis (unaudited)

September 30, 2016 and 2015

---

This section of the Authority's annual financial report presents our discussion and analysis of the Authority's financial position and changes in financial position as of and for the fiscal years ended September 30, 2016 and 2015. The Management's Discussion and Analysis ("MD&A") should be read in conjunction with the Authority's basic financial statements and the related notes to the financial statements, which immediately follow this section.

### Financial Highlights – Fiscal 2016

- In October 2015, the Authority issued \$100.0 million of 2015 Series A and \$250.0 million of 2015 Series B subordinate lien revenue bonds with fixed interest rates ranging from 2.0% to 5.25%. The 2015 Series A green bonds mature in 2045 and are being used to fund the Clean Rivers Project. The 2015 series B bonds mature in 2044 and \$62.0 million is being used to make principal and interest payments on all or a portion of the Authority's outstanding commercial paper notes and the balance is being used to fund the Authority's capital improvement program. Gross proceeds from the bond issuance totaled approximately \$406.6 million, including \$56.6 million original issue premium.

In February 2016, the Authority issued the subordinate lien revenue refunding bonds, 2016 Series A in the amount of \$389.1 million. The proceeds from the bonds were used to refund \$401.9 million of the Authority's outstanding bonds. The interest on the bonds are at fixed rates ranging from 2.0% to 5.0%.

In September 2016, the Authority issued \$25.0 million of 2016 Series B (Environmental Impact Bonds) subordinate lien revenue bonds. The 2016 Series B Bonds are multimodal variable rate bonds, initially issued bearing a 3.43% fixed rate through the mandatory tender date, April 1, 2021. The net issuance proceeds (after payment of \$0.5 million of issuance expenses) of \$24.5 million will be used for construction of Green Infrastructure (GI) for the Rock Creek Project A (RC-A).

The Authority's long-term debt, including current maturities, increased by \$381.1 million to \$2.9 billion, or 14.9%, primarily due to the \$350.0 million and \$25.0 million bond issuances described above.

- Operating revenues increased by \$45.9 million to \$595.8 million or 8.3%, primarily due to the retail rate increase of 6.5%, a 21.2% increase in Clean Rivers Impervious Area Charges (CRIAC) and the introduction of the new Water System Replacement Fee (WSRF) which resulted in \$39.6 million of new operating revenues in fiscal year 2016, offset by an 18.4% decrease in wholesale waste water charges.
- Operating expenses increased by \$9.7 million to \$388.4 million or 2.6%, primarily due to increases in personnel, depreciation expense and contractual services expense offset by a decrease in chemicals and supplies, utilities and water purchases.
- Capital assets, net of depreciation and amortization, increased by \$518.0 million to \$6.0 billion, or 9.5%, as a result of capital additions of \$607.5 million offset by depreciation and amortization of \$89.5 million. Capital additions incurred in 2016 were in line with the Authority's approved 10-year capital improvement program.
- Current assets increased by \$37.3 million to \$549.5 million, or 7.3%, primarily due to an increase in cash and investments offset by a decrease in receivables from other jurisdictions.
- The Authority's net position increased by \$173.3 million to \$1.7 billion, or 11.3%, as a result of current year operations and capital contributions.

## DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

### Management's Discussion and Analysis (unaudited)

September 30, 2016 and 2015

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- Effective October 1, 2015, the Authority raised its retail water and wastewater rates by 6.5% and its CRIAC by 21.2%.

#### Financial Highlights – Fiscal 2015

- In November 2014, the Authority issued the subordinate lien revenue refunding bonds, 2014 Series C in the amount of \$377.7 million. The proceeds from the bonds were used to refund \$378.2 million of the Authority's outstanding bonds. The interest on the bonds are at fixed rates ranging from 3.0% to 5.0%.
- Operating revenues increased by \$76.1 million to \$549.9 million or 16.1%, primarily due to the retail rate increase of 7.5% and a 16.2% increase in wholesale waste water charges.
- Operating expenses increased by \$22.6 million to \$378.7 million or 6.4%, primarily due to increases in personnel, chemicals and supplies, depreciation expense, and payments-in-lieu of taxes (PILOT) and right-of-way fee offset by a decrease in contractual services expense.
- Capital assets, net of depreciation and amortization, increased by \$543.3 million to \$5.5 billion, or 11.0%, as a result of capital additions of \$627.2 million offset by depreciation and amortization of \$83.9 million. Capital additions incurred in 2015 were in line with the Authority's approved 10-year capital improvement program.
- Current assets decreased by \$70.6 million to \$512.2 million, or 12.1%, due to a decrease in cash, investments and receivables from other jurisdictions.
- The Authority's net position increased by \$179.1 million to \$1.5 billion, or 13.3%, as a result of current year operations and capital contributions.
- Effective October 1, 2014, the Authority raised its retail water and wastewater rates by 7.5%.

#### Using This Annual Report

This annual report consists of three sections: Management's Discussion and Analysis; the Financial Statements; and Notes to the Financial Statements that explain in more detail some of the information in the Financial Statements.

#### Required Financial Statements

*The Statements of Net Position* includes the Authority's assets plus deferred outflows of resources and liabilities plus deferred inflows of resources and provides information about the nature and amounts of investments in resources (assets) and nature and extent of obligations (liabilities) with the difference between them being reported as net position. It also provides the basis for computing the rates of return, evaluating the capital structure of the Authority, and assessing the liquidity and financial flexibility of the Authority.

*The Statements of Revenues, Expenses, and Changes in Net Position* presents the changes in net position from one reporting period to another by accounting for revenues and expenses and measuring the financial results of operations. This statement measures the profitability of the Authority's operations over the past year and can be used to determine whether the Authority has successfully recovered all of its costs through its user fees and other charges.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis (unaudited)

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*The Statements of Cash Flows* provides information about the Authority's cash receipts, cash payments, and net changes in cash and cash equivalents resulting from operating, investing, and capital and non-capital financing activities. It also provides information regarding sources of cash, uses of cash, and changes in cash balances during the reporting period.

Notes to the financial statements include information essential to understand the above statements, such as the Authority's significant accounting policies and information about certain financial statement account balances.

### Financial Analysis of the Authority

#### Net Position

The Authority's total net position at September 30, 2016 was approximately \$1.7 billion, a \$173.3 million, or 11.3% increase from September 30, 2015. Total assets increased \$583.2 million, or 9.6% to \$6.7 billion, and total liabilities increased \$437.8 million, or 9.5%, to \$5.0 billion.

The Authority's total net position at September 30, 2015 was approximately \$1.5 billion, a \$179.1 million, or 13.3% increase from September 30, 2014. Total assets increased \$277.1 million, or 4.8% to \$6.1 billion, and total liabilities increased \$132.5 million, or 3.0%, to \$4.6 billion.

#### Summary of Net Position (\$ in 000's)

	Fiscal Year			2016 vs 2015		2015 vs 2014	
	2016	2015	2014	Amount	%	Amount	%
Current assets	\$ 549,496	\$ 512,226	\$ 582,782	37,270	7.3	(70,556)	(12.1)
Restricted assets	56,992	23,249	230,114	33,743	145.1	(206,865)	(89.9)
Capital assets	5,995,347	5,477,327	4,934,018	518,020	9.5	543,309	11.0
Other noncurrent assets	64,920	70,696	59,449	(5,776)	(8.2)	11,247	18.9
Total assets	6,666,755	6,083,498	5,806,363	583,257	9.6	277,135	4.8
Deferred outflows of resources	73,157	45,246	10,768	27,911	61.7	34,478	320.2
Current liabilities	440,888	471,766	434,141	(30,878)	(6.5)	37,625	8.7
Long-term debt outstanding	2,900,329	2,520,046	2,520,935	380,283	15.1	(889)	(0.0)
Long-term liabilities	1,695,406	1,606,990	1,511,240	88,416	5.5	95,750	6.3
Total liabilities	5,036,623	4,598,802	4,466,316	437,821	9.5	132,486	3.0
Net investments in capital assets	1,491,925	1,348,056	1,130,952	143,869	10.7	217,104	19.2
Restricted	33,135	27,054	28,863	6,081	22.5	(1,809)	(6.3)
Unrestricted	178,229	154,832	191,000	23,397	15.1	(36,168)	(18.9)
Total net position	\$ 1,703,289	\$ 1,529,942	\$ 1,350,815	173,347	11.3	179,127	13.3

## DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

### Management's Discussion and Analysis (unaudited)

#### September 30, 2016 and 2015

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The following is a discussion of the more significant changes in assets, liabilities and net position in 2016.

- Capital assets, net of depreciation and amortization, increased by \$518.0 million to \$6.0 billion, or 9.5%, as a result of capital additions of \$607.5 million offset by depreciation and amortization of \$89.5 million. Capital additions incurred in 2016 were in line with the Authority's approved 10-year capital improvement program which is discussed in more detail on page 13.
- Current assets increased by \$37.3 million to \$549.5 million, or 7.3%, primarily due to an increase in cash and investments offset by a decrease in receivables from other jurisdictions.
- Long-term debt, including current maturities, increased by \$381.1 million to \$2.9 billion, or 14.9%, primarily due to the issuance of \$100.0 million of 2015 Series A (Green Bonds) and \$250.0 million of 2015 series B subordinate lien revenue bonds for a total of \$350.0 million in October 2015, and the issuance of \$25.0 million of 2016 Series B (Environmental Impact Bonds) subordinate lien revenue bonds in September 2016.
- Current liabilities decreased by \$30.9 million to \$440.9 million, or 6.5%, primarily due to a \$28.6 million decrease in accounts payable and accrued expenses and a \$12.0 million decrease in commercial paper notes offset by a \$8.2 million increase in accrued interest.
- The Authority's net position increased by \$173.3 million to \$1.7 billion, or 11.3%, as a result of fiscal year 2016 operations and capital contributions.

The following is a discussion of the more significant changes in assets, liabilities and net position in 2015.

- Capital assets, net of depreciation and amortization, increased by \$543.3 million to \$5.5 billion, or 11.0%, as a result of capital additions of \$627.2 million offset by depreciation and amortization of \$83.9 million. Capital additions incurred in 2015 were in line with the Authority's approved 10-year capital improvement program which is discussed in more detail on page 13.
- Current assets decreased by \$70.6 million to \$512.2 million, or 12.1%, due to a decrease in cash, investments and receivables from other jurisdictions.
- Long-term debt, including current maturities, increased by \$1.1 million to \$2.5 billion, or 0.04%, primarily due to the \$377.7 million bond refunding in November 2014, which resulted in a net increase in long-term debt of approximately \$27.6 million, offset by scheduled principal payments on long-term debt of approximately \$26.5 million.
- Current liabilities increased by \$37.6 million to \$471.8 million, or 8.7%, primarily due to a \$50.0 million increase in commercial paper notes offset by a \$27.4 million decrease in accounts payable and accrued expenses, the majority of which relates to capital additions. The remaining increase is a result of increase in unearned revenues and accrued interest on long term debt.
- The Authority's net position increased by \$179.1 million to \$1.5 billion, or 13.3%, as a result of fiscal year 2015 operations and capital contributions.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis (unaudited)

September 30, 2016 and 2015

### Changes in Net Position

The increase in net position at September 30, 2016 was \$173.3 million, or 11.3%, as compared with September 30, 2015. The Authority's total operating revenues increased by 8.3% to \$595.8 million and total operating expenses increased by 2.6% to \$388.4 million.

The increase in net position at September 30, 2015 was \$179.1 million, or 13.3%, as compared with September 30, 2014. The Authority's total operating revenues increased by 16.1% to \$549.9 million and total operating expenses increased 6.4% to \$378.7 million.

### Change in Net Position (\$ in 000's)

	Fiscal Year			2016 vs 2015		2015 vs 2014	
	2016	2015	2014	Amount	%	Amount	%
Operating revenues	\$ 595,789	\$ 549,915	\$ 473,824	\$ 45,874	8.3	\$ 76,091	16.1
Operating expenses	388,384	378,660	356,024	9,724	2.6	22,636	6.4
Net non-operating revenues (expenses)	(66,489)	(60,093)	(68,311)	(6,396)	10.6	8,218	(12.0)
Change in net position before capital contributions	140,916	111,162	49,489	29,754	26.8	61,673	124.6
Capital contributions	32,431	67,965	94,690	(35,534)	(52.3)	(26,725)	(28.2)
Change in net position	173,347	179,127	144,179	(5,780)	(3.2)	34,948	24.2
Net position - beginning of year, as restated	1,529,942	1,350,815	1,206,636	179,127	13.3	144,179	11.9
Net position - end of year	\$ 1,703,289	\$ 1,529,942	\$ 1,350,815	\$ 173,347	11.3	\$ 179,127	13.3

The following provides a discussion as to the primary reasons for the more significant fluctuations in the Authority's revenues and expenses between fiscal years 2016 and 2015, and between fiscal years 2015 and 2014, respectively.

#### Fiscal Year 2016:

- Operating revenues increased by \$45.9 million to \$595.8 million or 8.3%, primarily due to a 6.5% rate increase on retail water, the 21.2% increase CRIAC and the introduction of the new WSRF, offset by an 18.4% decrease in wholesale waste water charges.
- Operating expenses increased by \$9.7 million to \$388.4 million or 2.6% due to increases in personnel, contractual services expense and depreciation expense offset by a decrease in chemicals and supplies, utilities and water purchases.

#### Fiscal Year 2015:

- Operating revenues increased by \$76.1 million to \$549.9 million or 16.1%, primarily due to a 7.5% rate increase on retail water and wastewater charges and \$15.7 million increase in wholesale wastewater charges.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

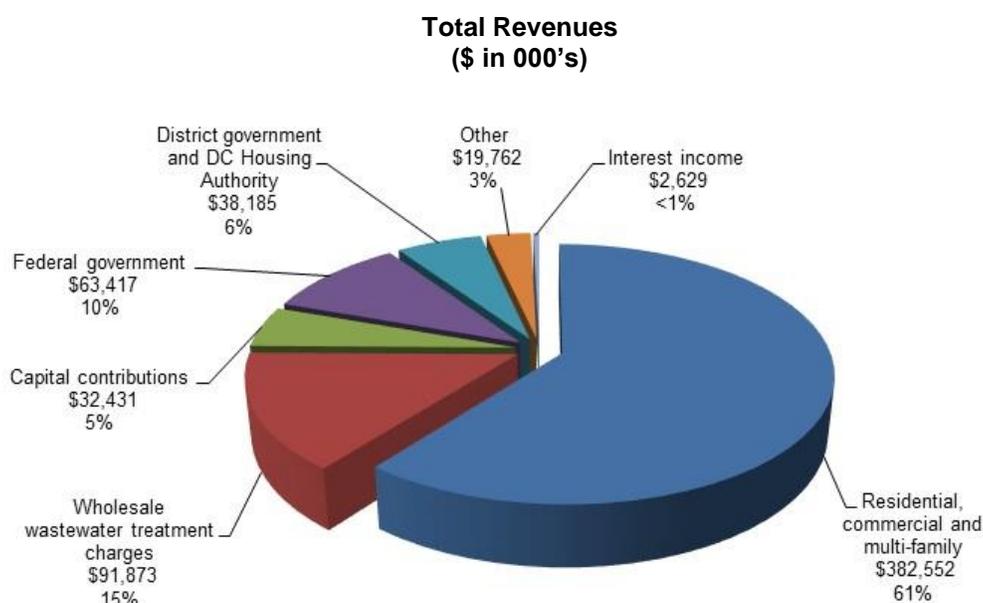
## Management's Discussion and Analysis (unaudited)

September 30, 2016 and 2015

- Operating expenses increased by \$22.6 million to \$378.7 million or 6.4% due to increase in personnel, utilities and rent, chemicals and supplies, and water purchase expenses offset by a decrease in PILOT and right-of-way fee.

### 2016 Total Revenues

Total revenues increased \$11.7 million or 1.9% to \$630.9 million in fiscal year 2016.



- Revenues from residential, commercial and multi-family customers increased by \$46.8 million to \$382.6 million, or 13.9%, primarily due to a 6.5% water and wastewater rate increase 21.2% increase in the Clean Rivers Impervious Area Charges (CRIAC) and introduction of new Water System Replacement Fee (WSRF).
- Revenues from the Federal government increased by \$9.1 million to \$63.4 million, or 16.9%, primarily due to a 6.5% rate increase, the introduction of the new WSRF, and a 21.2% increase in the CRIAC offset by consumption adjustments for several Federal agencies during fiscal year 2016.
- Revenues from the District government and the District of Columbia Housing Authority increased by a \$5.2 million to \$38.2 million, or 15.9%, primarily due to a 6.5% rate increase, new meter-based WSRF and 21.2% increase in CRIAC offset by a decrease in consumption and disputed payment from DC government for CRIAC.
- Revenues from wholesale wastewater treatment decreased by \$20.6 million to \$91.9 million, or 18.4%, primarily due to a decrease in the Intermunicipal agreement (IMA) shareable operating costs of the Blue Plains Plant.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

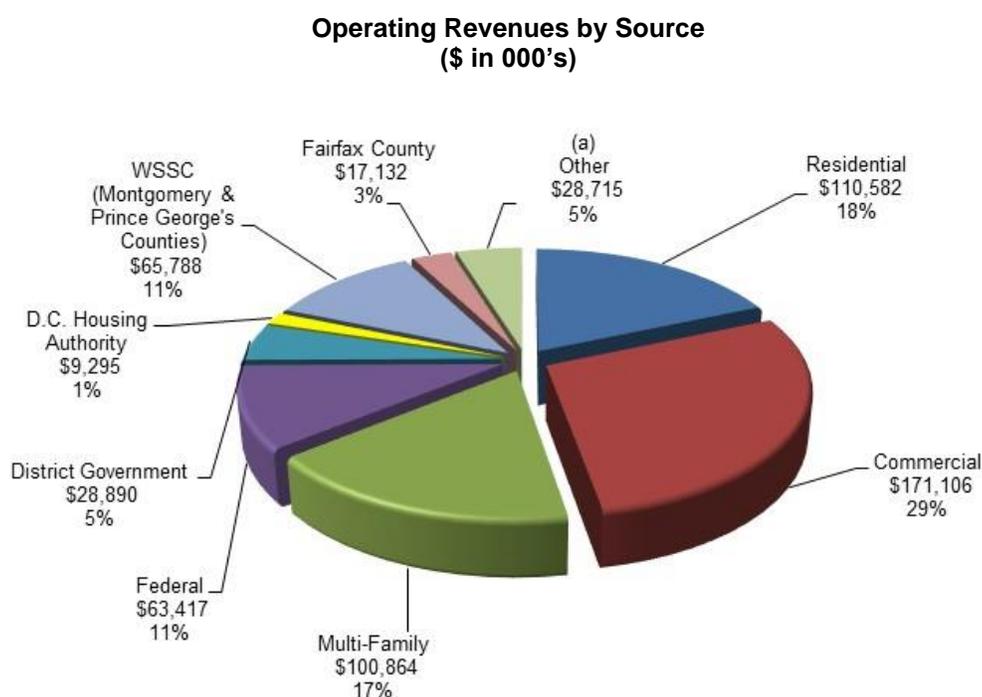
## Management's Discussion and Analysis (unaudited)

September 30, 2016 and 2015

- Other revenues increased by \$5.3 million to \$19.8 million, or 36.7%, primarily due to an increase in miscellaneous revenues from the Authority's other activities such as special projects billings.
- Capital contributions decreased by \$35.5 million or 52.3%, primarily due to an \$18.5 million reduction in federal grants and an \$18.4 million reduction in capital contributions from the District government for the Northeast Boundary Neighborhood project.

### Diversity and Stability of Operating Revenues

The Authority's operating revenue base is very diverse, including established customers such as the Federal government, the District government, surrounding jurisdictions in Maryland and Virginia, and commercial and residential customers within the District. As shown on the chart below, no one category accounts for more than 29% of total revenues.



(a) Other revenues include \$6.7 million from Loudoun County and \$2.2 million from Potomac Interceptor.

- Revenues from commercial and multi-family customers in the District comprise approximately 46% of the Authority's total operating revenues. Commercial revenues are reliable due to the presence of many national associations, law firms, consulting firms, and colleges and universities and foreign embassies in the District. The commercial customer category also includes multi-family dwellings.
- The Authority provides wastewater conveyance and treatment services to Montgomery and Prince George's Counties in Maryland through the Washington Suburban Sanitary Commission ("WSSC") and Fairfax and Loudoun Counties in Northern Virginia. Operating revenues from WSSC and Fairfax County account for 14% of the Authority's revenues and are based on their share of operating costs at Blue Plains. Loudoun County and Potomac Interceptor customers account for an additional 1.5% of the Authority's revenues and are included in other revenues.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis (unaudited)

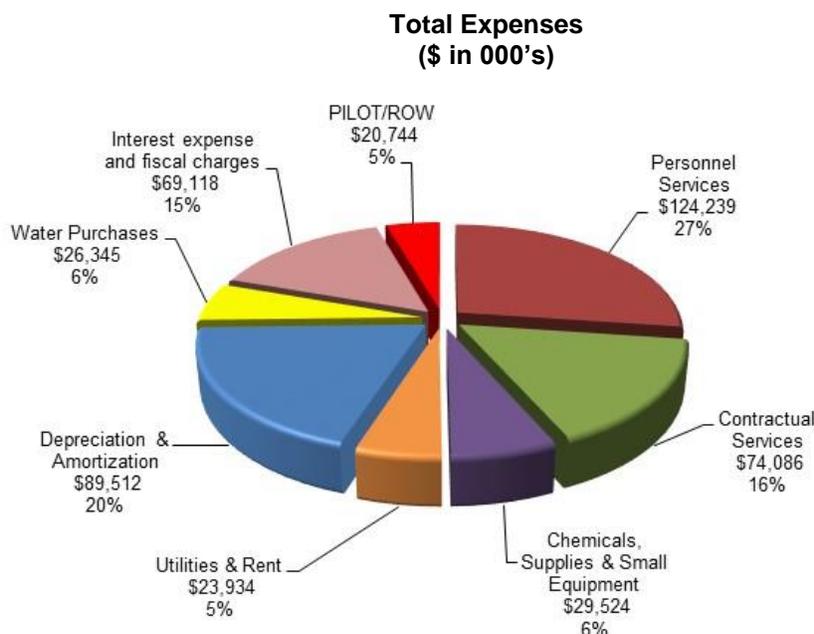
September 30, 2016 and 2015

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- Residential customers in the District account for 18% of total revenues.
- Revenues from the Federal government comprise 11% of the Authority's total operating revenues and include customers such as the U.S. Congress, the Smithsonian Institution, and a range of federal departments and agencies.
- Revenues from the Government of the District of Columbia and the District of Columbia Housing Authority make up 6% of total operating revenues.

### 2016 Total Expenses

Total expenses increased by \$17.4 million or 4.0% to \$457.5 million in fiscal year 2016.



- Personnel services increased by \$9.0 million to \$124.2 million, or 7.8%, primarily due to increases in wages, benefits and number of employees.
- Contractual services increased by \$7.8 million to \$74.1 million, or 11.8%, due to an increase in litigation costs offset by a reduction in biosolids hauling costs stemming from newly installed digester operations at the Blue Plains facility.
- Chemicals, supplies and small equipment decreased by \$3.4 million to \$29.5 million, or 10.4%, primarily due to lower unit prices and changes in the treatment process that utilizes less chemicals and uses thermal hydrolysis and the digester system's intense heat and pressure to treat wastewater.
- Utilities and rent decreased by \$6.9 million to \$23.9 million, or 22.4%, primarily due to onsite electricity generation from the Combine Heat Power (CHP) project, which became operational in the summer of 2015.

## DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

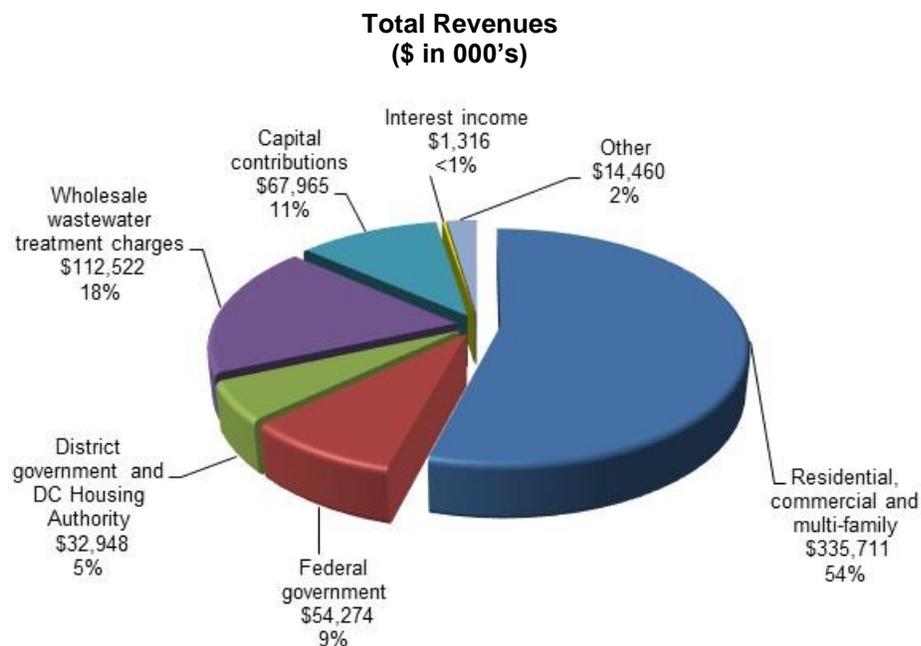
### Management's Discussion and Analysis (unaudited)

September 30, 2016 and 2015

- Depreciation and amortization increased by \$5.7 million to \$89.5 million, or 6.7%, primarily due to an increase in capital assets in service.
- Water purchases decreased by \$2.8 million to \$26.3 million, or 9.5%, primarily due to fiscal year 2015 billing adjustment and 2.6% decrease in unit cost per million gallons in fiscal year 2016.
- Interest expense and fiscal charges increased by \$7.7 million to \$69.1 million, or 12.6% primarily due to a \$7.8 million increase in interest costs incurred in fiscal year 2016 as a result of the increase in borrowings, offset by a \$10.8 million increase in the amount of capitalized interest related to the Authority's capital improvement program during fiscal year 2016.

#### 2015 Total Revenues

Total revenues increased \$49.7 million or 8.7% to \$619.2 million in fiscal year 2015.



- Revenues from residential, commercial and multi-family customers increased by \$40.5 million to \$335.7 million, or 13.7%, primarily due to a 7.5% water and wastewater rate increase and a 41.0% increase in impervious area charges.
- Revenues from the Federal government increased by \$15.3 million to \$54.3 million, or 39.2%, primarily due to a 7.5% rate increase and due to the fiscal year 2014 revenues being impacted by a Federal government shutdown and consumption adjustments for several Federal agencies during fiscal year 2014.
- Revenues from the District government and the District Housing Authority increased by \$4.1 million to \$32.9 million, or 14.2%, primarily due to a 7.5% rate increase coupled with a 4.0% increase in consumption.

## DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

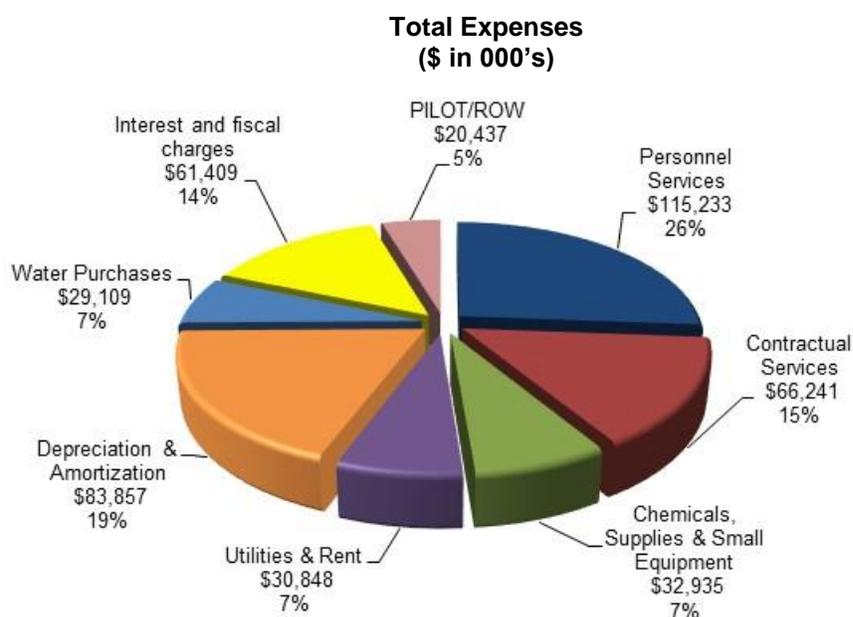
### Management's Discussion and Analysis (unaudited)

September 30, 2016 and 2015

- Revenues from wholesale wastewater treatment increased by \$15.7 million to \$112.5 million, or 16.2%, primarily due to a 22.7% increase in the Intermunicipal agreement (IMA) shareable operating costs of the Blue Plains Plant offset by reduced indirect cost charges.
- Other revenues increased by \$0.5 million to \$14.5 million, or 3.9%, primarily due to increased stormwater management fees.
- Capital contributions decreased by \$26.7 million or 28.2%, primarily due to a \$18.8 million reduction in capital contributions from the District government for the Northeast Boundary Neighborhood project and a \$8.0 million reduction in federal grants.

#### 2015 Total Expenses

Total expenses increased \$14.8 million or 3.5% to \$440.1 million in fiscal year 2015.



- Personnel services increased by \$6.8 million to \$115.2 million, or 6.2%, primarily due to increases in wages, benefits and number of employees.
- Contractual services decreased by \$1.9 million to \$66.2 million, or 2.8%, due to a decrease in biosolids hauling costs stemming from newly installed digester operations at the Blue Plains facility.
- Chemicals, supplies and small equipment increased by \$1.2 million to \$32.9 million, or 3.7%, primarily due to an increase in methanol usage attributable to a change in sewage treatment process.
- Utilities and rent increased by \$0.9 million to \$30.8 million, or 3.0%, primarily due to an increase in gas usage in producing steam converted to electricity for the Combined Heat Power (CHP) process.

## DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

### Management's Discussion and Analysis (unaudited)

September 30, 2016 and 2015

- Depreciation and amortization increased by \$6.0 million to \$83.9 million, or 7.7%, primarily due to an increase in capital assets in service.
- Water purchases increased by \$0.7 million to \$29.1 million, or 2.5%, primarily due to a 9.9% increase in consumption offset by a reduction in unit cost per million gallons purchased.
- Interest expense and fiscal charges decreased by \$7.9 million to \$61.4 million, or 11.4% primarily due to an increase in the amount of capitalized interest related to the Authority's capital improvement program which increased from \$40.3 million in fiscal year 2014 to \$52.0 million in fiscal year 2015.

#### Capital Assets and Debt Administration

##### Capital Assets

As of September 30, 2016, 2015 and 2014, respectively, the Authority had \$6.0 billion, \$5.5 billion and \$4.9 billion of capital assets (net of depreciation). This includes wastewater collection, wastewater treatment, water distribution systems, purchased capacity, capital equipment and construction in progress. The Authority's net capital assets increased by approximately \$518.0 million, or 9.5%, during fiscal year 2016, and increased by approximately \$543.3 million, or 11%, during fiscal year 2015, primarily due to continued capital spending in accordance with the Authority's capital improvement program. See note 4 to the financial statements for more information on capital assets.

#### Capital Assets Net of Accumulated Depreciation (\$ in 000's)

	As of September 30,		
	2016	2015	2014
Wastewater treatment plant	\$ 2,383,176	\$ 2,367,163	\$ 2,057,116
Wastewater collection facilities	843,095	828,130	758,603
Water distribution system	1,095,216	1,054,046	981,047
Purchased capacity	349,210	341,974	334,174
Capital equipment	220,584	203,573	191,409
Construction in progress	2,544,698	2,033,657	1,879,678
Less accumulated depreciation	(1,440,632)	(1,351,216)	(1,268,009)
Net capital assets	<u>\$ 5,995,347</u>	<u>\$ 5,477,327</u>	<u>\$ 4,934,018</u>

The Authority's contractual commitments are primarily associated with the long-term capital improvement program. Outstanding contractual commitments related to the capital improvement program as of September 30, 2016 and 2015 were \$861.7 million and \$967.0 million, respectively, which will be financed primarily with unspent bond proceeds, proceeds from future bond issuances, capital contributions from IMA participants, Federal capital contributions and PAY-GO capital contributions from the Authority.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis (unaudited)

September 30, 2016 and 2015

### Debt Administration

At the end of fiscal year 2016, the Authority had a total of \$2.9 billion in long term debt outstanding, an increase of \$381.1 million, or 14.9%, over fiscal year 2015.

At the end of fiscal year 2015, the Authority had a total of \$2.5 billion in long term debt outstanding, an increase of \$1.0 million, or 0.04%, over fiscal year 2014. See note 11 to the financial statements for more information on long-term debt outstanding.

A schedule of long-term debt activity including current year maturities for the year ended September 30, 2016 is shown below:

Description	Balance 9/30/2015	Increases	Decreases	Balance 9/30/2016
Outstanding bonds and notes	\$ 2,446,797	\$ 764,110	\$ (477,716)	\$ 2,733,191
Unamortized bond premiums	104,060	111,329	(16,712)	198,677
Unamortized bond discounts	(2,351)	-	129	(2,222)
Total bonds and notes	<u>\$ 2,548,506</u>	<u>\$ 875,439</u>	<u>\$ (494,299)</u>	<u>\$ 2,929,646</u>

In October 2015, the Authority issued \$100.0 million of 2015 Series A and \$250.0 million of 2015 Series B subordinate lien revenue bonds with fixed interest rates ranging from 2.0% to 5.25%. The 2015 Series A green bonds maturing in 2045 and are being used to fund the Clean Rivers Project. The 2015 series B bonds maturing in 2044 and will be used to fund the Authority's capital improvement program. Net proceeds from the bond issuance totaled approximately \$406.6 million including \$2.1 million of underwriter's discount and cost of issuance.

In February 2016, the Authority issued the subordinate lien revenue refunding bonds, 2016 Series A in the amount of \$389.1 million. The proceeds from the bonds were used to refund \$401.9 million of the Authority's outstanding bonds. The interest on the bonds are at fixed rates ranging from 2.0% to 5.0%.

In September 2016, the Authority issued \$25.0 million of 2016 Series B (Environmental Impact Bonds) subordinate lien revenue bonds. The 2016 Series B Bonds are multimodal variable rate bonds, initially issued bearing a 3.43% fixed rate through the mandatory tender date, April 1, 2021. The net issuance proceeds (after payment of \$0.5 million of issuance expenses) of \$24.5 million will be used for construction of GI for the RC-A.

The increases (decreases) in outstanding bonds and notes payable were related to new bond issuance, scheduled principal repayments and bonds refunding.

A schedule of long-term debt activity including current year maturities for the year ended September 30, 2015 is shown below:

Description	Balance 9/30/2014	Increases	Decreases	Balance 9/30/2015
Outstanding bonds and notes	\$ 2,473,790	\$ 377,700	\$ (404,693)	\$ 2,446,797
Unamortized bond premiums	76,098	51,085	(23,123)	104,060
Unamortized bond discounts	(2,480)	-	129	(2,351)
Total bonds and notes	<u>\$ 2,547,408</u>	<u>\$ 428,785</u>	<u>\$ (427,687)</u>	<u>\$ 2,548,506</u>

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis (unaudited)

September 30, 2016 and 2015

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In November 2014, the Authority issued the subordinate lien revenue refunding bonds, 2014 Series C in the amount of \$377.7 million. The proceeds from the bonds were used to refund \$378.2 million of the Authority's outstanding bonds. The interest on the bonds are at fixed rates ranging from 3.0% to 5.0%.

The increases (decreases) in outstanding bonds and notes payable were related to a bonds refunding and scheduled principal repayments.

### Credit Ratings

Long Term Credit Ratings		
Moody's Investors' Service	Aa1	Stable Outlook
Standard & Poor's Corporation	AAA	Stable Outlook
Fitch Ratings	AA	Stable Outlook

Short Term Credit Ratings	
Moody's Investors' Service	P-1
Standard & Poor's Corporation	A-1+
Fitch Ratings	F1+

### Rates

Effective October 1, 2015, the Authority raised its retail water and wastewater rates by 6.5%. The Authority's approved ten-year financial plan includes projected annual rate increases of 5.0% for each of the fiscal years 2017 to 2026 and also includes projected revisions to its metering, right-of-way fee and payment-in-lieu of taxes pass-through, the Clean River Impervious area charge (CRIAC) and the Water System Replacement Fee (WSRF).

### Contacting the Authority's Financial Management

This financial report is designed to provide our customers and other stakeholder with a general overview of the Authority's finances. If you have questions about this report or need additional financial information, contact the Office of the Chief Financial Officer at 5000 Overlook Avenue, S.W., Washington D.C. 20032 or call 202-787-2000. A copy of this report is also available on DC Water's web site at [www.dewater.com](http://www.dewater.com).

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**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**  
**Statements of Net Position**  
**September 30, 2016 and 2015**  
(In thousands)

<b>Assets and Deferred Outflows of Resources</b>	<b>2016</b>	<b>2015</b>
<b>Current assets:</b>		
Cash and cash equivalents (note 3)	\$ 112,283	\$ 81,326
Investments (note 3)	106,982	115,758
Restricted cash and cash equivalents (note 3)	96,674	152,323
Restricted investments (note 3)	98,803	—
Customer receivables, net of allowance for doubtful accounts of \$15,042 in 2016 and \$12,364 in 2015 (note 7)	67,015	62,653
Due from other jurisdictions (note 8)	14,960	44,399
Due from Federal government (note 6)	28,373	32,478
Due from District government (note 13)	6,411	10,022
Inventory	12,309	9,234
Prepaid assets	5,686	4,033
<b>Total current assets</b>	<b>549,496</b>	<b>512,226</b>
<b>Noncurrent assets:</b>		
Restricted assets (note 3):		
Cash and cash equivalents	29,041	—
Investments	27,951	23,249
<b>Total restricted cash and cash equivalents and investments</b>	<b>56,992</b>	<b>23,249</b>
Capital assets (note 4):		
In-service	4,891,281	4,794,886
Less accumulated depreciation	(1,440,632)	(1,351,216)
<b>Net capital assets in service</b>	<b>3,450,649</b>	<b>3,443,670</b>
Construction-in-progress	2,544,698	2,033,657
<b>Net capital assets</b>	<b>5,995,347</b>	<b>5,477,327</b>
Other noncurrent assets:		
Due from District government (note 13)	46,864	51,711
Due from other jurisdictions (note 8)	18,056	18,985
<b>Total other noncurrent assets</b>	<b>64,920</b>	<b>70,696</b>
<b>Total noncurrent assets</b>	<b>6,117,259</b>	<b>5,571,272</b>
<b>Total assets</b>	<b>6,666,755</b>	<b>6,083,498</b>
<b>Deferred Outflows of Resources</b>		
Deferred loss on debt refunding	73,157	45,246
<b>Total assets and deferred outflows of resources</b>	<b>6,739,912</b>	<b>6,128,744</b>
<b>Liabilities</b>		
<b>Current liabilities:</b>		
Accounts payable and accrued expenses	160,025	188,600
Unearned revenue	74,866	79,370
Accrued interest	65,677	57,447
Commercial paper notes payable (note 10)	79,200	91,200
Current maturities of long-term debt (note 11)	29,317	28,460
Due to jurisdictions	7,906	8,344
Compensation payable (note 9)	11,971	9,116
Other liabilities (note 12)	11,926	9,230
<b>Total current liabilities</b>	<b>440,888</b>	<b>471,767</b>
<b>Noncurrent liabilities:</b>		
Long-term debt, excluding current maturities (note 11)	2,900,329	2,520,046
Unearned revenue	1,667,284	1,578,504
Other liabilities (note 12)	12,769	13,891
Compensated absences payable (note 9)	15,353	14,594
<b>Total noncurrent liabilities</b>	<b>4,595,735</b>	<b>4,127,035</b>
<b>Total liabilities</b>	<b>5,036,623</b>	<b>4,598,802</b>
<b>Net Position</b>		
Net investments in capital assets	1,491,925	1,348,056
Restricted for debt service	33,135	27,054
Unrestricted	178,229	154,832
<b>Total net position</b>	<b>\$ 1,703,289</b>	<b>\$ 1,529,942</b>

The notes to the basic financial statements are an integral part of these financial statements.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**  
**Statements of Revenues, Expenses and Changes in Net Position**  
**Years Ended September 30, 2016 and 2015**  
(In thousands)

	<b>2016</b>	<b>2015</b>
Operating revenues:		
Water and wastewater user charges:		
Residential, commercial and multi-family customers	\$ 382,552	\$ 335,711
Federal government	63,417	54,274
District government and D.C. Housing Authority (note 13)	38,185	32,948
Charges for wholesale wastewater treatment	91,873	112,522
Other	19,762	14,460
<b>Total operating revenues</b>	<b>595,789</b>	<b>549,915</b>
Operating expenses:		
Personnel services	124,239	115,233
Contractual services	74,086	66,241
Chemicals, supplies and small equipment	29,524	32,935
Utilities and rent	23,934	30,848
Depreciation and amortization	89,512	83,857
Water purchases	26,345	29,109
Payment in lieu of taxes and right of way fee (note 13)	20,744	20,437
<b>Total operating expenses</b>	<b>388,384</b>	<b>378,660</b>
<b>Operating income</b>	<b>207,405</b>	<b>171,255</b>
Nonoperating revenues (expenses):		
Interest income	2,629	1,316
Interest expense and fiscal charges	(69,118)	(61,409)
<b>Total nonoperating (expenses)</b>	<b>(66,489)</b>	<b>(60,093)</b>
Change in net position before capital contributions	140,916	111,162
Capital contributions (note 5)	32,431	67,965
<b>Change in net position</b>	<b>173,347</b>	<b>179,127</b>
<b>Net position, beginning of year</b>	<b>1,529,942</b>	<b>1,350,815</b>
<b>Net position, end of year</b>	<b>\$ 1,703,289</b>	<b>\$ 1,529,942</b>

The notes to the basic financial statements are an integral part of these financial statements.

## DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

### Statements of Cash Flows

Years Ended September 30, 2016 and 2015

(In thousands)

	2016	2015
<b>Cash flows from operating activities:</b>		
Cash received from customers	\$ 565,997	\$ 517,940
Cash paid to suppliers for goods and services	(176,871)	(145,835)
Cash paid to employees for services	(120,625)	(114,120)
Cash paid to District for PILOT and ROW	(20,744)	(40,560)
<b>Net cash provided by operating activities</b>	<b>247,757</b>	<b>217,425</b>
<b>Cash flows from capital and related financing activities:</b>		
Proceeds from issuance of revenue bonds	875,439	428,785
Proceeds from other jurisdictions	146,722	154,886
Repayments of bond principal and notes payable to Federal government	(477,716)	(404,693)
Acquisition of capital assets	(549,018)	(609,172)
Payments of interest and fiscal charges	(168,182)	(166,393)
Contributions of capital from Federal government	33,470	35,893
Proceeds from issuance of commercial paper	612,800	332,400
Repayments of commercial paper	(624,800)	(282,400)
<b>Net cash used in capital and related financing activities</b>	<b>(151,285)</b>	<b>(510,694)</b>
<b>Cash flows from investing activities:</b>		
Cash received for interest	2,607	1,994
Investment purchases	(488,542)	(252,076)
Investment maturities	393,812	514,322
<b>Net cash provided by (used in) investing activities</b>	<b>(92,123)</b>	<b>264,240</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>4,349</b>	<b>(29,029)</b>
<b>Cash and cash equivalents at beginning of year</b>	<b>233,649</b>	<b>262,678</b>
<b>Cash and cash equivalents at end of year</b>	<b>\$ 237,998</b>	<b>\$ 233,649</b>
<b>Operating income</b>	<b>\$ 207,405</b>	<b>\$ 171,255</b>
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization	89,512	83,857
Change in operating assets and liabilities:		
Increase in customer and other receivables	(143)	(18,249)
Increase in inventory and prepaid assets	(4,728)	(3,143)
Decrease in payables and accrued liabilities	(15,168)	(3,352)
Decrease in unearned revenue	(29,121)	(12,943)
<b>Net cash provided by operating activities</b>	<b>\$ 247,757</b>	<b>\$ 217,425</b>
<b>Noncash Investing, Capital and Financing Activities:</b>		
Capital asset additions included in accounts payable	\$ 135,176	\$ 144,651
Net increase (decrease) in the fair value of investments	270	(232)

The notes to the basic financial statements are an integral part of these financial statements.

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# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (1) Background, Governance, Operations and Reporting Entity

#### (a) *Background*

The District of Columbia Water and Sewer Enterprise Fund (the "Fund") was established in 1979 and was operated by the Water and Sewer Utility Administration, a division of the Government of the District of Columbia (the "District") Department of Public Works. The District of Columbia Water and Sewer Authority ("DC Water" or the "Authority"), an independent authority of the District, was created in April 1996 and began operating on October 1, 1996 under and pursuant to an act of the Council of the District entitled the "Water and Sewer Authority and Department of Public Works Reorganization Act of 1996 (as amended)", and an Act of the United States Congress entitled the "District of Columbia Water and Sewer Authority Act of 1996". The Authority is considered a related organization of the District for purposes of presentation in the District's financial statements.

#### (b) *Governance*

The Authority is governed by a Board of Directors consisting of eleven principal and eleven alternate members. The Board is composed of six District of Columbia representatives, two each from Montgomery and Prince George's Counties in Maryland, and one from Fairfax County in Virginia. The Mayor of the District of Columbia appoints, and the DC Council confirms, all six District Board members and alternates, including the Chairman. In addition, the Mayor appoints the five principal and alternate members who represent the surrounding jurisdictions based on executive submissions from those jurisdictions.

#### (c) *Operations*

The Authority provides water and wastewater services to District residents, businesses, federal and municipal customers, and certain facilities of the Federal government in Virginia and Maryland. DC Water also operates a regional advanced wastewater treatment plant (Blue Plains) and an interceptor trunk line that carries wastewater primarily from Loudoun and Fairfax Counties and Dulles Airport to the Blue Plains wastewater treatment facility.

The Authority's wastewater service territory includes over 2.1 million people in Montgomery and Prince George's Counties in Maryland, Fairfax and Loudoun Counties in Virginia, and the District. The Blue Plains Intermunicipal Agreement between the Authority; the District; Fairfax County, Virginia; and the Washington Suburban Sanitary Commission ("WSSC"), which comprises Montgomery and Prince George's Counties in Maryland (collectively referred to as the "Participants"), was executed in September 1985 (the "1985 IMA").

The 1985 IMA was replaced in 2012 and became effective on April 3, 2013 by a new Intermunicipal Agreement (the "2012 IMA"), which was negotiated, approved and executed by each of the original signatories to the 1985 IMA. The IMA provides for the allocation of capital, operating, and maintenance costs among the Participants. Capital costs of the Plant are allocated among the Participants in proportion to their respective wastewater treatment capacity allocation as defined in the 2012 IMA. Operating costs are allocated based on wastewater flows from each participant.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (1) Background, Governance, Operations and Reporting Entity (Continued)

The Loudoun County Sanitation Authority and the Potomac Interceptor Group also purchase wastewater services from the Authority. The Potomac Interceptor Group consists of the Town of Vienna, Virginia; the U.S. Park Service; the U.S. Department of the Navy; and the Metropolitan Washington Airports Authority (Dulles Airport).

The Authority purchases water from the Washington Aqueduct (the "Aqueduct"), which is owned by the Federal government and operated by the U.S. Army Corps of Engineers (USACE) under the direction of the Secretary of the Army. Since 1852, an act of Congress placed the care, management, and superintendence of the Washington Aqueduct under the USACE. Under the Act, USACE was given responsibility for supplying water in the District for use by the Federal government and for the use and benefit of the inhabitants of the District. The USACE operates two water purification plants at the Aqueduct, Dalecarlia and McMillan, for the exclusive benefit of the Authority, Arlington County and Fairfax County Water Authority ("FCWA"). The Aqueduct facilities supply treated water to distribution systems of the Authority, Arlington County, FCWA, the Federal government, and other parts of northern Virginia.

As of January 3, 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 currently purchases approximately 73% of the finished water produced by the Aqueduct, and Arlington County and the FCWA purchase the remainder. Under this agreement, which remains in effect until September 30, 2023 and then thereafter until terminated, the Authority is responsible for funding approximately 73% of the Aqueduct's annual operating and capital costs. Additionally, the Authority obtains back-up and peak-day water supply from the Jennings Randolph Reservoir (Bloomington Dam) and Little Seneca Lake. The Jennings Randolph Reservoir was constructed by the Federal government and is operated by the USACE. The Little Seneca Lake was constructed and is operated by the WSSC.

#### (d) Reporting Entity

A financial reporting entity consists of a primary government and its component units. The criteria used to determine whether organizations are to be included as component units within the Authority's reporting entity are as follows:

- The Authority holds the corporate powers of the organization, and
- The Authority appoints a voting majority of the organization's board, and
- The Authority is able to impose its will on the organization, or
- The organization has the potential to impose a financial burden on, or provide a financial benefit to the Authority, or
- It would be misleading to exclude the organization from the Authority's financial statements.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (1) Background, Governance, Operations and Reporting Entity (Continued)

Based on the application of the above criteria, the Authority has no component units. Additionally, the Authority is not considered to be a component unit of the District as the District is not able to impose its will on the Authority, and the Authority does not impose a financial burden on or provide a financial benefit to the District.

### (2) Summary of Significant Accounting Policies

The financial statements of the Authority have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"), as applicable to governmental entities. The Governmental Accounting Standards Board ("GASB") is the accepted primary standard-setting body for establishing governmental accounting and financial reporting standards. The Authority's significant accounting policies are described below.

#### (a) *Measurement Focus and Basis of Accounting*

The financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned, and expenses are recorded when a liability is incurred, regardless of the timing of the related cash flows. Grants and similar items are recognized when all eligibility requirements imposed by the grantor have been met.

#### (b) *Cash and Cash Equivalents*

The Authority invests all unrestricted cash balances, in excess of the required compensating balances, in interest-bearing accounts. The Authority's cash equivalents at year end consist of unrestricted and restricted investments, such as registered money market mutual funds and U.S. government agency obligations, which have an original maturity of 90 days or less, and are readily convertible to known amounts of cash. For purposes of the accompanying statements of cash flows, cash and cash equivalents also include the Authority's restricted cash and cash equivalents.

#### (c) *Investments*

The Authority's investments at year end consist of unrestricted and restricted U.S. government agency obligations, U.S. Treasury notes, commercial paper, FDIC insured and negotiable certificates of deposit, corporate notes, supranational bonds and municipal bonds which have an original maturity in excess of 90 days. Money market investments and participating interest-earning investment contracts that have a remaining maturity at time of purchase of one year or less are reported at amortized cost. All other Investments are reported at fair value as of September 30, 2016 and 2015, respectively.

#### (d) *Inventory*

Inventory is recorded at the lower of weighted average cost or market value and consists primarily of operating and maintenance materials.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (2) Summary of Significant Accounting Policies (Continued)

#### (e) *Restricted Assets*

Restricted assets represent unspent revenue bond proceeds, funds for the current payment of debt service, and unspent Federal capital appropriations. These assets, which cannot be used for routine operations, are classified as restricted assets since their use is limited by the applicable debt covenants and Federal Appropriations Act.

#### (f) *Capital Assets*

The Authority's capital assets are comprised of the wastewater treatment plant, wastewater collection facilities, the water distribution system, purchased capacity, and capital equipment and fleet. Capital assets are reported at historical costs and include all ancillary costs. The wastewater treatment plant, collections facilities and water distribution system include project construction and development costs, internal engineering and construction management personnel costs, and interest costs incurred during the construction period.

Normal recurring maintenance and repair costs are charged to operations, whereas major repairs, improvements and replacements, which extend the useful lives of the capital assets, are capitalized. Construction-in-progress is transferred to capital assets in-service upon substantial completion or when placed in service, with related depreciation commencing at that time. The Authority's capitalization thresholds are: \$500 for wastewater treatment plant and collection facilities, and water distribution systems improvements; and \$5 for capital equipment and fleet.

Capital assets are depreciated using the straight-line method over the following estimated useful lives:

<u>Asset class</u>	<u>Estimated useful lives</u>
Wastewater treatment plant	60 years
Wastewater collection facilities	60 years
Water distribution systems	60 years
Purchased capacity	60 years
Capital equipment and fleet	3 - 20 years

The Authority recognizes a half-year of depreciation in the year the capital asset is placed in service and a half-year in the year of disposal.

As discussed in Note 1, the Authority is responsible for approximately 73% of the Aqueduct's operating and capital costs. The Authority records its share of operating costs as water purchases and capital costs as purchased capacity, an intangible asset. The Authority's policy is to capitalize capital costs required to be funded under long-term water purchase agreements and to amortize such costs over the shorter of the term of the contractual agreement or estimated useful life of the assets. For purposes of the Aqueduct, the Authority considers the term of the water purchase agreement to be indefinite as USACE is required by law to provide the Authority with a source of water from the Aqueduct and the Authority has no intent to terminate its Agreement to purchase water from USACE. Additionally, capital cost reimbursements made in prior years under the Authority's participation in the Jennings Randolph Reservoir (Bloomington Dam) and Little Seneca Lake projects are also included in purchased capacity.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (2) Summary of Significant Accounting Policies (Continued)

#### (g) *Deferred Outflows of Resources*

Deferred outflows of resources are defined as a consumption of net position by the Authority that is applicable to a future reporting period. Deferred outflows of resources increase net position, similar to assets. Deferred loss on bond refunding resulted from the difference between the carrying value of the refunded debt and its reacquisition price. Net losses are deferred and amortized over the life of the refunded or refunding debt, whichever is shorter.

#### (h) *Compensated Absences*

Employees earn vacation and sick leave based on a prescribed formula, which allows employees to accumulate an unlimited amount of sick leave, and vacation leave up to the maximum amounts shown in the table below. Vacation leave earned but unused by employees vests and is accrued as a liability. Generally, sick leave does not vest, and accordingly, it is recorded when used. However, as further discussed in Note 14d, the Authority Retirement Health Savings (RHS) Plan allows non-union, non-federal employees to use sick leave that is usually forfeited upon termination, to fund an account that can be used to pay for eligible medical expenses. Eligibility is established upon termination if an employee has five years of service and 100 hours of sick leave.

Accordingly, the Authority has recorded an accrual for earned sick leave only to the extent it is probable that the benefits will result in termination payments. In developing this estimate the Authority has taken into consideration past experience in making termination payments for sick leave, adjusted for the effect of changes in our termination payment policy and other current factors.

<u>Length of Service</u>	<u>Annual Carryover Limits</u>
Regular Union employees:	
1-3 years	240 hours
4-14 years	240-320 hours
Over 15 years	240-360 hours
Non-union employees:	
1-2 years	240 hours
3-6 years	320 hours
7 years	360 hours

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (2) Summary of Significant Accounting Policies (Continued)

#### (i) *Bond Premiums, Discounts and Issuance Costs*

Bond premiums and discounts incurred to issue debt are capitalized and amortized as interest expense over the related bond issue period using the effective interest method. Bond issuance costs are expensed in the period incurred.

#### (j) *Net Position*

Net position is categorized into three components as follows:

- *Net investments in capital assets* – This component of net position consists of capital assets, net of accumulated depreciation and amortization and is reduced by the outstanding balances of any bonds or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are also included in this component.
- *Restricted* – This component of net position consists of restrictions placed on net position as a result of external constraints imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation. When both restricted and unrestricted resources are available for use, generally it is the Authority's policy to use restricted resources first and the unrestricted resources when they are needed.
- *Unrestricted* – This component consists of net position that does not meet the definition of "restricted" or "net investments in capital assets."

#### (k) *Revenues and Expenses*

Revenues and expenses are distinguished between operating and non-operating items. Operating revenues generally result from providing services in connection with the Authority's principal ongoing operations.

The principal operating revenues of the Authority are water and wastewater user charges, and charges for wholesale wastewater treatment. Revenues from user charges and sales of services are recognized as the related services are provided.

Operating expenses include the costs associated with the conveyance of water and wastewater, treatment of wastewater, administrative expenses, District payments-in-lieu-of-taxes (PILOT) and right-of-way (ROW) fees, and depreciation and amortization of capital assets. All revenues and expenses not meeting these definitions are reported as non-operating revenues and expenses.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (2) Summary of Significant Accounting Policies (Continued)

#### (l) *Retail Water and Wastewater User Charges*

Retail water and wastewater rates are approved by the Authority's Board of Directors. Charges to the District and the Federal government are the same as those charged to retail customers. Charges for services provided but unbilled at the end of the year are recorded as revenue on an estimated basis, which considers historical usage patterns and current rates. Allowances for customer receivables that ultimately may be uncollectible are estimated and charged to expense. Amounts received in advance or in excess of the user charge for a billing period are recorded as unearned revenues until such time as these amounts are either refunded or applied against future user charges.

#### (m) *Charges for Wholesale Wastewater Treatment and Unearned Revenue*

The cost of operating and maintaining the wastewater treatment plant and related collection facilities applicable to non-District users is billed to participating jurisdictions based upon their share of flows in accordance with terms of the IMA agreement discussed in Note 1c. The charges for operating and maintenance costs and for overhead costs incurred on capital projects are recorded as charges for wholesale wastewater treatment revenue in the year the costs are incurred. The costs of capital projects required for the joint use facilities are allocated to the participating jurisdictions based on their applicable capacity allocation as set forth in the 2012 IMA. The reimbursements for capital related costs are recorded as unearned revenue and are amortized into user charges for wholesale wastewater treatment revenues over the estimated useful lives of the related assets.

#### (n) *Contingencies*

Liabilities from loss contingencies arising from claims, assessments, litigation, fines and penalties, and other sources, are recorded when information available before the financial statements are issued indicates that it is probable that an asset has been impaired or a liability has been incurred at the date of the financial statements and the amount of the loss can be reasonably estimated. When the reasonable estimate of the loss is a range, and when no amount within the range is a better estimate than any other amount, the Authority accrues a loss for the minimum amount in the range.

#### (o) *Use of Estimates*

The preparation of financial statements in conformity with U.S generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets, deferred outflows of resources, liabilities and deferred inflows of resources and disclosure of contingent assets and liabilities at the date of the basic financial statements. Estimates also affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

### (2) Summary of Significant Accounting Policies (Continued)

#### (p) Adoption of New Accounting Standards

During the fiscal year ended September 30, 2016, the Authority adopted the following new accounting standards issued by the Governmental Accounting Standards Board (GASB): Statement No. 72, *Fair Value Measurement and Application*; Certain provisions of Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*; Statement No. 76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments*; and Statement No. 79, *Certain External Investment Pools and Pool Participants*

Implementation of GASB Statement Nos. 73, 76 and 79 had no impact on the Authority's fiscal year 2016 financial statements. The Authority's implementation of GASB Statement No. 72 did not have a material impact but did result in additional required disclosures surrounding the inputs used to estimate fair value of the Authority's investments which are included in a new note to the financial statements. See note 3(c).

#### (q) New Accounting Pronouncements to be Implemented in the Future

The Authority plans to implement the following GASB pronouncements by the required implementation dates:

No.	Title	Required Implementation Date (Period Beginning After)	Authority Fiscal Year
73	Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68	June 15, 2015 and 2016	2016 and 2017
74	Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans	June 15, 2016	2017
75	Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions	June 15, 2017	2018
77	Tax Abatement Disclosures	December 15, 2015	2017
78	Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans	December 15, 2015	2017
80	Blending Requirements for Certain Component Units	June 15, 2016	2017
81	Irrevocable Split-Interest Agreements	December 15, 2016	2018
82	Pension Issues	June 15, 2016	2017

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (3) Cash Deposits and Investments

#### (a) Authorized Cash Deposits and Investments

The Authority's Investment Policy, which is compliant with the Authority's bond covenants and master indenture, requires that all cash and other deposits maintained in financial institutions be collateralized, including bank deposits and collateralized certificates of deposit. Collateral is required to be secured in accordance with the following policy: a) collateralization on all deposits of the Authority in excess of the amount protected by federal deposit insurance; and b) 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. Collateral shall always be held by an independent third-party custodian in the name of the Authority.

The Authority's Investment Policy permits investments in the following securities:

- (1) *U.S. Treasury Obligations.* U.S Treasury bills, notes, or any other obligation or security issued by or backed by the full faith and credit of the US Treasury. These securities shall be limited to a maximum maturity of five (5) years at the time of purchase.
- (2) *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, invest exclusively in the securities permitted under this investment policy, provided that the fund is rated "AAAm" or "AAAm-G" or the equivalent.
- (3) *Repurchase Agreements.* Contracts shall be invested in only if certain conditions are met, including: a) the Repurchase Agreement has a term to maturity of no greater than ninety (90) days; b) the contract is fully secured by deliverable U.S. Treasury and Federal Agency obligations, having a market value at all times of at least one hundred two percent (102%) of the amount of the contract; and c) the counterparty meets certain criteria specified in the Investment Policy.
- (4) *Federal Agency Obligations.* Bonds, notes, debentures, or other obligations or securities issued by a Federal government agency or instrumentality, except Collateralized Mortgage Obligations, with a rating of at least "AA" or equivalent from two major rating agencies. These obligations shall be limited to a maximum maturity of five (5) years at the time of purchase.
- (5) *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: a) the maturity is no greater than one hundred-eighty days (180) days; and b) it is rated not lower than 'A-1' or the equivalent.
- (6) *Commercial Paper.* Unsecured short-term debt of U.S. corporations may be purchased if certain conditions are met, including: a) the maturity is no greater than two hundred-seventy days (270) days; and b) 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 Nationally Recognized Statistical Rating Organizations ("NRSRO").

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (3) Cash Deposits and Investments (Continued)

- (7) *Collateralized Certificates of Deposit* in state chartered banks or federally chartered banks. Collateralized Certificates of Deposit shall be collateralized at 102%.
- (8) *Corporate Notes*. High quality corporate notes that meet the following criteria: 1) a rating of at least 'AA' (or its equivalent) from at least one NRSRO and a rating of at least 'A' (or its equivalent) from a second NRSRO; and 2) the final maturity shall not exceed a period of five (5) years from the time of purchase.
- (9) *FDIC insured Certificates of Deposit obtained through Certificate of Deposit placement services including the Certificate of Deposit Account Registry Service (CDARS)*. In 2012, the Authority began participating in CDARS program. The program allows the Authority to allocate funds into certificates of deposit in increments, which ensure the funds are eligible for full FDIC insurance.
- (10) *Federal Agency Mortgage-Backed Securities*. Issued by Fannie Mae, Freddie Mac, or the Government National Mortgage Association (GNMA) 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.
- (11) *Negotiable Certificates of Deposit and Bank Deposit Notes of domestic banks and domestic offices of foreign banks with:* a) ratings of at least 'A-1' (or its equivalent) by two NRSROs for maturities of one (1) year or less; b) a rating of at least 'AA' (or its equivalent) from at least one NRSRO and a rating of at least 'A' (or its equivalent) from a second NRSRO for maturities over one (1) year; and c) the final maturity shall not exceed a period of five (5) years from the time of purchase.
- (12) *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.
- (13) *Municipal Obligations*. Municipal bonds, notes and other evidences of indebtedness of the District or any state or local government may be purchased that meet certain criteria, including: a) final maturity on the date of investment not to exceed five (5) years; b) rated in either of the two highest rating categories by a NRSRO; and c) the total holdings of any single issue do not represent more than 25% of the total issue.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (3) Cash Deposits and Investments (Continued)

Additionally, the Authority's Investment Policy has established the following limits as to the maximum percentage of the investment portfolio that is permitted to be invested in each type of eligible security:

<u>Security</u>		<u>Security</u>	
Collateralized Bank Deposits	100%	Collateralized Certificates of Deposit	30%
U.S. Treasury Obligations	100%	Corporate Notes	30%
Registered Money Market Mutual Funds	100%	FDIC-insured Certificates of Deposit	30%
Repurchase Agreements	100%	Federal Agency Mortgage-Backed Securities	30%
Federal Agency Obligations	80%	Negotiable Certificates of Deposit	30%
Bankers' Acceptances	40%	Supranational Bonds	30%
Commercial Paper	35%	Municipal Obligations	20%

The Authority's Investment Policy also stipulates that no more than 5% of the Authority's portfolio will be invested in the securities of any single issuer with following exceptions:

U.S. Treasury	100% maximum
Each Mutual Fund	50% maximum
Each Repurchase Agreement Counterparty	50% maximum
Each Federal Agency	40% maximum

For the years ended September 30, 2016 and 2015, the Authority was in full compliance with the Investment Policy.

#### (b) Cash Deposits

At September 30, 2016 and 2015, the carrying amounts of the Authority's unrestricted and restricted bank deposits were \$112,215 and \$71,214 respectively. These bank deposits were entirely insured or collateralized with securities or letters of credit at 102% of the market value of principal, plus accrued interest held by the Authority's independent agent in the Authority's name.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**Notes to the Financial Statements**

**September 30, 2016 and 2015**

**(In thousands)**

**(3) Cash Deposits and Investments (Continued)**

**(c) Fair Value Measurements**

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The Authority is required to classify certain assets and liabilities based on the following fair value hierarchy:

**Level 1:** Quoted price in active markets for identical assets.

**Level 2:** Inputs other than quoted prices included in level 1 that are observable, either directly or indirectly. Debt securities are priced based on a compilation of primarily observable market information or broker quote in a non-active market.

**Level 3:** Inputs are significant unobservable inputs.

As noted in the following table, all of the Authority's investments that are reported at fair value have been measured using Level 2 inputs as of September 30, 2016 and 2015, respectively:

Investments by fair value level	Fair Value Measurement at Reportable Date Using Significant Other Observable Inputs (Level 2)	
	2016	2015
U.S. Treasury notes	\$ 37,997	\$ 54,610
Corporate notes	25,044	26,313
U.S. government agency obligations	67,184	15,365
Negotiable certificates of deposit	12,012	11,986
Supranational Bonds	3,755	-
Municipal bonds	4,743	120
Total investments at fair value	150,735	108,394
Investments and cash equivalents carried at amortized cost	208,784	193,048
Total investments and cash equivalents	<u>\$ 359,519</u>	<u>\$ 301,442</u>

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

### (3) Cash Deposits and Investments (Continued)

#### (d) Cash Equivalents and Investments

As of September 30, 2016 and 2015, the Authority held the following cash equivalents and investments:

Cash equivalents and investments	2016	Weighted Average Maturity (Years)	2015	Weighted Average Maturity (Years)
Registered money market mutual	\$125,783	0.083	\$162,435	0.083
U.S. government agency obligations	67,184	1.191	18,965	0.965
Commercial paper	62,792	0.257	1,792	0.589
U.S. Treasury notes	43,009	1.270	54,610	1.596
Corporate notes	25,044	1.772	26,313	2.153
FDIC-insured certificates of deposit	15,197	0.326	25,220	0.214
Negotiable certificates of deposit	12,012	0.839	11,987	1.168
Municipal bonds	4,743	2.324	120	2.033
Supranational Bonds	3,755	2.584	-	0.000
Total cash equivalents and investments	<u>\$359,519</u>	<u>0.671</u>	<u>\$301,442</u>	<u>0.651</u>

The Authority's exposure to foreign currency risk, interest rate risk, credit risk and custodial risk associated with its cash deposits and investments are described below:

*Foreign Currency Risk* – Foreign currency risk is the risk that changes in the exchange rates will adversely impact the fair values of an investment. The Authority's investments are not subject to foreign currency risk as the Authority held no investments denominated in foreign currency as of and for the years ended September 30, 2016 and 2015, respectively.

*Interest Rate Risk* – Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, an investment with a longer maturity will have a greater sensitivity to fair value changes that are related to market interest rates. As a means of limiting its exposure to fair value losses resulting from rising interest rates, the Authority's Investment Policy limits the Authority's investment portfolio to investments with certain maximum maturities.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

### (3) Cash Deposits and Investments (Continued)

The following are the maximum maturities established by the Authority's investment policy:

<u>Security</u>	<u>Maturities</u>	<u>Security</u>	<u>Maturities</u>
U.S. Treasury Obligations	5 years	Corporate Notes	5 years
Registered Money Market Mutual Funds	NA	FDIC-insured Certificates of Deposit	NA
Repurchase Agreements	90 days	Federal Agency Mortgage-Backed Securities	5 years
Federal Agency Obligations	5 years	Negotiable Certificates of Deposit	5 years
Bankers' Acceptances	180 days	Supranational Bonds	5 years
Commercial Paper	270 days	Municipal Obligations	5 years
Collateralized Certificates of Deposit	NA		

Additionally, the Authority monitors the interest rate risk inherent in its portfolio by measuring the weighted average maturity of its portfolio of debt instruments.

As reflected in the table on the previous page, the weighted average maturity of the Authority's investment portfolio was 0.671 years and 0.651 years as of September 30, 2016 and 2015, respectively.

*Credit Risk* – Generally, credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized rating organization. The Authority manages this risk by establishing minimum credit ratings in its investment policy.

The table below reflects the allocation of the Authority's investments by credit quality rating as of September 30, 2016:

<u>Investment Type</u>	<u>Credit Quality Rating</u>										<u>Total</u>
	<u>AAA</u>	<u>AA+</u>	<u>AA</u>	<u>AA-</u>	<u>A+</u>	<u>A</u>	<u>A-1</u>	<u>A-1+</u>	<u>AAA</u>	<u>Not Rated</u>	
U.S. government agency obligations		18.7%									18.7%
Commercial paper							13.3%	4.2%			17.5%
Registered money market mutual									35.0%		35.0%
U.S. Treasury notes		12.0%									12.0%
FDIC-insured certificates of deposit										4.2%	4.2%
Corporate notes	0.2%	0.9%	0.5%	3.6%	1.0%	0.8%					7.0%
Negotiable certificates of deposit				0.8%			1.5%	1.0%			3.3%
Supranational Bonds	1.0%										1.0%
Municipal bond			1.0%	0.3%							1.3%
	<u>1.2%</u>	<u>31.6%</u>	<u>1.5%</u>	<u>4.7%</u>	<u>1.0%</u>	<u>0.8%</u>	<u>14.8%</u>	<u>5.2%</u>	<u>35.0%</u>	<u>4.2%</u>	<u>100.0%</u>

At September 30, 2016, the Authority's investments with exposure to credit risk met the minimum credit ratings required in the Authority's investment policy.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (3) Cash Deposits and Investments (Continued)

*Custodial Credit Risk – Deposits* is the risk that, in the event of the failure of the depository financial institution, the Authority will not be able to recover the deposits or collateral securities that are in the possession of an outside party. The Authority had no custodial credit risk associated with cash deposits as all other bank deposits were entirely insured or collateralized with securities or letters of credit at 102% of the market value of principal, plus accrued interest and held by the Authority's independent agent in the Authority's name.

*Custodial Credit Risk – Investments* is the risk that in the event of the failure of the counterparty, the Authority will not be able to recover the value of its investments or collateral securities that are in the possession of the outside party. The Authority has no custodial credit risk as all Authority investments are held in the Authority's name by an independent custodial agent for the term of the agreement and investments in obligations of the United States or its agencies are held by the Federal Reserve in a custodial account.

*Other Required Disclosures* – As of and for the years ended September 30, 2016 and 2015, the Authority did not have any:

- Commitments to resell securities under yield maintenance agreements;
- Losses due to defaults by counterparties or recoveries from prior period losses; and
- Investments in any one issuer that represent 5% or more of total investments, excluding investments explicitly guaranteed by the U.S. government and its agencies and investments in mutual funds, external investment pools and other pooled investments that are excluded from this disclosure requirement.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**Notes to the Financial Statements**

**September 30, 2016 and 2015**

**(In thousands)**

**(3) Cash Deposits and Investments (Continued)**

**(d) Cash and Investment Schedule**

A schedule of cash, cash equivalents and investments as of September 30, 2016 and 2015 follows:

Description	2016			2015		
	Unrestricted	Restricted	Total	Unrestricted	Restricted	Total
Cash and cash equivalents						
Demand deposits	\$ 112,215	\$ -	\$ 112,215	\$ 71,214	\$ -	\$ 71,214
Registered money market mutual	68	125,715	125,783	10,112	152,323	162,435
Total cash and cash equivalents	112,283	125,715	237,998	81,326	152,323	233,649
Investments						
U.S. Treasury notes	16,118	26,891	43,009	41,396	13,214	54,610
Corporate notes	25,044	-	25,044	26,313	-	26,313
FDIC-insured certificates of deposit	15,197	-	15,197	25,220	-	25,220
U.S. government agency obligations	28,323	38,861	67,184	8,930	10,035	18,965
Negotiable certificates of deposit	12,012	-	12,012	11,987	-	11,987
Commercial paper	1,790	61,002	62,792	1,792	-	1,792
Supranational Bonds	3,755	-	3,755	-	-	-
Municipal bonds	4,743	-	4,743	120	-	120
Total Investments	106,982	126,754	233,736	115,758	23,249	139,007
Total cash, cash equivalents & investments	\$ 219,265	\$ 252,469	\$ 471,734	\$ 197,084	\$ 175,572	\$ 372,656

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**Notes to the Financial Statements**

**September 30, 2016 and 2015**

**(In thousands)**

**(3) Cash Deposits and Investments (Continued)**

**(e) Restricted Cash and Investment Schedule**

A schedule of restricted cash, cash equivalents and investments as of September 30, 2016 and 2015 follows:

Description	2016	2015
Restricted cash and cash equivalents (current and noncurrent)		
2016 B EIB Construction Funds	\$ 24,500	\$ -
Principal payment, 1998 revenue bonds	13,924	13,138
Interest payment, 2016A revenue bonds	10,500	-
Interest payment, 2015A,B revenue bonds	8,760	-
Interest payment, 2014C revenue bonds	8,739	8,763
Interest payment, 2014A revenue bonds	8,431	8,426
Interest payment, 2010 revenue bonds	8,398	5,511
Interest payment, 2012A,C revenue bonds	8,079	8,156
Interest payment, 2009 revenue bonds	236	4,284
Interest payment, 2013 revenue bonds	7,534	7,529
Principal payment, 2008 revenue bonds	6,604	6,435
Interest payment, 2008 revenue bonds	506	4,205
Interest payment, 1998 revenue bonds	5,587	5,981
Principal payment, 2012 revenue bonds	4,919	4,751
Interest payment, 2007 revenue bonds	-	2,840
Principal payment, 2009 revenue bonds	3,498	3,175
Extendable municipal commercial paper	2,326	-
Revenue bonds 2015B	1,833	-
Interest payment, commercial paper	637	-
Revenue bonds 2015A	233	-
Debt service reserve account, 1998 revenue bonds	211	218
Revenue bonds 2014C	124	-
Interest payment, 2014B revenue bonds	96	34
Interest payment, 2012B-1,2 revenue bonds	38	60
Revenue bonds 2014A	1	67,604
Interest payment, commercial paper	-	642
Principal payment, 2014C revenue bonds	-	570
Combined sewer overflow (CSO) federal appropriations	1	1
Total restricted cash and cash equivalents	125,715	152,323
Restricted investments (current and noncurrent)		
Debt service reserve account, 1998 revenue bonds	23,382	23,249
Revenue bonds 2015A	78,402	-
Revenue bonds 2015B	24,970	-
Total restricted investments	126,754	23,249
Total restricted cash, cash equivalents & investments	\$252,469	\$175,572

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

### (4) Capital Assets

The following tables present the activity in capital assets for the years ended September 30, 2016 and 2015:

	Balance 9/30/2015	Additions	Disposals	Transfers	Balance 9/30/2016
<b>Capital Assets</b>					
Wastewater treatment plant	\$ 2,367,163	\$ -	\$ -	\$ 16,013	\$ 2,383,176
Wastewater collection facilities	828,130	-	-	14,965	843,095
Water distribution system	1,054,046	-	-	41,170	1,095,216
Purchased capacity	341,974	7,236	-	-	349,210
Capital equipment	203,573	(35)	(96)	17,142	220,584
Total capital assets in service	<u>4,794,886</u>	<u>7,201</u>	<u>(96)</u>	<u>89,290</u>	<u>4,891,281</u>
Less accumulated depreciation:					
Wastewater treatment plant	(588,392)	(40,880)	-	-	(629,272)
Wastewater collection facilities	(253,807)	(13,465)	-	-	(267,272)
Water distribution system	(256,622)	(17,807)	-	-	(274,429)
Purchased capacity	(82,540)	(5,820)	-	-	(88,360)
Capital equipment	(169,855)	(11,540)	96	-	(181,299)
Total accumulated depreciation	<u>(1,351,216)</u>	<u>(89,512)</u>	<u>96</u>	<u>-</u>	<u>(1,440,632)</u>
Net capital assets in service	3,443,670	(82,311)	-	89,290	3,450,649
Construction-in-progress	2,033,657	600,331	-	(89,290)	2,544,698
Net capital assets	<u>\$ 5,477,327</u>	<u>\$ 518,020</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 5,995,347</u>

	Balance 9/30/2014	Additions	Disposals	Transfers	Balance 9/30/2015
<b>Capital Assets</b>					
Wastewater treatment plant	\$ 2,057,116	\$ -	\$ -	\$ 310,047	\$ 2,367,163
Wastewater collection facilities	758,603	-	-	69,527	828,130
Water distribution system	981,047	-	-	72,999	1,054,046
Purchased capacity	334,174	7,800	-	-	341,974
Capital equipment	191,409	(12)	(651)	12,827	203,573
Total capital assets in service	<u>4,322,349</u>	<u>7,788</u>	<u>(651)</u>	<u>465,400</u>	<u>4,794,886</u>
Less accumulated depreciation:					
Wastewater treatment plant	(550,483)	(37,909)	-	-	(588,392)
Wastewater collection facilities	(240,961)	(12,846)	-	-	(253,807)
Water distribution system	(239,989)	(16,633)	-	-	(256,622)
Purchased capacity	(76,844)	(5,696)	-	-	(82,540)
Capital equipment	(159,732)	(10,774)	651	-	(169,855)
Total accumulated depreciation	<u>(1,268,009)</u>	<u>(83,858)</u>	<u>651</u>	<u>-</u>	<u>(1,351,216)</u>
Net capital assets in service	3,054,340	(76,070)	-	465,400	3,443,670
Construction-in-progress	1,879,678	619,379	-	(465,400)	2,033,657
Net capital assets	<u>\$ 4,934,018</u>	<u>\$ 543,309</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 5,477,327</u>

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

### (4) Capital Assets (Continued)

For the years ended September 30, 2016 and 2015, total interest expense incurred was \$65,183 and \$57,341, and total capitalized interest was \$62,800 and \$52,028, respectively.

The following tables present the activity in purchased capacity for the years ended September 30, 2016 and 2015:

	Balance 9/30/2015	Additions	Balance 9/30/2016
Purchased capacity			
Washington Aqueduct	\$ 309,784	\$ 7,236	\$ 317,020
Jennings Randolph Reservoir	19,863	-	19,863
Little Seneca Lake	12,327	-	12,327
Total in service	<u>341,974</u>	<u>7,236</u>	<u>349,210</u>
Less accumulated depreciation:			
Washington Aqueduct	(67,239)	(5,223)	(72,462)
Jennings Randolph Reservoir	(9,037)	(393)	(9,430)
Little Seneca Lake	(6,264)	(204)	(6,468)
Total accumulated depreciation	<u>(82,540)</u>	<u>(5,820)</u>	<u>(88,360)</u>
Purchased capacity, net	<u>\$ 259,434</u>	<u>\$ 1,416</u>	<u>\$ 260,850</u>
	Balance 9/30/2014	Additions	Balance 9/30/2015
Purchased capacity			
Washington Aqueduct	\$ 301,984	\$ 7,800	\$ 309,784
Jennings Randolph Reservoir	19,863	-	19,863
Little Seneca Lake	12,327	-	12,327
Total in service	<u>334,174</u>	<u>7,800</u>	<u>341,974</u>
Less accumulated depreciation:			
Washington Aqueduct	(62,141)	(5,098)	(67,239)
Jennings Randolph Reservoir	(8,644)	(393)	(9,037)
Little Seneca Lake	(6,059)	(205)	(6,264)
Total accumulated depreciation	<u>(76,844)</u>	<u>(5,696)</u>	<u>(82,540)</u>
Purchased capacity, net	<u>\$ 257,330</u>	<u>\$ 2,104</u>	<u>\$ 259,434</u>

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

### (5) Capital Contributions

Capital contributions consist of the following for the years ended September 30, 2016 and 2015, respectively:

<u>Description</u>	<u>2016</u>	<u>2015</u>
Federal grants and appropriations	\$ 29,470	\$ 47,943
Contributions from District government	2,961	20,022
Total	<u>\$ 32,431</u>	<u>\$ 67,965</u>

Capital contributions consist principally of Federal grants and appropriations and certain capital costs incurred by the Authority in fiscal year 2016 and 2015 to be reimbursed by the District government pursuant to the Memorandum of Understanding between the Authority and the District discussed in Note 13(c).

### (6) Due from Federal Government

The amount due from the Federal government consists of the following at September 30, 2016 and 2015, respectively:

<u>Description</u>	<u>2016</u>	<u>2015</u>
Washington Aqueduct advance	\$ 24,150	\$ 24,233
Federal grants receivable	4,223	8,245
Total	<u>\$ 28,373</u>	<u>\$ 32,478</u>

The Washington Aqueduct advance consists of unexpended capital advances and an operating escrow of \$4,675 required under the Water Sales Agreement. Federal grants receivable represent amounts due from the Environmental Protection Agency related to allowable construction costs incurred but not billed and/or reimbursed as of the fiscal year end.

### (7) Customer Receivables

The following is a summary of customer receivables, net as of September 30, 2016 and 2015:

<u>Description</u>	<u>2016</u>	<u>2015</u>
Billed customer receivables	\$ 60,616	\$ 55,975
Unbilled customer receivables	21,441	19,042
Total customer receivables	82,057	75,017
Less: Allowance for doubtful accounts	(15,042)	(12,364)
Customer receivables, net	<u>\$ 67,015</u>	<u>\$ 62,653</u>

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**Notes to the Financial Statements**

**September 30, 2016 and 2015**

**(In thousands)**

**(8) Due from Other Jurisdictions**

The amount due from other jurisdictions under the 2012 IMA consists of the following at September 30, 2016 and 2015:

Description	2016	2015
Current:		
Washington Suburban Sanitary Commission	\$ 10,872	\$ 31,971
Fairfax	2,472	8,368
Loudoun County Sanitation Authority	937	3,121
Northern Virginia	92	90
Potomac Interceptor	587	849
Total current	14,960	44,399
Noncurrent:		
Washington Suburban Sanitary Commission	11,703	12,149
Northern Virginia	2,989	3,082
Fairfax	2,333	2,601
Loudoun County Sanitation Authority	1,031	1,153
Total noncurrent	18,056	18,985
Total due from other jurisdictions	\$ 33,016	\$ 63,384

**(9) Compensated Absences**

The following table reflects the activity associated with accrued compensated absences for the years ended September 30, 2016 and 2015, respectively:

Description	2016			2015		
	Vacation	Sick	Total	Vacation	Sick	Total
Beginning of year	\$ 8,253	\$ 7,805	\$ 16,058	\$ 7,683	\$ 6,897	\$ 14,580
Increased (incurred)	2,112	2,201	4,313	1,963	1,688	3,651
Decreases	(2,050)	(933)	(2,983)	(1,393)	(780)	(2,173)
End of year	8,315	9,073	17,388	8,253	7,805	16,058
Less: current portion	1,443	592	2,035	1,105	359	1,464
Noncurrent portion	\$ 6,872	\$ 8,481	\$ 15,353	\$ 7,148	\$ 7,446	\$ 14,594

The current portion of compensated absences is included in compensation payable in the accompanying statements of net position.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

### (10) Short-Term Debt—Commercial paper notes payable and Extendable Municipal Commercial Paper

The Authority's commercial paper notes payable are comprised of the following as of September 30, 2016 and 2015, respectively:

Description	9/30/2015	9/30/2016
Commercial Paper	\$ 91,200	\$ 29,200
Extendable Municipal Commercial Paper	-	50,000
	<u>\$ 91,200</u>	<u>\$ 79,200</u>

#### (a) Commercial Paper

A schedule of Commercial Paper activity for the years ended September 30, 2016 and 2015 is shown below:

Description	Balance	2016		Balance
	9/30/2015	Maturities	Re-Issuance	9/30/2016
Series C, interest from 0.24% to 0.60%, maturities ranged from 34 to 95 days	\$ 29,200	\$(262,800)	\$ 262,800	\$ 29,200
Series B, interest from 0.03% to 0.07%, maturities ranged from 17 to 71 days	62,000	(87,000)	25,000	-
	<u>\$ 91,200</u>	<u>\$(349,800)</u>	<u>\$ 287,800</u>	<u>\$ 29,200</u>

Description	Balance	2015		Balance
	9/30/2014	Maturities	Re-Issuance	9/30/2015
Series C, interest from 0.15% to 0.24%, maturities ranged from 1 to 97 days	\$ 29,200	\$(204,400)	\$ 204,400	\$ 29,200
Series B, interest from 0.03% to 0.12%, maturities ranged from 36 to 89 days	12,000	(78,000)	128,000	62,000
	<u>\$ 41,200</u>	<u>\$(282,400)</u>	<u>\$ 332,400</u>	<u>\$ 91,200</u>

The Authority has established a commercial paper ("CP") program to provide interim financing for the Authority's capital improvement program. Two series of notes have been issued under the commercial paper program: the tax-exempt Series B CP Notes in an aggregate principal amount not to exceed \$100,000, and the taxable Series C CP Notes in an aggregate principal amount not to exceed \$50,000, (collectively, the "Commercial Paper Notes"), each as subordinate debt to the senior debt discussed in Note 11. To provide liquidity and credit support for the Commercial Paper Notes, the Authority obtained irrevocable, direct-pay letters of credit (the "Letters of Credit") issued by Landesbank Hessen-Thüringen Girozentrale, New York Branch (the "Bank") which currently expire on May 15, 2020.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**Notes to the Financial Statements**

**September 30, 2016 and 2015**

**(In thousands)**

**(10) Short-Term Debt—Commercial Paper and Extendable Municipal Commercial Paper (Continued)**

In connection with the Bank's issuance of the Letters of Credit, the Authority and the Bank entered into a Reimbursement Agreement for each series of CP Notes, each dated as of May 1, 2015, each as amended (collectively, the "Reimbursement Agreements") that obligates the Authority to pay Bank Obligations and Reimbursement Obligations (both as defined in the Eleventh Supplemental Indenture relating to the Commercial Paper Notes) and Fee Obligations (as defined in each Reimbursement Agreement) to the Bank. The Bank Obligations, the Reimbursement Obligations and Fee Obligations are Subordinate Debt under the Indenture.

**(b) Extendable Municipal Commercial Paper**

A schedule of Extendable Municipal Commercial Paper activity for the year ended September 30, 2016 is shown below:

Description	Balance 9/30/2015	2016 Maturities	Re-Issuance	Balance 9/30/2016
EMCP Series A, interest from 0.06% to 0.55%, maturities ranged from 27 to 90 days	\$ -	\$ (275,000)	\$ 325,000	\$ 50,000

The Authority has authorized a \$100,000 Extendable Municipal Commercial Paper (EMCP) Program. The program consists of one series - A, in the amount of \$100,000. This program will provide interim financing for a portion of the Authority's Capital Improvement Program. Under this program the notes are issued backed by the liquidity and credit rating of the Authority. Each Series A EMCP Note will mature on its respective "Original Maturity Date", which may range from one to 90 days from the date of issuance, unless its maturity is extended on the "Original Maturity Date" to the "Extended Maturity Date", which will be the date that is 270 days after the date of issuance of the Series A EMCP Note. The notes are payable from and secured by a subordinate lien on the Authority's net revenues, as further described in the Authority's master trust indenture as supplemented. On December 1, 2015, the Authority issued the Series A EMCP Notes in the amount of \$50,000. The proceeds were used to (1) redeem \$47,310 of currently outstanding Commercial Paper (2) pay \$1 of accrued interest on the Commercial Paper as well as the interest associated with the Authority's public utility subordinate lien multimodal revenues bonds, 2012 series B-2 (3) pay \$355 associated cost of issuance of the Series A EMCP Note and (4) the remaining \$2,334 were contributed to the Construction Account.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

### (11) Long-Term Debt

A schedule of long-term debt activity for the year ended September 30, 2016 is shown below:

Description	Balance 9/30/2015	Increases	Decreases	Balance 9/30/2016	Due Within One Year
2016 Public Utility Revenue Bonds:					
Series A interest at 2.0 % to 5.0%, maturing in 2039	\$ -	\$ 389,110	\$ -	\$ 389,110	\$ -
Series B interest at 3.4%, maturing in 2047	-	25,000	-	25,000	-
2015 Public Utility Revenue Bonds:					
Series A interest at 2.0 % to 5.0%, maturing in 2045	-	100,000	-	100,000	-
Series B interest at 5.0 % to 5.25%, maturing in 2044	-	250,000	-	250,000	-
2014 Public Utility Revenue Bonds:					
Series A interest at 4.81%, maturing in 2114	350,000	-	-	350,000	-
Series B-1 interest at 3.25%, maturing in 2050	50,000	-	-	50,000	-
Series B-2 interest at 3.25%, maturing in 2050	50,000	-	-	50,000	-
Series C interest at 3.0 % to 5.0%, maturing in 2044	377,700	-	(590)	377,110	-
2013 Public Utility Revenue Bonds:					
interest at 4.75% to 5.0%, maturing in 2048	300,000	-	-	300,000	-
2012 Public Utility Revenue Bonds:					
Series A interest at 2.0 % to 5.0%, maturing in 2037	168,405	-	(4,750)	163,655	4,915
Series B-2 interest at 2.26%, maturing in 2040	47,310	-	(47,310)	-	-
Series C interest at 4.0% to 5.0%, maturing in 2033	163,215	-	-	163,215	-
2010 Series A Public Utility Revenue Bonds:					
interest at 4.1% to 5.5%, maturing in 2044	300,000	-	-	300,000	-
2009 Series A Public Utility Revenue Bonds:					
interest at 3.0% to 6.0%, maturing in 2019	159,520	-	(147,985)	11,535	3,495
2008 Series A Public Utility Revenue Bonds:					
interest at 4.0% to 5.0%, maturing in 2019	168,190	-	(147,990)	20,200	6,600
2007 Series A Public Utility Revenue Bonds:					
interest at 4.75% to 5.50%, maturing in 2041	115,580	-	(115,580)	-	-
1998 Public Utility Revenue Bonds:					
interest ranges from 5.5% to 6.0%, maturing in 2028	183,660	-	(13,135)	170,525	13,920
Notes payable to the Federal Government for Jennings Randolph Reservoir (Bloomington Dam):					
interest at 3.25%, maturing in 2041	13,217	-	(376)	12,841	387
Subtotal	2,446,797	764,110	(477,716)	2,733,191	29,317
Unamortized bond premiums	104,060	111,329	(16,712)	198,677	-
Unamortized bond discounts	(2,351)	-	129	(2,222)	-
Total bonds and notes	\$2,548,506	\$ 875,439	\$(494,299)	\$2,929,646	\$ 29,317

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

### (11) Long-Term Debt (Continued)

A schedule of long-term debt activity for the year ended September 30, 2015 is shown below:

Description	Balance 9/30/2014	Increases	Decreases	Balance 9/30/2015	Due Within One Year
2014 Public Utility Revenue Bonds:					
Series A interest at 4.81%, maturing in 2114	\$ 350,000	\$ -	\$ -	\$ 350,000	\$ -
Series B-1 interest at 3.25%, maturing in 2050	50,000	-	-	50,000	-
Series B-2 interest at 3.25%, maturing in 2050	50,000	-	-	50,000	-
Series C interest at 3.0 % to 5.0%, maturing in 2044	-	377,700	-	377,700	590
2013 Public Utility Revenue Bonds:					
interest at 4.75% to 5.0%, maturing in 2048	300,000	-	-	300,000	-
2012 Public Utility Revenue Bonds:					
Series A interest at 2.0 % to 5.0%, maturing in 2037	172,990	-	(4,585)	168,405	4,750
Series B-1 interest at 2.26%, maturing in 2044	52,690	-	(52,690)	-	-
Series B-2 interest at 2.26%, maturing in 2040	47,310	-	-	47,310	-
Series C interest at 4.0% to 5.0%, maturing in 2033	163,215	-	-	163,215	-
2010 Series A Public Utility Revenue Bonds:					
interest at 4.1% to 5.5%, maturing in 2044	300,000	-	-	300,000	-
2009 Series A Public Utility Revenue Bonds:					
interest at 3.0% to 6.0%, maturing in 2039	291,145	-	(131,625)	159,520	3,175
2008 Series A Public Utility Revenue Bonds:					
interest at 4.0% to 5.0%, maturing in 2034	268,095	-	(99,905)	168,190	6,435
2007 Series A Public Utility Revenue Bonds:					
interest at 4.75% to 5.50%, maturing in 2041	218,715	-	(103,135)	115,580	-
1998 Public Utility Revenue Bonds:					
interest ranges from 5.5% to 6.0%, maturing in 2028	196,050	-	(12,390)	183,660	13,135
Notes payable to the Federal Government for Jennings Randolph Reservoir (Bloomington Dam):					
interest at 3.25%, maturing in 2041	13,580	-	(363)	13,217	375
Subtotal	2,473,790	377,700	(404,693)	2,446,797	28,460
Unamortized bond premiums	76,098	51,085	(23,123)	104,060	-
Unamortized bond discounts	(2,480)	-	129	(2,351)	-
Total bonds and notes	\$2,547,408	\$428,785	\$(427,687)	\$2,548,506	\$ 28,460

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (11) Long-Term Debt (Continued)

#### (a) *Senior Debt*

The 2014 Series A, 2009 Series A and 1998 Series public utility revenue bonds are considered senior debt under the related Master Indenture of Trust (“Master Indenture”). Payment of the principal and interest on Authority’s senior debt is secured by a pledge of Authority’s gross revenues (excluding any capital contributions or grants) after provisions for payment of operating expenses.

In July 2014, the Authority issued \$350,000 of senior lien public utility revenue bonds 2014 Series A. The 2014 Series A bonds are federally taxable green bonds with a fixed rate of 4.81% and a 100 year final maturity in 2114. The proceeds of the issuance will be used to help finance the construction of the Authority’s DC Clean Rivers Project. Net proceeds from the bond issuance totaled approximately \$346,000 including \$4,000 of underwriter’s discount and cost of issuance.

In February 2009, the Authority issued senior lien public utility revenue bonds 2009 Series A with a face value of \$300,000, consisting of \$38,355 in Serial Bonds and \$261,645 in Term Bonds. The Serial Bonds have maturity dates and interest rates ranging from 2010-2030 and 3.0% to 5.4%, respectively. The Term Bonds have maturity dates and interest rates ranging from 2024-2039 and 4.8% to 6.0%, respectively. Debt proceeds were used to repay \$14,800 of the taxable Series A Commercial Paper Notes and \$50,000 of the tax exempt Series B Commercial Paper Notes with the remainder used to finance the ongoing capital improvement program. During fiscal years 2015 and 2016, the Authority advance refunded \$128,835 and \$144,810, of the 2009 Series A bonds respectively. Details of the advance refunding are discussed below. The remaining undefeased 2009 Series A bonds outstanding as of September 30, 2016 will mature in fiscal years 2017 through 2019

In April 1998, the Authority issued \$266,120 of senior lien public utility revenue bonds 1998 Series. Gross proceeds from the Series 1998 Series bonds totaled \$285,200, including \$18,800 of the original issue premium. Approximately \$77,200 was used to fund various capital projects; \$181,000 was used to repay the outstanding balances of a revolving line of credit and certain notes payable to the Federal government and to advance-refund approximately \$152,200 of District general obligation bonds. The refunded bonds have been fully extinguished. The remainder of the gross proceeds, approximately \$27,000, was used to fund the debt service reserve fund and to pay the cost of issuance. The payment of principal and interest on the Series 1998 bonds is insured by Financial Security Assurance, Inc.

#### (b) *Subordinate Debt*

Payments of the Authority’s subordinate debt are made after payments of senior debt and after certain reserves have been funded (see “Bond Covenants” below).

In September 2016 the Authority issued \$25,000 of tax-exempt public utility subordinate lien revenue bonds, 2016 Series B (Environmental Impact Bonds) (the “2016 Series B Bonds”). The 2016 Series B Bonds are multimodal variable rate bonds, initially issued bearing a 3.43% fixed rate through the mandatory tender date, April 1, 2021. The net proceeds (after payment of \$472 of issuance expenses) of \$24,528 of the 2016 Series B Bonds will be used for construction of green infrastructure (GI) in Rock Creek Project A (RC-A). The GI practices are designed to mimic natural processes to absorb and slow surges of stormwater during periods of heavy rainfall, reducing the incidence and volume of combined sewer overflows (CSOs) that pollute the District’s waterways. The 2016 Series B Bonds are designated

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (11) Long-Term Debt (Continued)

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 2016 Series B Bonds of \$3,300 in the event of a runoff reduction greater than 41.3%, and for the possibility of a Risk Share Payment by the Original Purchasers to the Authority of \$3,300 in the event of a runoff reduction less than 18.6%. Runoff reduction means the percentage reduction of storm water runoff in RC-A per impervious acre treated to manage the volume of runoff produced by 1.2 inches of rain as compared to the existing conditions runoff in RC-A as defined in the Private Placement Agreement between the Authority and Original Purchasers. The potential obligation of the Authority to pay the Outcome Payment is an unsecured obligation. No provision has been included in these financial statements for the potential obligation related to the Outcome Payment due to the uncertainties surrounding the effectiveness of GI in RC-A, which will be independently assessed prior to the mandatory tender date.

In February 2016, the Authority issued subordinate lien revenue refunding bonds 2016 Series A for \$389,110. The proceeds from these bonds were used to advance refund \$67,295 of the remaining portion of subordinated lien revenue bonds 2007 Series A, \$141,555 of subordinate lien revenue bonds 2008 Series A, \$144,810 of senior lien revenue bonds 2009 Series A and current refund the remaining portion of \$48,285 of subordinated lien revenue bonds 2007 Series A. The proceeds from 2016 Series A were used to purchase securities that were placed in an irrevocable trust with an escrow agent to provide for all future debt service payments on the refunded 2007 Series A, 2008 Series A and 2009 Series A bonds. As a result, the bonds are considered to be defeased and the liability for these bonds has been removed from the financial statements. The interest rates on the refunded bonds ranges from 3.0% to 6.0%. The cash flow required to make principal and interest payments on the refunding bonds is approximately \$78,672 less than the debt service requirements of the refunded bonds. The economic gain (the difference between the present values of the debt service payments on the old and new debt) obtained from the advance refunding is \$56,831.

In October 2015, the Authority issued subordinate lien revenue bonds with a face value of \$350,000. The bonds were structured in two Series: 2015 Series A (Green Bonds) consisted of \$100,000 with interest rates ranging from 2.0% to 5.0% maturing in 2045; 2015 Series B consisting of \$250,000 with interest rates ranging from 5.0% to 5.25% maturing in 2044. Gross proceeds from the two series of 2015 Bonds totaled \$406,587, including \$56,587 of the original issue premium. Approximately \$115,869 of 2015 series A (Green Bonds) was used to fund a portion of the costs of the Authority's DC Clean Rivers Project; \$226,584 of the 2015 series B was used to fund various capital improvements to the system; \$62,000 of 2015 series B was used to pay principal of and interest on all or a portion of the Authority's outstanding commercial paper notes, Series B (the "Series 2015 B CP Notes), and \$2,134 was used to pay the underwriter's discount and cost of issuance.

In November 2014, the Authority issued subordinate lien revenue refunding bonds 2014 Series C for \$377,700. The proceeds from these bonds were used to advance refund \$103,135 of subordinated lien revenue bonds 2007 Series A, \$93,560 of subordinate lien revenue bonds 2008 Series A, and \$128,835 of senior lien revenue bonds 2009 Series A; and to current refund \$52,690 of subordinate lien multimodal revenue bonds 2012 Subseries B-1.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (11) Long-Term Debt (Continued)

The proceeds from 2014 Series C were used to purchase securities that were placed in an irrevocable trust with an escrow agent to provide for all future debt service payments on the refunded 2007 Series A, 2008 Series A and 2009 Series A bonds. As a result, the bonds are considered to be defeased and the liability for these bonds has been removed from the financial statements. The interest rates on the refunded bonds ranges from 2.26% to 6.0%. The cash flow required to make principal and interest payments on the refunding bonds is approximately \$50,356 less than the debt service requirements of the refunded bonds. The economic gain (the difference between the present values of the debt service payments on the old and new debt) obtained from the advance refunding is \$35,266.

In July 2014, the Authority issued \$100,000 of tax-exempt 2014 Series B variable rate multimodal subordinate lien revenue bonds, maturing in 2050 to fund the Authority's capital improvement program. Net proceeds from the bond issuance totaled approximately \$99,500 including \$500 of underwriter's discount and cost of issuance. Initially, the 2014 Series B bonds will bear interest in a weekly rate period but may be converted to daily, index, short term, long term or fixed rate. Funds for the purchase of tendered bonds that are not remarketed will be provided initially by TD Bank, N.A. for a period of three years pursuant to a Standby Bond Purchase Agreement dated July 23, 2014.

In July 2013, the Authority issued \$300,000 of subordinate lien public utility revenue bonds with interest rates ranging from 4.75% to 5.0%, maturing in 2048 to fund the Authority's capital improvement program. Gross proceeds from the 2013 Series A bonds totaled \$298,921, including \$1,014 of original issue premium and \$2,093 of underwriter's discount and cost of issuance.

In March 2012, the Authority issued subordinate lien revenue bonds with a face value of \$440,645. The bonds were structured in three Series: 2012 Series A consisted of \$177,430 with interest rates ranging from 2.0% to 5.0% maturing in 2037; 2012 Series B consisting of \$100,000 with interest rate at 2.26% maturing in 2044; and 2012 Series C consisting of \$163,215 with interest rates ranging from 4.0% to 5.0% maturing in 2033. Gross proceeds from the three series of 2012 Bonds totaled \$493,934, including \$53,289 of the original issue premium. Approximately \$302,413 was used to fund various capital projects; \$188,688 was used to advance-refund series 2003 Series bonds, and \$2,833 was used to pay the underwriter's discount and cost of issuance. During fiscal years 2016 and 2015, the Authority current refunded \$47,310 and advance refunded \$52,690 of the series 2012 Series B-2 and 2012 Series B-1 bonds respectively. Details of the current and advance refunding are discussed above.

The Authority completed its advance-refunding of the 2003 Series bonds by using \$188,688 of bond proceeds from 2012 Series C to purchase securities that were placed in an irrevocable trust with an escrow agent to provide for all future debt service payments on the bonds. As a result, the bonds are considered to be defeased and the liability for those bonds has been removed from the financial statements. This refunding decreases total debt service payments by approximately \$25,478 resulting in an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$17,843. The refunded bonds have been fully extinguished.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (11) Long-Term Debt (Continued)

In October 2010, the Authority issued the 2010 Series A public utility subordinate lien revenue bonds, 2010 Series A under the Federal government's Build America Bonds program. Under this program, the Federal government provides the Authority a federal subsidy in the amount of 35% of the interest paid on the bonds which reduces the Authority's effective interest costs to approximately 3.6%. The \$300,000 par amount consisted of \$18,550 in serial bonds maturing in 2033 and gross interest rates ranging from 4.1% to 4.6%, \$30,950 in term bonds maturing in 2028 and a gross interest rate of 5.4%, and \$250,500 in index term bonds maturing in 2044 and a gross interest rate of 5.5%. Approximately \$214,640 was issued to fund costs of certain capital improvements, including \$2,420 for the cost of issuance and underwriter's discount. In addition, approximately \$75,000 was issued to fund the Authority's Digester Project and \$10,360 for capitalized interest. The interest subsidy received by the Authority for the fiscal years ended September 30, 2016 and 2015 amounted to \$7,969 and \$2,647, respectively. In fiscal years 2016 and 2015, the Authority received \$597 and \$208 less than expected due to budget sequester impacts experienced by the Federal government.

In April 2008, the Authority refunded the 2004 and 2007 Series B subordinate public utility revenue bonds for \$295,000 and \$59,000, respectively. Simultaneously, the Authority issued subordinate lien public utility revenue bonds 2008 Series A with a face value of \$290,375 which are due in 2034. The interest rate on these securities is fixed and will have an effective average rate of 4.7% over the life of the bonds. There was \$11,678 of original issue premium and approximately \$5,888 for the cost of issuance, bond insurance and underwriter's discount costs associated with this issuance. The scheduled payments of principal and interest on the 2008 Series A bonds are guaranteed by a municipal bond insurance policy issued by the Assured Guaranty Program. During fiscal years 2015 and 2016, the Authority advance refunded \$93,560 and \$141,555 of the series 2008 Series A bonds respectively. Details of the advance refunding are discussed above. The remaining undefeased 2008 Series A bonds outstanding as of September 30, 2016 will mature in fiscal years 2017 through 2019.

In June 2007, the Authority issued \$218,715 of tax-exempt subordinate lien public utility revenue bonds 2007 Series A and \$59,000 of taxable subordinate lien public utility revenue bonds 2007 Series B. Gross proceeds from the 2007 Series A bonds totaled \$234,923, including \$15,661 of original issue premium. Approximately \$30,000 was used to repay outstanding commercial paper, and \$2,824 was used to pay the underwriter's discount, insurance and the cost of issuance. The scheduled payments of principal and interest on 2007 Series A bonds are guaranteed by a municipal bond insurance policy issued by the Financial Guaranty Insurance Company ("FGIC"). Gross proceeds from the 2007 Series B bonds totaled \$59,000. Proceeds from the 2007 Series B bonds were used entirely to fund the Authority's share of capital improvements to the Washington Aqueduct. The scheduled payments of principal and interest on 2007 Series B bonds are guaranteed by a municipal bond insurance policy issued by CIFG Assurance North America, Inc. During fiscal year 2015, the Authority advance refunded \$103,135 of the 2007 Series A bonds. During fiscal year 2016, the Authority advance refunded \$67,295 of the 2007 Series A bonds and current refunded \$48,285 of the remaining portion of 2007 series A bonds. Details of the advance refunding and current refunding are discussed above.

Notes payable to the Federal government for the Jennings Randolph Reservoir are considered subordinate debt under the Master Indenture and contain no pledge of property, sinking fund provisions, or restrictive covenants. The proceeds of the notes were used to make improvements to the Jennings Randolph Reservoir for back-up and peak-day water supply.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (11) Long-Term Debt (Continued)

#### (c) *Bond Covenants*

The Master Indenture sets forth the establishment of accounts, the application of revenues, and certain other covenants to ensure proper operation and maintenance of the water and wastewater system and payment of debt service. Management believes the Authority was in compliance with all bond covenants as of and for the years ended September 30, 2016 and 2015. The primary requirements of the Master Indenture are summarized below:

*Rate Covenant* — The Authority has covenanted to establish and maintain rates and charges to produce revenues sufficient to pay operating expenses and annual debt service on senior and subordinate debt, to fund certain required reserves, to fund any payment in lieu of taxes, and to produce net revenues sufficient at least equal to the sum of: (1) 120% of annual debt service on senior debt and (2) 100% of annual debt service on subordinate debt. Net revenues are defined generally as all Authority revenues (excluding capital contributions from wholesale customers, Federal grants, or any proceeds derived from the sale of capital assets), less operating and maintenance expenses (excluding any payment in lieu of taxes, depreciation and amortization charges and certain extraordinary, nonrecurring expenses).

*Debt Service Reserve Fund* — The Authority has established debt service reserve accounts for certain series of bonds, which are only to be used to pay debt service in the event of insufficient funds. The 1998 Series bonds debt service reserve account balance as of September 30, 2016 and 2015 was \$23,594 and \$23,467, respectively, and is required to be maintained at 125% of current and future average annual 1998 Series debt service.

*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. 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. The Board has adopted a policy of funding operating reserves to a level in excess of that required by the Master Indenture.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**Notes to the Financial Statements**

**September 30, 2016 and 2015**

**(In thousands)**

**(11) Long-Term Debt (Continued)**

**(d) Debt Service to Maturity**

The future debt-service obligations at September 30, 2016 are as follows:

Fiscal year	Principal	Interest	Total
2017	\$ 29,317	\$ 126,764	\$ 156,081
2018	30,840	123,888	154,728
2019	32,993	122,283	155,276
2020	36,502	120,603	157,105
2021	42,005	118,741	160,746
2022 - 2026	270,896	558,653	829,549
2027 - 2031	342,917	486,171	829,088
2032 - 2036	433,888	396,370	830,258
2037 - 2041	496,838	287,927	784,765
2042 - 2046	529,955	164,094	694,049
2047 - 2051	137,040	91,933	228,973
2052 - 2056	—	84,245	84,245
2057 - 2061	—	84,245	84,245
2062 - 2066	—	84,245	84,245
2067 - 2071	—	84,245	84,245
2072 - 2076	—	84,245	84,245
2077 - 2081	—	84,245	84,245
2082 - 2086	—	84,245	84,245
2087 - 2091	—	84,245	84,245
2092 - 2096	—	84,245	84,245
2097 - 2101	—	84,245	84,245
2102 - 2106	28,069	82,894	110,963
2107 - 2111	161,963	54,831	216,794
2112 - 2116	159,968	12,004	171,972
	\$ 2,733,191	\$ 3,589,606	\$ 6,322,797

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

### (11) Long-Term Debt (Continued)

#### (e) *Outstanding Debt Defeased*

The Authority defeased certain revenue bonds in current and prior years by placing cash or the proceeds of new revenue bonds in irrevocable trusts to provide for all future debt service payments on the defeased bonds. Accordingly, the Trust account assets and the liability for the defeased bonds are not reflected in the Authority's financial statements. At September 30, 2016, the following outstanding revenue bonds are considered defeased.

Bond issue	Principal Outstanding 9/30/2016
2009 Series A Public Utility Revenue Bonds: interest at 3.0% to 6.0%, maturing in 2039	\$ 273,645
2008 Series A Public Utility Revenue Bonds: interest at 4.0% to 5.0%, maturing in 2034	235,115
2007 Series A Public Utility Revenue Bonds: interest at 4.75% to 5.50%, maturing in 2041	170,430
Total Principal Outstanding	<u>\$ 679,190</u>

### (12) Commitments and Contingencies – Other Liabilities

A schedule of other liabilities as of September 30, 2016 and 2015 is shown below:

Description	2016	2015
Risk management contingency	\$ 11,818	\$ 11,615
Rolling owner controlled insurance program	6,518	5,702
Litigation contingency	2,998	3,024
Contractual obligations	825	825
Retirement health savings plan	2,536	1,955
Total other liabilities	<u>24,695</u>	<u>23,121</u>
Less: current portion	11,926	9,230
Noncurrent portion	<u>\$ 12,769</u>	<u>\$ 13,891</u>

The current portion of other liabilities represents management's estimate of the amounts that will be paid in next fiscal year.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (12) Commitments and Contingencies – Other Liabilities (Continued)

#### (a) *Risk Management*

The Authority is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. Effective April 7, 1998, the Authority purchased certain commercial insurance coverage. Prior to that date, the Authority was either self-insured or covered under District self-insurance programs.

For each of the three most recent years, settlement of claims has not exceeded insurance coverage. Additionally, there has not been a significant reduction in insurance coverage from coverage in the prior year.

The Authority has purchased \$1,000,000 property coverage (Property Policy) to protect its owned or leased facilities, buildings and contents. Except for catastrophic on-site protection provided on the Property Policy, the Authority self-insures its fleet of vehicles. The deductible for each claim for buildings and contents is \$1,000. Off-site watercraft and specified equipment are insured under an Inland Marine Policy. Deductibles range from \$10 to \$25 on this policy for each occurrence.

The Authority has purchased liability insurance coverage to protect it from claims alleging damages and injuries caused by automobile accidents, damaged utilities, construction, and other activities. Limits of \$100,000 have been secured in excess of a deductible of \$1,000 for each occurrence. Public Officials' liability insurance has been secured with limits of \$20,000 in excess of a deductible of \$250 to \$500 per claim.

The Authority self-insures the first \$1,000 of workers' compensation claims costs. In order to mitigate the potential self-insured costs of medical expenses, rehabilitation and lost wages, the Authority purchased an Excess Workers' Compensation Policy with unlimited coverage. The Authority contracts with a third-party administrator to support the workers' compensation claims management program.

Liabilities are recognized when it is probable that losses have occurred and the amounts of the losses can be reasonably estimated. Liabilities include an amount for claims that have been incurred but not reported to date and include a provision for allocated and unallocated claim adjustment expenses.

Because actual claims liabilities depend on such complex factors as inflation, changes in governing laws and standards, and court awards, the process used in computing claims liabilities is reevaluated periodically to take into consideration the history, frequency and severity of recent claims and other economic and social factors.

These liabilities are computed using a combination of actual claims experience and statistically estimated amounts. The Authority has not discounted these estimated liabilities to present value.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**Notes to the Financial Statements**

**September 30, 2016 and 2015**

**(In thousands)**

**(12) Commitments and Contingencies – Other Liabilities (Continued)**

Changes in the Authority’s estimated risk management liabilities related to workers’ compensation and general liability claims during the years ended September 30, 2016, 2015 and 2014 were as follows:

Description	2016	2015	2014
Balance, beginning of year	\$ 11,615	\$ 11,645	\$ 11,782
Current year claims and changes in estimates	2,935	2,796	2,842
Claim payments	<u>(2,732)</u>	<u>(2,826)</u>	<u>(2,979)</u>
Balance, end of year	<u>\$ 11,818</u>	<u>\$ 11,615</u>	<u>\$ 11,645</u>

**(b) Rolling Owner Controlled Insurance Program**

The Authority procures insurance for the majority of its construction contractors through the Authority’s Rolling Owner Controlled Insurance Program (ROCIP). Construction contractors who do not participate in the ROCIP are required to procure insurance on their own. Coverage for participating construction contractors includes general liability, umbrella and workers’ compensation insurance. Both general liability and workers’ compensation have a \$500 per occurrence deductible. There is also \$100,000-\$200,000 excess general liability coverage in place. The workers’ compensation loss coverage is statutory, and unlimited above the retention. For each of the three most recent years, settlement of claims has not exceeded insurance coverage. Additionally, there has not been a significant reduction in insurance coverage from coverage in the prior year.

Liabilities for the self-insured exposure for workers’ compensation claims and general liability claims under the ROCIP are recognized when it is probable that losses have occurred and the amounts of the losses can be reasonably estimated. Liabilities include an amount for claims that have been incurred but not reported to date and include a provision for allocated and unallocated claim adjustment expenses. Because actual claims liabilities depend on such complex factors as inflation, changes in governing laws and standards, and court awards, the process used in computing claims liabilities is reevaluated periodically to take into consideration the history, frequency and severity of recent claims and other economic and social factors.

These liabilities are computed using a combination of actual claims experience and statistically estimated amounts. The Authority has not discounted these estimated liabilities to present value.

Changes in the Authority’s estimated ROCIP liabilities related to workers’ compensation and general liability claims during the years ended September 30, 2016, 2015 and 2014 were as follows:

Description	2016	2015	2014
Balance, beginning of year	\$ 5,702	\$ 5,242	\$ 11,827
Current year increase (decrease) in ROCIP liability	12,239	5,163	(2,410)
ROCIP administration and claim payments	<u>(11,423)</u>	<u>(4,703)</u>	<u>(4,175)</u>
Balance, end of year	<u>\$ 6,518</u>	<u>\$ 5,702</u>	<u>\$ 5,242</u>

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (12) Commitments and Contingencies – Other Liabilities (Continued)

#### (c) *Litigation*

The Authority is a party in various administrative proceedings, legal actions and claims brought by or against it in the normal course of operations by employees, contractors, and other parties. The following table reflects the changes in the Authority's estimated liabilities for litigation contingencies where the risk of loss is probable during the years ended September 30, 2016 and 2015:

<u>Description</u>	<u>2016</u>	<u>2015</u>
Balance, beginning of year	\$ 3,024	\$ 2,990
Current year claims and changes in estimates	2,050	502
Claim payments	<u>(2,076)</u>	<u>(468)</u>
Balance, end of year	<u>\$ 2,998</u>	<u>\$ 3,024</u>

Although the ultimate outcome of these legal proceedings are unknown, in the opinion of the Authority's management and legal counsel, the ultimate resolution of these actions and claims will not materially affect the financial position, results of operations, or cash flows of the Authority.

#### (d) *Federal Grants*

The Authority's federal capital grants are subject to financial and compliance audits by the U.S Environmental Protection Agency, the grantor, or its representatives. The Authority's management does not expect that the results of these audits will have a material adverse effect on the accompanying financial statements.

#### (e) *Construction and Other Significant Commitments*

The Authority's contractual commitments are primarily associated with the long-term capital improvement program. Outstanding contractual commitments related to the capital improvement program as of September 30, 2016 and 2015 were \$861,685 and \$966,985, respectively. Outstanding construction commitments are not recorded in the financial statements until goods and services have been received by the Authority in accordance with the terms of the related contracts.

#### (f) *Lease Commitments*

The Authority conducts a portion of its operations from leased facilities. Most of the leases contain renewal options. All of the leases for equipment and facilities are operating leases, and the rental payments under these leases are charged to operations as incurred.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (12) Commitments and Contingencies – Other Liabilities (Continued)

The Authority's rental expense for the years ended September 30, 2016 and 2015 were as follows:

<u>Description</u>	<u>2016</u>	<u>2015</u>
Facilities leases	\$ 1,396	\$ 1,362
Automobile equipment leases	65	70
Machinery leases	216	211
Total	<u>\$ 1,677</u>	<u>\$ 1,643</u>

Future minimum non-cancelable lease payments on existing operating leases at September 30, 2016, which have an initial term of one year or more, are as follows.

<u>Fiscal Year</u>	<u>Amount</u>
2017	\$1,142
2018	1,170
2019	1,063
2020	1,082
2021	219
2022-2026	<u>800</u>
Total	<u>\$5,476</u>

### (13) Related Party and Similar Transactions

#### (a) Water and Wastewater User Charges

The enabling legislation, described in Note 1, established that the District would pay for water and wastewater services. The Authority recorded revenues of \$28,890 and \$24,452 from the District government and \$9,295 and \$8,496 from the District of Columbia Housing Authority ("DCHA") for fiscal years 2016 and 2015, respectively. Both the District government and DCHA revenues are included in water and wastewater user charges in the accompanying statements of revenues, expenses and changes in net position.

#### (b) PILOT and ROW Fees

On October 2, 2014, DC Water entered into a Right-of-Way memorandum of understanding (ROW MOU) establishing an annual payment of \$5,100 to the District in fiscal years 2015 through 2024. DC Water will make the payment in four equal quarterly installments of \$1,275 due on the 15th of November, February, May and August of each year.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (13) Related Party and Similar Transactions (Continued)

On December 15, 2014, DC Water entered into a Payment In Lieu of Taxes memorandum of understanding (PILOT MOU) establishing a fiscal year 2015 PILOT payment of \$15,337 to the District for services provided in fiscal year 2015. In fiscal years 2016 through 2024, DC Water will increase the PILOT payment by 2.0% per annum based upon the amount of the prior fiscal year's annual PILOT payment. In addition, the MOU stipulates that the Authority is entitled to offset this payment for services rendered to the District under our fire protection program.

The Authority recorded an expense of \$15,644 and \$15,337 for payments-in-lieu-of-taxes (PILOT) to the District for services such as road repairs, fire protection, police protection, and other services for each of the years ended September 30, 2016 and 2015.

The Authority also recorded an expense of \$5,100 for the District's right-of-way (ROW) fee, respectively charged to all area utilities for infrastructure occupancy in public streets, for each of the years ended September 30, 2016 and 2015. As of September 30, 2016 there was no outstanding balance due to the District related to these fees.

#### (c) Due from District Government

The amounts due from the District government as of September 30, 2016 and 2015 were \$53,275 and \$61,733, respectively. Such amounts were comprised of the following at September 30, 2016 and 2015, respectively:

Description	2016	2015
Northeast Boundary Neighborhood Protection Project	\$ 52,271	\$ 58,579
Storm Water Fees (13 d )	(1,123)	3,335
Other miscellaneous items	2,127	(181)
Total due from District government	53,275	61,733
Less: current portion	6,411	10,022
Noncurrent portion	<u>\$ 46,864</u>	<u>\$ 51,711</u>

On September 11, 2014, the District and the Authority entered into a Memorandum of Understanding (MOU) whereby the District agreed to fund up to \$58,579 of costs incurred by the Authority on the Northeast Boundary Neighborhood Protection Project. Amounts due from the District as of September 30, 2016 and 2015 under this agreement amounted to \$52,721 and \$58,579, respectively. Amendment No. 1 of the MOU dated September 1, 2015, calls for ten (10) equal installment payments of \$5,858. The parties agreed that each installment payment is due on January 15 of each year until the costs are paid in full.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (13) Related Party and Similar Transactions (Continued)

#### (d) Storm Water Fee Billings and Collections

The District of Columbia Council created the Storm Water Compliance Amendment Act of 2000 which established the Authority as the Storm Water Administrator and a fund was established. The administration of the fund was transferred to the District Department of the Environment (“DDOE”) in 2007. The Authority continues to bill and collect storm water fees as a separate item and transfers the funds to the DDOE quarterly.

During the years ended September 30, 2016 and 2015, the activity associated with the Authority providing this service to the District was as follows:

Description	2016	2015
Due from (to) the District-beginning of year	\$ 3,335	\$ (770)
Collections on behalf of the District	(15,567)	(12,386)
Remittances to the District	11,123	16,674
Expenses incurred by the Authority	934	887
Expenses reimbursed by the District	(948)	(1,070)
Due (to) from the District-end of year	<u>\$ (1,123)</u>	<u>\$ 3,335</u>

Billings and collections associated with the District’s Storm Water fees are not reflected in the Authority’s financial statements as these are not billings and collections of the Authority. However, reimbursable expenses incurred and the related revenues from the District to cover such expenses are reflected in the accompanying statements of revenues, expenses and changes in net position.

The due (to) from the District has been reported in Due from District Government on the statement of net position as of September 30, 2016 and 2015, respectively.

### (14) Employee Benefits

#### (a) Defined Benefit Plans

Employees hired prior to October 1, 1987, participate in certain federal benefit plans administered by the federal government’s Office of Personnel Management (“OPM”). The plans are cost sharing multi-employer plans, which provide retirement and disability benefits, annual cost-of-living adjustments, and death benefits to plan participants and beneficiaries. In fiscal years 2016 and 2015, there were 133 and 156 DC Water employees covered by these plans, respectively.

The OPM issues a publically available financial report that includes financial statements and required supplementary information, which may be obtained at [www.opm.gov](http://www.opm.gov).

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (14) Employee Benefits (Continued)

Employees and the Authority each contribute 7% of the employees' salaries to OPM. The contribution requirements of the plan members are established by OPM. During fiscal years 2016, 2015 and 2014, the Authority's contributions to the plans were \$791, \$924 and \$931, respectively. These amounts were 100% of the required contributions under the plans for each of the fiscal years presented.

DC Water is only responsible for funding the employer contributions for participating employees while employed by the Authority. DC Water is not responsible for any unfunded liability for this plan. Under current law, this liability will be paid off eventually through the series of 30-year amortizations payments from the general fund of the U.S. Treasury to the Civil Service Retirement and Disability Fund.

#### (b) *Defined Contribution Plans*

*Defined Contribution Plan* - Employees who were hired after September 30, 1987, participate in the U.S. Social Security system and a defined contribution plan administered by the Authority. The District of Columbia Water and Sewer Authority Defined Contribution Plan is a qualified trust under Internal Revenue Code Section 401(a).

The Authority established a retirement plan committee that oversees the 401(a) and 457(b) retirement plans. The committee meets on a semiannual basis to make decisions regarding the plan. Pursuant to the 401(a) plan, employees not reaching the 100% vesting period of three years of service will forfeit amounts related to Basic, Matching, and Discretionary Contributions and may be used to pay for plan expenses or reduce future Authority contributions. There are no amounts of forfeitures reflected in the pension expense reported in fiscal years 2016, 2015, and 2014.

As Plan Administrator, the Authority maintains the plans' records, determines issues related to eligibility as they relate to participation and benefits, interprets the plans, communicates with participants and their beneficiaries and responsible for the plans' operations. Fidelity Investments is the Plan Trustee.

*Defined Contribution Plan* - During fiscal years 2016, 2015 and 2014, the Authority's contribution was 7% of base pay up to the social security wage base, plus 5% of base pay in excess of the social security wage base for each eligible employee. Employees do not contribute to the plan.

*457(b) Plan* - Starting in January 2000, employees who were hired after September 30, 1987, participate in the U.S. Social Security system and a 457(b) Deferred Compensation plan administered by the Authority. The District of Columbia Water and Sewer Defined Contribution Plan is a qualified trust under Internal Revenue Code Section 401.

The Authority makes a matching contribution of 100% of the amount that the employee defers to the 457(b) Deferred Compensation Plan; up to a maximum contribution of 5% of base pay for eligible employees. There is no waiting period before an employee can elect to become a participant of this plan and employees are always 100% vested in their contributions.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2016 and 2015

(In thousands)

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### (14) Employee Benefits (Continued)

The Authority's matching contribution is vested after three years of service. During fiscal years 2016, 2015 and 2014, the Authority's contributions to both defined contribution plans were \$8,357, \$7,519 and \$7,053 respectively. The amount of the Authority's outstanding liability at the end of fiscal years 2016, 2015 and 2014 were \$638, \$1,122 and \$989, respectively.

#### (c) *Post-Employment Insurance Plans*

The Authority does not provide post employment health and life insurance benefits to any employees hired after September 30, 1987. The federal government provides healthcare and life insurance benefits to certain retired employees under the Federal Employees' Health Benefits Program and the Federal Employee's Group Life Insurance Program at no cost to the Authority.

#### (d) *Retirement Health Savings Plan*

In fiscal year 2007, the Authority implemented a Retirement Health Savings Plan for non-union employees hired after September 30, 1987. The Plan allows eligible employees to receive a benefit for their unused sick leave upon separation of service. Funds are transferred to a third party (Maritain) to pay for post-employment medical expenses at the termination of employment.

### (15) Subsequent Events

The Authority has evaluated events subsequent to September 30, 2016 through December 20, 2016, the date the financial statements were available to be issued. During this period, the Authority has determined there have not been any events that have occurred that would require adjustments to the financial statements.



**Statistical  
Section  
(Unaudited)**

## **Statistical Section (Unaudited)**

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This section contains statistical tables that reflect financial trends information, revenue capacity information, debt capacity information, demographic and economic information, and operating information. These tables differ from the basic financial statements because they usually cover more than two fiscal years and may present non-accounting data.

The statistical section is divided into five sections as follows:

1. Financial Trends
  2. Revenue Capacity
  3. Debt Capacity
  4. Demographic and Economic Information
  5. Operating Information
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## **1. Financial Trends**

These schedules contain trend information to better understand how the Authority's financial performance and well-being have changed over time.

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**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 1  
CHANGE IN NET POSITION  
LAST TEN FISCAL YEARS  
(\$000)**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Operating revenues										
Residential, commercial and multi-family customers	\$ 382,552	\$ 335,711	\$ 295,209	\$ 275,337	\$ 256,846	\$ 241,475	\$ 209,796	\$ 191,543	\$ 183,553	\$ 182,327
Federal government	63,417	54,274	39,001	45,187	48,381	43,033	37,845	35,195	35,888	30,751
District government and DC Housing Authority	38,185	32,948	28,852	21,677	24,713	25,123	21,947	16,804	16,193	17,266
Charges for w holesale w astew ater treatment	91,873	112,522	96,845	87,178	94,549	90,414	87,505	85,519	82,854	73,378
Other	19,762	14,460	13,917	9,700	16,077	8,210	6,655	3,337	3,846	2,735
Total Operating Revenues	595,789	549,915	473,824	439,079	440,566	408,255	363,748	332,398	322,334	306,457
Operating expenses										
Personnel services	124,239	115,233	108,467	103,908	97,784	93,240	88,210	82,248	75,838	70,956
Contractual services	74,086	66,241	68,172	68,417	64,939	71,055	69,497	64,513	58,730	56,568
Chemicals, supplies and small equipment	29,524	32,935	31,748	28,987	28,815	28,188	29,003	29,074	28,816	24,510
Utilities and rent	23,934	30,848	29,939	26,098	26,786	29,429	29,929	32,813	37,843	32,238
Depreciation and amortization	89,512	83,857	77,833	77,330	74,342	70,209	64,425	59,291	54,418	49,355
Water purchases	26,345	29,109	28,407	27,223	28,389	27,170	27,587	25,371	25,746	24,042
Payment in lieu of taxes and right of way fee	20,744	20,437	11,458	21,982	21,982	21,982	20,474	19,183	17,525	17,514
Total operating expenses	388,384	378,660	356,024	353,945	343,037	341,273	329,125	312,493	298,916	275,183
Operating income	207,405	171,255	117,800	85,134	97,529	66,982	34,623	19,905	23,418	31,274
Non-operating revenue (expenses)										
Interest income	2,629	1,316	977	1,144	749	2,036	1,343	1,704	11,444	16,224
Interest expense and fiscal charges	(69,118)	(61,409)	(69,288)	(63,905)	(74,001)	(73,335)	(57,479)	(53,197)	(44,338)	(33,667)
Total non-operating (expenses)	(66,489)	(60,093)	(68,311)	(62,761)	(73,252)	(71,299)	(56,136)	(51,493)	(32,894)	(17,443)
Change in net position before capital contributions	140,916	111,162	49,489	22,373	24,277	(4,317)	(21,513)	(31,588)	(9,476)	13,831
Capital contributions	32,431	67,965	94,690	58,310	58,957	47,374	30,403	27,752	42,208	25,083
Change in net position	173,347	179,127	144,179	80,683	83,234	43,057	8,890	(3,836)	32,732	38,914
Net position, beginning of year	1,529,942	1,350,815	1,206,636	1,125,953	1,042,719	999,662	990,772	994,608	961,876	922,962
Net position, end of year	\$ 1,703,289	\$ 1,529,942	\$ 1,350,815	\$ 1,206,636	\$ 1,125,953	\$ 1,042,719	\$ 999,662	\$ 990,772	\$ 994,608	\$ 961,876

Source: FY 2007 - 2016 Statements of Revenues, Expenses and Changes in Net Position.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

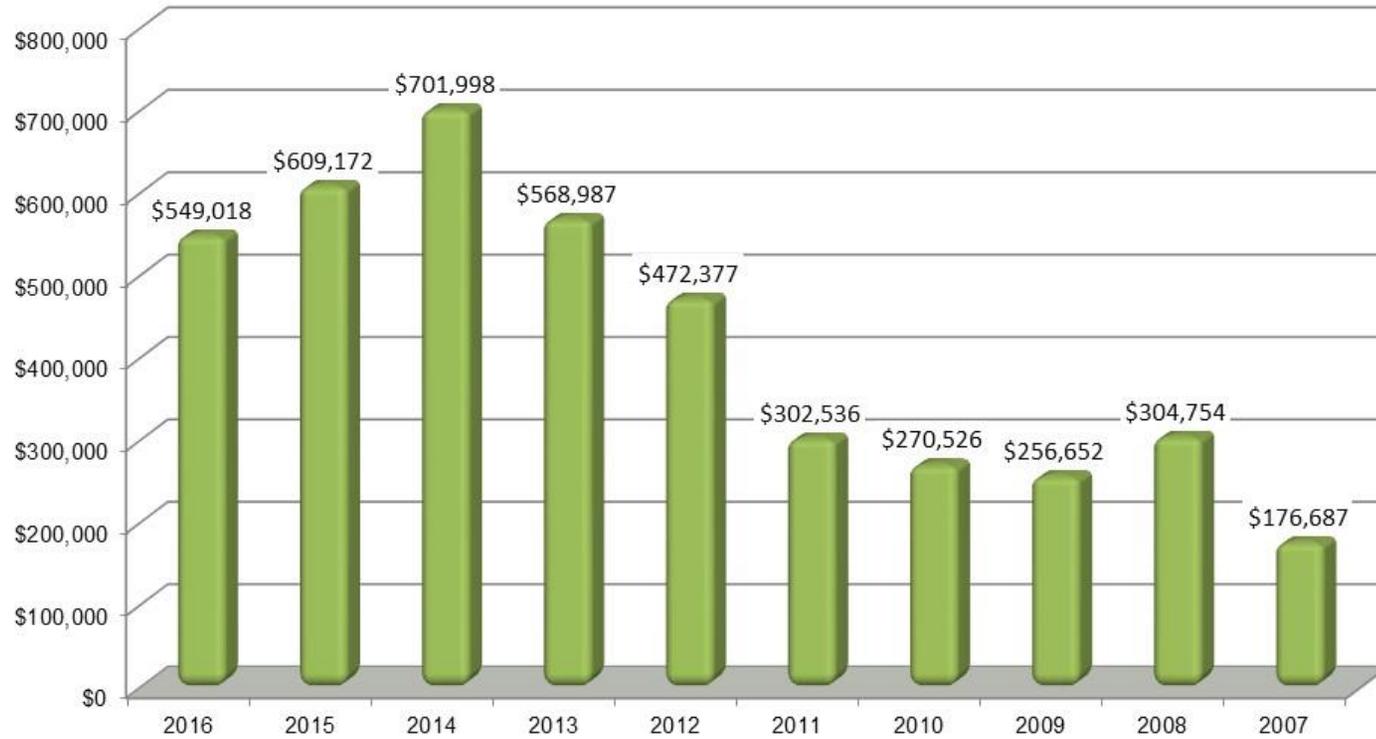
**EXHIBIT 2  
SUMMARY OF NET POSITION  
LAST TEN FISCAL YEARS  
(\$000)**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Net investments in capital assets	\$ 1,491,925	\$ 1,348,056	\$ 1,130,952	\$ 1,042,620	\$ 956,397	\$ 874,356	\$ 818,001	\$ 765,709	\$ 726,747	\$ 766,119
Restricted	33,135	27,054	28,863	29,010	27,297	26,825	17,257	10,244	8,297	6,267
Unrestricted	178,229	154,832	191,000	135,006	142,259	141,538	164,404	214,819	259,564	189,490
Total net position	<u>\$ 1,703,289</u>	<u>\$ 1,529,942</u>	<u>\$ 1,350,815</u>	<u>\$ 1,206,636</u>	<u>\$ 1,125,953</u>	<u>\$ 1,042,719</u>	<u>\$ 999,662</u>	<u>\$ 990,772</u>	<u>\$ 994,608</u>	<u>\$ 961,876</u>

Source: FY 2007 - 2016 Statements of Net Position.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 3  
CAPITAL DISBURSEMENTS  
LAST TEN FISCAL YEARS  
(\$000)**



Note: These disbursements include DC Water's share of Washington Aqueduct's capital disbursements.

Source: FY 2007 – 2016 Statements of Cash Flows.

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## **2. Revenue Capacity**

These schedules contain information regarding the Authority's most significant revenue sources.

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**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 4  
OPERATING REVENUES AND RATE INCREASES  
LAST TEN FISCAL YEARS  
(\$000)**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Operating Revenues										
Retail Customers										
Residential, Commercial and Multifamily	\$ 382,552	\$ 335,711	\$ 295,209	\$ 275,337	\$ 256,846	\$ 241,475	\$ 209,796	\$ 191,543	\$ 183,553	\$ 182,327
Federal Government	63,417	54,274	39,001	45,187	48,381	43,033	37,845	35,195	35,888	30,751
DC Government	28,890	24,453	21,205	14,714	18,213	17,827	15,628	10,116	9,391	10,580
DC Housing Authority	9,295	8,495	7,647	6,963	6,500	7,296	6,319	6,688	6,802	6,686
Other Revenues	19,762	14,460	13,917	9,700	16,077	8,210	6,655	3,337	3,846	2,735
Total Retail Customers	503,916	437,393	376,979	351,901	346,017	317,841	276,243	246,879	239,480	233,079
Wholesale Customers	91,873	112,522	96,845	87,178	94,549	90,414	87,505	85,519	82,854	73,378
Total Operating Revenues	\$ 595,789	\$ 549,915	\$ 473,824	\$ 439,079	\$ 440,566	\$ 408,255	\$ 363,748	\$ 332,398	\$ 322,334	\$ 306,457
Retail Rate Increases	6.50%	7.50%	5.50%	5.50%	4.50%	12.50%	9.00%	7.50%	5.50%	5.00%

Source: FY 2007 - 2016 Statements of Revenues, Expenses and Changes in Net Position

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 5  
NUMBER AND TYPE OF CUSTOMER ACCOUNTS  
LAST TEN FISCAL YEARS**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Retail Accounts										
Residential	106,120	105,735	104,965	104,477	103,887	103,857	103,315	103,665	103,674	103,263
Commercial <sup>(A)</sup>	18,828	18,947	19,433	19,343	19,242	19,165	19,049	19,060	18,528	18,513
Governmental										
Federal	558	550	542	542	538	549	546	540	533	531
District of Columbia	641	638	641	630	605	607	603	606	590	589
DC Housing Authority	1,462	1,446	1,452	1,460	1,435	1,431	1,431	1,220	1,218	1,175
Total Retail Accounts	127,609	127,316	127,033	126,452	125,707	125,609	124,944	125,091	124,543	124,071
DC Water	39	39	37	36	36	35	35	30	30	30
Washington Aqueduct	2	2	2	2	2	2	1	2	2	1
Wholesale	7	7	7	7	7	7	7	7	7	7
Total Number of Accounts	127,657	127,364	127,079	126,497	125,752	125,653	124,987	125,130	124,582	124,109

<sup>(A)</sup> Included in commercial are multi-family and exempt accounts

Source: D.C. Water Department of Customer Service

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 6  
TEN LARGEST COMMERCIAL CUSTOMERS  
LAST TEN FISCAL YEARS**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Howard University	\$ 3,823,023	\$ 3,237,999	\$ 2,662,949	\$ 2,699,376	\$ 2,596,564	\$ 1,862,880	\$ 1,735,598	\$ 1,640,815	\$ 1,706,124	\$ 1,751,425
William C Smith & Co	2,455,990	2,076,534	2,277,833	1,782,719	1,787,150	1,709,334	1,505,145	-	-	-
George Washington University	2,338,974	2,763,055	2,609,611	2,161,183	2,530,632	2,122,176	1,618,618	1,777,659	2,020,849	1,609,061
Washington Hospital Center	1,991,344	1,830,586	1,671,855	1,693,655	933,027	1,270,788	1,113,672	823,743	514,275	606,120
Horning Brothers	1,335,613	-	1,347,287	1,258,995	1,163,586	1,122,879	993,115	-	-	-
Georgetown University	1,324,563	1,413,714	2,605,884	1,865,068	1,842,860	2,238,766	2,100,705	2,135,768	2,055,644	841,585
Amtrak	1,019,570	1,028,989	984,336	1,004,177	937,430	903,475	761,235	963,925	795,825	-
Metropolitan Washington Airports Authority	1,008,250	923,394	807,803	716,929	661,509	-	-	-	-	-
American University	1,001,742	1,078,412	1,125,050	1,253,038	869,211	-	694,565	1,524,262	773,109	689,676
Georgetown University Hospital	920,681	720,247	955,353	1,053,659	1,643,380	1,371,035	-	-	-	1,070,099
Shoreham Hotel	-	1,035,982	-	-	-	-	-	656,182	458,828	-
The Barac Company	-	-	-	-	-	927,022	776,134	-	-	-
Soldiers Home	-	-	-	-	-	897,121	804,533	818,641	948,708	-
Marriott Wardman Park Hotel	-	-	-	-	-	-	-	1,037,663	681,480	592,663
JW Marriott Hotel	-	-	-	-	-	-	-	556,985	-	-
Children's Hospital	-	-	-	-	-	-	-	-	841,774	676,570
Washington Hilton Hotel	-	-	-	-	-	-	-	-	792,227	756,085
L'Enfant Plaza Properties	-	-	-	-	-	-	-	-	-	533,726
<b>Total</b>	<b>\$ 17,219,750</b>	<b>\$ 16,108,912</b>	<b>\$ 17,047,961</b>	<b>\$ 15,488,799</b>	<b>\$ 14,965,349</b>	<b>\$ 14,425,476</b>	<b>\$ 12,103,320</b>	<b>\$ 11,935,643</b>	<b>\$ 11,588,843</b>	<b>\$ 9,127,010</b>
<b>% of Total Operating Revenues</b>	<b>2.89%</b>	<b>2.93%</b>	<b>3.60%</b>	<b>3.53%</b>	<b>3.40%</b>	<b>3.53%</b>	<b>3.33%</b>	<b>3.59%</b>	<b>3.60%</b>	<b>2.98%</b>

Source: DC Water Department of Customer Service

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 7  
TEN LARGEST GOVERNMENT CUSTOMERS  
LAST TEN FISCAL YEARS**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
U.S. General Services Administration	\$ 11,670,623	\$ 6,425,889	\$ 7,598,077	\$ 7,184,034	\$ 7,443,691	\$ 6,877,787	\$ 6,575,977	\$ 6,773,195	\$ 8,199,985	\$ 7,324,115
D.C. Housing Authority	6,999,037	6,922,176	6,308,902	5,879,383	5,669,475	6,277,722	5,750,927	6,266,786	6,339,434	6,122,875
National Park Service	3,656,234	2,233,857	1,363,657	2,577,096	2,481,144	2,217,698	2,384,771	2,844,549	2,257,749	1,958,612
U.S. Congress	3,223,507	6,524,863	4,019,627	4,926,790	5,225,952	4,214,640	3,559,903	4,028,564	4,096,695	2,668,328
Smithsonian Institution	2,768,661	3,219,324	2,810,786	3,038,455	2,681,705	3,997,326	2,564,033	3,605,478	4,325,576	3,196,837
Bolling Air Force Base	2,602,439	2,509,536	1,928,617	2,265,348	2,925,847	-	-	2,279,861	-	-
D.C. Board of Education	2,228,498	2,166,846	2,391,393	2,092,748	2,213,636	2,142,907	2,534,044	2,292,454	3,062,431	3,344,959
Federal Naval Research Lab	1,975,742	1,802,150	1,542,370	1,833,491	1,788,497	-	-	-	-	-
Department of the Navy	1,708,908	-	-	1,521,264	1,886,750	3,832,568	2,851,611	3,504,547	3,011,883	2,835,280
D.C. Recreation and Parks	1,695,630	1,702,488	1,216,398	-	-	-	-	-	-	-
D.C. Department of Human Services	-	-	-	-	-	3,272,747	2,047,213	-	1,914,251	1,741,170
Department of Defense DC	-	-	-	-	-	2,151,529	1,608,642	2,248,076	3,292,402	3,907,312
Department Defense VA	-	4,020,624	3,275,936	3,275,936	3,527,613	2,873,310	2,759,264	2,136,653	2,425,139	1,998,095
<b>Total</b>	<b>\$ 38,529,279</b>	<b>\$ 37,527,753</b>	<b>\$ 32,455,763</b>	<b>\$ 34,594,545</b>	<b>\$ 35,844,310</b>	<b>\$ 37,858,234</b>	<b>\$ 32,636,385</b>	<b>\$ 35,980,163</b>	<b>\$ 38,925,545</b>	<b>\$ 35,097,583</b>
<b>% of Total Operating Revenues</b>	<b>6.47%</b>	<b>6.82%</b>	<b>6.85%</b>	<b>7.88%</b>	<b>8.14%</b>	<b>9.27%</b>	<b>8.97%</b>	<b>10.82%</b>	<b>12.08%</b>	<b>11.45%</b>

Source: DC Water Department of Customer Service

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 8  
RETAIL WATER AND SEWER RATES  
LAST TEN FISCAL YEARS**

<u>FISCAL YEAR</u>	<u>(a) METERING FEE</u>	<u>(b) WATER SYSTEM REPLACEMENT FEE</u>	<u>(c) DISTRICT PUBLIC SPACE OCCUPANCY FEE AND PILOT</u>	<u>(d) WATER CONSUMPTION RATE</u>	<u>(e) SEWER CONSUMPTION RATE</u>	<u>(f) COMBINED CONSUMPTION RATE</u>	<u>(g) IMPERVIOUS SURFACE AREA CHARGE <sup>2</sup></u>	<u>AVERAGE MONTHLY BILL <sup>1</sup></u>
2007	2.010	-	0.44	2.03	3.06	5.09	-	36.30
2008	2.010	-	0.47	2.14	3.23	5.37	-	38.22
2009	2.010	-	0.52	2.30	3.31	5.61	1.24	41.26
2010	2.010	-	0.57	2.51	3.61	6.12	2.20	45.69
2011	3.860	-	0.63	3.10	3.79	6.89	3.45	53.93
2012	3.860	-	0.64	3.24	3.96	7.20	6.64	59.11
2013	3.860	-	0.66	3.42	4.18	7.60	9.57	64.64
2014	3.860	-	0.70	3.61	4.41	8.02	11.85	69.77
2015	3.860	-	0.63	3.88	4.74	8.62	16.75	77.96
2016	3.860	6.30	0.64	3.36 <sup>3</sup>	5.44	8.80	20.30	88.99

<sup>1</sup> Average residential customer consumption is 6.2 Ccf per month. The average monthly bill is calculated as follows (a)+(b)+(g)+(((c)+(f)) x 6.2 Ccf)

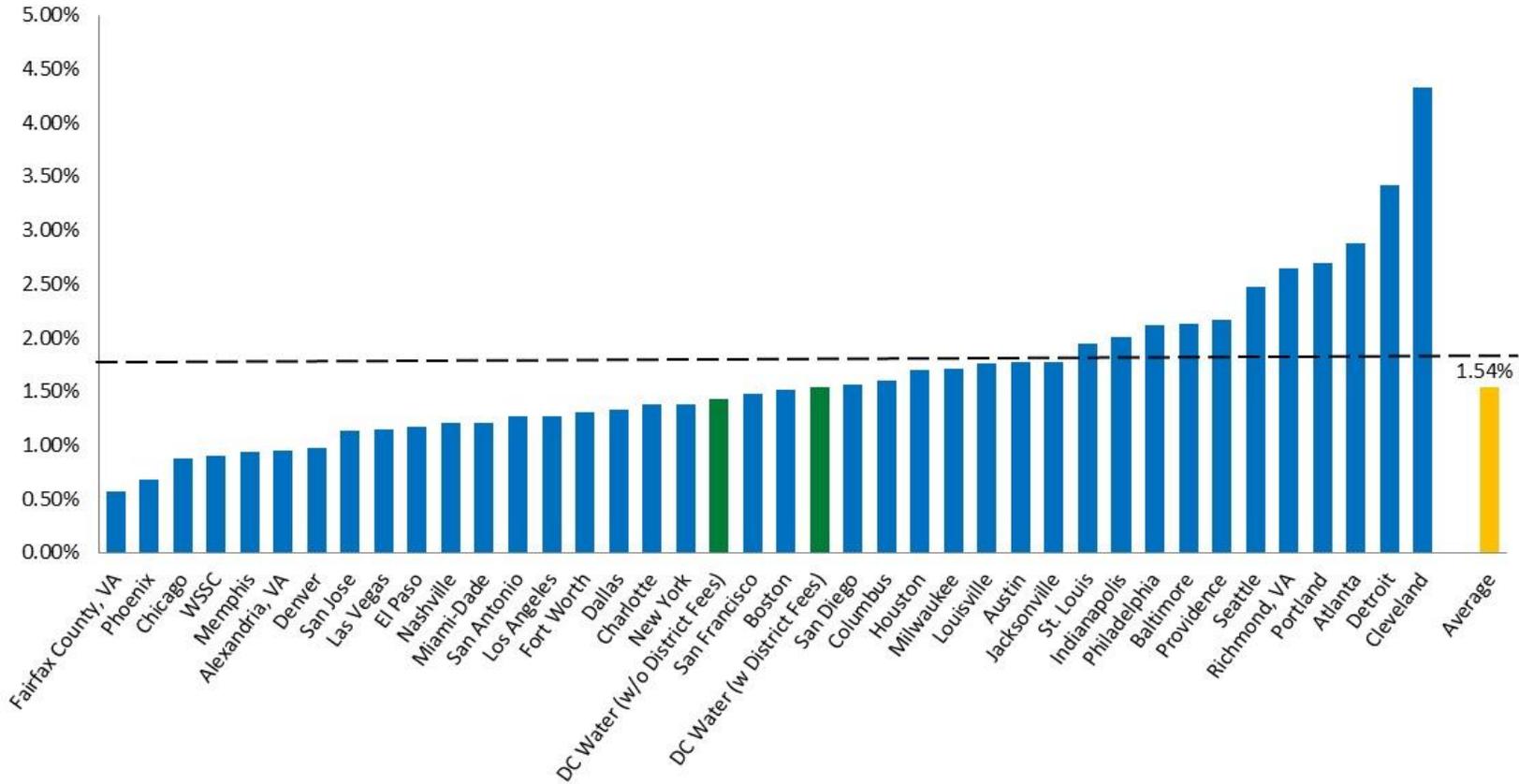
<sup>2</sup> Per Equivalent Residential Unit (ERU).

<sup>3</sup> Weighted average water rate for residential customers.

Source: D.C. Water Department of Finance & Budget

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## EXHIBIT 9 RESIDENTIAL WATER AND WASTEWATER BILL COMPARISONS AS A PERCENTAGE OF MEDIAN HOUSEHOLD INCOME (1)

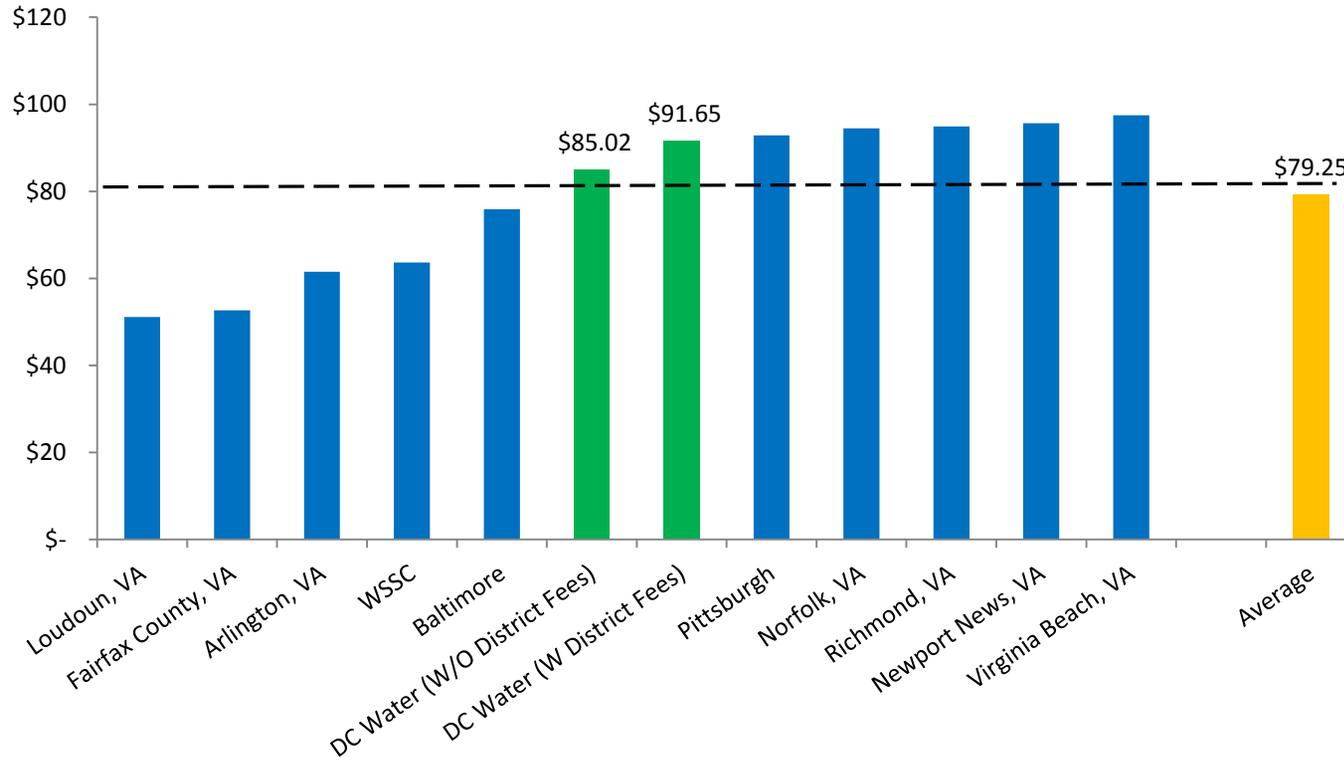


(1) This analysis is based on a single family residential monthly bill as a percentage of median household income for large national utilities based on rates in effect fall 2016.

Source: DC Water Department of Finance & Budget

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## EXHIBIT 10 RESIDENTIAL WATER AND WASTEWATER BILL COMPARISONS TO LOCAL AND REGIONAL UTILITIES (1)



(1) This analysis represents single family residential average monthly bill based on rates in effect fall 2016.

Source: DC Water Department of Finance & Budget

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### **3. Debt Capacity**

These schedules present information showing the Authority's current levels of outstanding debt and the Authority's ability to issue additional debt in the future.

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# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## EXHIBIT 11 OUTSTANDING DEBT AND DEBT RATIOS LAST TEN FISCAL YEARS (\$000, EXCEPT PER CAPITA)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<b>Senior Debt:</b>										
2014 Public Utility Revenue Bonds	\$ 350,000	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2009 Series A Public Utility Revenue Bonds	11,535	159,520	291,145	293,720	296,205	298,225	300,000	300,000	-	-
1998 Public Utility Revenue Bonds	170,525	183,660	196,050	207,735	218,815	229,315	239,270	248,705	257,645	266,120
<b>Total Senior Debt</b>	<b>532,060</b>	<b>693,180</b>	<b>837,195</b>	<b>501,455</b>	<b>515,020</b>	<b>527,540</b>	<b>539,270</b>	<b>548,705</b>	<b>257,645</b>	<b>266,120</b>
<b>Subordinate Debt:</b>										
2016 Series A Public Utility Revenue Bonds	389,110									
2016 Series B Public Utility Revenue Bonds	25,000									
2015 Series A Public Utility Revenue Bonds	100,000									
2015 Series B Public Utility Revenue Bonds	250,000									
2014 Series B-1 Public Utility Revenue Bonds	50,000	50,000	50,000	-	-	-	-	-	-	-
2014 Series B-2 Public Utility Revenue Bonds	50,000	50,000	50,000	-	-	-	-	-	-	-
2014 Series C Public Utility Revenue Bonds	377,110	377,700	-	-	-	-	-	-	-	-
2013 Series A Public Utility Revenue Bonds	300,000	300,000	300,000	300,000	-	-	-	-	-	-
2012 Series A Public Utility Revenue Bonds	163,655	168,405	172,990	177,430	177,430	-	-	-	-	-
2012 Series B-1 Public Utility Revenue Bonds	-	-	52,690	52,690	52,690	-	-	-	-	-
2012 Series B-2 Public Utility Revenue Bonds	-	47,310	47,310	47,310	47,310	-	-	-	-	-
2012 Series C Public Utility Revenue Bonds	163,215	163,215	163,215	163,215	163,215	-	-	-	-	-
2010 Series A Public Utility Revenue Bonds	300,000	300,000	300,000	300,000	300,000	300,000	-	-	-	-
2008 Series A Public Utility Revenue Bonds	20,200	168,190	268,095	274,210	279,955	285,540	290,000	290,375	290,375	-
2007 Series A Public Utility Revenue Bonds	-	115,580	218,715	218,715	218,715	218,715	218,715	218,715	218,715	218,715
2007 Series B Public Utility Revenue Bonds	-	-	-	-	-	-	-	-	-	59,000
2004 Public Utility Revenue Bonds	-	-	-	-	-	-	-	-	-	295,000
2003 Public Utility Revenue Bonds	-	-	-	-	-	176,220	176,220	176,220	176,220	176,220
<b>Notes Payable to the Federal</b>										
Government for Bloomington Dam	12,841	13,217	13,580	13,932	14,273	14,603	14,922	15,232	15,532	15,823
DC General Obligation Bonds	-	-	-	-	-	245	1,490	5,180	9,905	15,060
Notes Payable to WSSC for Little Seneca	-	-	-	-	63	104	142	179	216	251
<b>Total Subordinate Debt</b>	<b>2,201,131</b>	<b>1,753,617</b>	<b>1,636,595</b>	<b>1,547,502</b>	<b>1,253,651</b>	<b>995,427</b>	<b>701,489</b>	<b>705,901</b>	<b>710,963</b>	<b>780,069</b>
<b>Total Senior and Subordinate debt</b>	<b>2,733,191</b>	<b>2,446,797</b>	<b>2,473,790</b>	<b>2,048,957</b>	<b>1,768,671</b>	<b>1,522,967</b>	<b>1,240,759</b>	<b>1,254,606</b>	<b>968,608</b>	<b>1,046,189</b>
Unamortized bond premiums	198,677	104,060	76,098	79,313	79,674	28,255	29,929	31,102	31,255	20,051
Unamortized bond discounts	(2,222)	(2,351)	(2,480)	(2,608)	(2,784)	(2,879)	(2,968)	(3,053)	(3,134)	(3,211)
<b>Total Debt</b>	<b>\$ 2,929,646</b>	<b>\$ 2,548,506</b>	<b>\$ 2,547,408</b>	<b>\$ 2,125,662</b>	<b>\$ 1,845,561</b>	<b>\$ 1,548,343</b>	<b>\$ 1,267,720</b>	<b>\$ 1,282,655</b>	<b>\$ 996,729</b>	<b>\$ 1,063,029</b>
Debt - per capita	N/A	\$ 3,791	\$ 3,866	\$ 3,288	\$ 2,919	\$ 2,505	\$ 2,096	\$ 2,166	\$ 1,718	\$ 1,851
Debt - as percentage of personal income	N/A	5.17%	5.54%	4.37%	3.90%	3.40%	2.94%	3.18%	2.43%	2.83%

N/A: population and personal income not available

See exhibits 13 and 14 for District of Columbia personal income and population data.

Total debt doesn't include outstanding debt associated with DC Water's short-term debt (commercial paper) program.

Source: D.C. Water Department of Finance & Budget

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 12  
CALCULATION OF DEBT SERVICE COVERAGE  
FY 2016 (\$000)**

Prepared in accordance with the Authority's Master Trust Indenture, which corresponds closely to the cash basis of accounting.

Calculation of Debt Service Coverage:	
Cash Receipts (Revenues)	
Retail	\$ 451,467
Wholesale	79,784
Other Non-Operating	58,078
Transfer from (Contributions to) Rate Stabilization Fund	(19,000)
Total Cash Receipts (A)	<u>570,329</u>
Cash Disbursements (Operating Expenses) (B)	<u>298,452</u>
Cash Receipts Less Cash Disbursements (C=A-B)	<u>\$ 271,877</u>
Debt Service:	
Senior Debt Service (D)	\$ 46,829
Subordinate Debt Service (E)	105,252
Total Outstanding and Projected Debt Service (F=D+E)	<u>\$ 152,081</u>
Calculation of Net Cash Receipts Available for Senior Debt Service:	
Cash Receipts Less Cash Disbursements (C)	\$ 271,877
Prior Year Federal Billing Reconciliation	(11,679)
(Refund to)/Payment from Wholesale Customers	(13,017)
Net Cash Receipts Available for Senior Debt Service (G)	<u>\$ 247,181</u>
<b>Senior Debt Service Coverage (G/D)</b>	<b><u>5.28</u></b>
Calculation of Subordinate Debt Service Coverage:	
Net Cash Receipts Available for Senior Debt Service (G)	\$ 247,181
Less Senior Debt Service (D)	(46,829)
Net Cash Receipts Available for Subordinate Debt Service (G-D)	<u>\$ 200,352</u>
<b>Subordinate Debt Service Coverage ((G-D)/E)</b>	<b><u>1.90</u></b>
<b>Combined Debt Service Coverage (G/F)</b>	<b><u>1.63</u></b>

Source: D.C. Water Department of Finance & Budget

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#### **4. Demographic and Economic Information**

These schedules offer demographic and economic data to help explain the environment within which the Authority's financial activities take place.

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**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 13  
POPULATION OF SERVICE AREA JURISDICTIONS  
LAST TEN CALENDAR YEARS**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
District of Columbia	N/A	672,228	658,893	646,449	632,323	617,996	604,912	592,228	580,236	574,404
Montgomery County, MD	N/A	1,040,116	1,030,447	1,016,677	1,004,709	989,794	975,439	959,013	942,748	931,694
Prince George's County, MD	N/A	909,535	904,430	890,081	881,138	871,233	865,219	856,161	850,167	849,916
Fairfax County, VA	N/A	1,180,139	1,175,622	1,168,405	1,155,292	1,135,992	1,121,054	1,099,347	1,077,509	1,060,356
Loudoun County, VA	N/A	375,629	363,050	349,679	336,898	325,405	315,305	303,661	292,570	279,704

N/A: Not Available

Source: U.S. Department of Commerce, Bureau of Economic Analysis

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 14  
PERSONAL INCOME OF SERVICE AREA JURISDICTIONS  
LAST TEN CALENDAR YEARS  
(\$000)**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
District of Columbia	N/A	\$49,275,917	\$ 46,015,860	\$48,696,519	\$ 47,280,666	\$ 45,597,835	\$ 43,082,099	\$ 40,326,374	\$ 41,014,705	\$ 37,525,123
Montgomery County, MD	N/A	79,946,266	75,720,017	73,958,785	73,551,167	69,050,166	65,904,393	62,962,957	65,845,731	62,643,745
Prince George's County, MD	N/A	40,806,805	40,215,913	38,595,921	38,481,250	35,036,640	33,888,631	33,156,357	33,026,742	31,753,583
Fairfax County, VA	N/A	88,419,380	88,180,013	83,835,355	82,727,342	78,392,046	75,161,493	71,954,372	75,302,775	73,256,103
Loudoun County, VA	N/A	26,254,562	24,463,869	20,886,046	20,107,077	18,626,729	16,971,112	15,340,608	15,147,096	13,875,373

N/A: Not Available

Source: U.S. Department of Commerce, Bureau of Economic Analysis

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 15  
PER CAPITA PERSONAL INCOME OF SERVICE AREA JURISDICTIONS  
LAST TEN CALENDAR YEARS**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
District of Columbia	N/A	\$ 73,302	\$ 69,838	\$ 75,329	\$ 74,773	\$ 73,783	\$ 71,220	\$ 69,093	\$ 70,686	\$ 65,329
Montgomery County, MD	N/A	76,863	73,483	72,746	73,206	69,762	67,564	65,654	69,844	67,236
Prince George's County, MD	N/A	44,866	44,465	43,362	43,672	40,215	39,168	38,727	38,847	37,361
Fairfax County, VA	N/A	74,923	75,007	71,752	71,607	69,008	67,045	65,452	69,886	69,086
Loudoun County, VA	N/A	69,895	67,384	59,729	59,683	57,242	53,824	50,519	51,773	49,607

N/A: Not Available

Source: U.S. Department of Commerce, Bureau of Economic Analysis

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 16  
UNEMPLOYMENT RATES  
LAST TEN CALENDAR YEARS**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
District of Columbia	6.5%	6.9%	7.0%	7.3%	8.2%	10.2%	10.1%	9.7%	6.6%	5.5%
Montgomery County, MD	3.2%	4.0%	4.1%	4.5%	4.7%	5.2%	5.8%	5.6%	3.2%	2.6%
Prince George's County, MD	4.1%	5.1%	5.5%	6.2%	6.5%	7.0%	7.7%	7.3%	4.4%	3.6%
Fairfax County, VA	3.3%	3.3%	3.6%	3.7%	3.6%	4.3%	4.9%	4.9%	2.9%	2.2%
Loudoun County, VA	3.3%	3.3%	3.6%	3.9%	3.7%	4.2%	4.8%	4.8%	2.8%	2.1%

Source: U.S. Department of Labor, Bureau of Labor Statistics

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 17  
EMPLOYMENT BY SECTOR**

	DISTRICT OF COLUMBIA	MONTGOMERY COUNTY	PRINCE GEORGE'S COUNTY	FAIRFAX COUNTY	LOUDOUN COUNTY
Agriculture, Forestry, Mining, etc.	0.06%	0.32%	0.09%	0.22%	0.81%
Construction	2.03%	5.69%	8.76%	4.57%	8.16%
Manufacturing	0.22%	1.92%	1.84%	0.83%	3.25%
Transportation & Public Utilities	1.38%	2.06%	4.33%	2.27%	5.81%
Wholesale & Retail Trade	3.64%	9.56%	13.47%	8.19%	12.07%
Finance, Insurance & Real Estate	6.07%	11.86%	6.52%	9.49%	8.14%
Services	58.11%	54.56%	43.30%	60.72%	50.55%
Government (Federal, State & Local)	26.82%	12.87%	20.03%	12.54%	10.66%
Military	1.65%	1.14%	1.66%	1.16%	0.54%
<b>TOTAL</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Source: U.S. Department of Commerce, Bureau of Economic Analysis  
Latest available data is for 2015

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## **5. Operating Information**

These schedules contain information about the Authority's operations and resources to help the reader understand how the Authority's financial information relates to the activities it perform.

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**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 18  
WATER DELIVERED (PUMPED) AND BILLED (SOLD)  
LAST TEN FISCAL YEARS**

FISCAL YEAR	TREATED WATER DELIVERED (MG)	WATER BILLED (MG)	SOLD/PUMPED RATIO
2007	41,687	31,581	75.76%
2008	40,755	30,603	75.09%
2009	39,998	29,344	73.36%
2010	38,589	29,004	75.16%
2011	37,556	29,040	77.32%
2012	36,930	27,988	75.79%
2013	34,714	26,316	75.81%
2014	34,708	25,374	73.11%
2015	38,146	26,748	70.12%
2016	36,363	26,325	72.40%

Source: DC Water Department of Customer Service

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 19  
WATER DEMAND  
LAST TEN FISCAL YEARS**

<u>FISCAL YEAR</u>	<u>ANNUAL DELIVERIES TO SYSTEM (MG)</u>	<u>AVERAGE DAY (MG)</u>	<u>MAXIMUM MONTH AVERAGE (MGD)</u>	<u>MAXIMUM DAY (MGD)</u>	<u>TOTAL ANNUAL WATER SOLD (MG)</u>	<u>AVERAGE DAY (MGD)</u>
2007	41,687	114.2	133.7	156.5	31,581	86.5
2008	40,755	111.7	130.1	150.5	30,603	83.8
2009	39,998	109.6	123.2	150.4	29,344	80.4
2010	38,589	105.7	130.5	146.9	29,004	79.5
2011	37,556	102.9	121.6	143.7	29,040	79.6
2012	36,930	100.9	125.3	142.9	27,988	76.5
2013	34,714	95.1	111.3	129.7	26,316	72.1
2014	34,708	95.1	106.6	123.7	25,374	69.5
2015	38,146	104.5	117.7	148.4	26,748	73.3
2016	36,363	99.4	113.8	127.7	26,325	71.9

Source: DC Water Department of Water Services and Washington Aqueduct

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 20  
MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS  
LAST TEN FISCAL YEARS**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<b>Utilities and supplies per day at Blue Plains</b>										
Electric power (kwh)	615,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	745,000	745,000
Natural gas (cf)	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Sodium hypochlorite (gallons)	10,051	10,051	6,850	6,850	6,850	6,850	6,850	6,850	6,850	6,850
Sodium bisulfite (pounds)	7,880	7,880	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600
Water (gallons)	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000
Lime (tons, pounds)	0	39,000	72,050	72,050	72,050	72,050	72,050	72,050	72,050	72,050
Sodium hydroxide (pounds)	14,766	14,766	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100
Methanol (gallons)	19,428	19,428	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Ferric chloride (10% Iron) (gallons)	19,060	19,060	12,900	12,900	12,900	12,900	12,900	12,900	12,900	12,900
<b>Wastewater treatment capacity</b>										
Average day (mgd)	370	370	370	370	370	370	370	370	370	370
Peak 4 hour flow, through complete process (mgd)	511	511	740	740	740	740	740	740	740	740
Excess storm flow, primary treatment only (mgd)	336	336	336	336	336	336	336	336	336	336
Peak flow (mgd)	847	847	1,076	1,076	1,076	1,076	1,076	1,076	1,076	1,076
<b>DC Water employees</b>	1,121	1,164	1,079	1,080	1,051	1,032	1,004	1,000	961	948

Source: D.C. Water Department of Wastewater Treatment Operations

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 20  
MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS  
(CONTINUED)**

**Wastewater Plant Permit Limitations**  
**September 30, 2010 through September 30, 2015**

<b>Parameter</b>	<b>Monthly</b>	<b>Weekly</b>
Biochemical Oxygen Demand (carbonaceous)	5.0 mg/L (15,429 lbs./day)	7.5 mg/l (23,143 lbs./day)
Total Suspended Solids (TSS)	7.0 mg/l (21,600 lbs./day)	10.5 mg/l (32,400 lbs./day)
Ammonia Nitrogen		
Summer (5/1 – 10/31)	4.2 mg/l (12,960 lbs./day)	6.1 mg/l (18,823 lbs./day)
Winter 1 (1/1 – 2/14)	11.1 mg/l (34,253 lbs./day)	14.8 mg/l (45,670 lbs./day)
Winter 2 (2/15 – 4/30)	12.8 mg/l (39,500 lbs./day)	17.0 mg/l (52,460 lbs./day)
Total Phosphorus (annual average)	0.18 mg/l (555 lbs./day)	0.35 mg/l (1080 lbs./day)
Dissolved Oxygen		
Minimum daily average	5.0 mg/l	
Not less than	4.0 mg/l	
pH		
Minimum	6.0 units	
Maximum	8.5 units	
Total Chlorine	Non detectable	
E.coli	123 cu/100ml Geometric (30 day)	
Chesapeake Bay Voluntary Agreement		
Total Nitrogen (Annual Average)	8,467,200 lbs./yr	
U.S. Environmental Protection Agency		
Total Nitrogen (Annual Average)	4,337,580 lbs./yr	

**Wastewater Plant Processes**

**Primary Treatment**

Influent Pumping Capacity	1,300 MGD
Number of bar screens	13
Number of aerated grit chambers	16
Total volume of aerated grit chambers	2.3 MG
Number of primary clarifiers	36
Average detention time (clarifiers)	2.5 hours
Average hydraulic loading (clarifiers)	1,008 gallons/square foot/day
Maximum hydraulic loading (clarifiers)	2,929 gallons/square foot/day

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 20  
MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS  
(CONTINUED)**

**Secondary Treatment**

Number of reactors	6
Total reactor volume	27.7 MG
Number of clarifiers	24
Average reactor detention time	1.6 hours
Average clarifier hydraulic loading	763 gal/sq ft./day
Number of centrifugal blowers	6
Total blower capacity	280,000 cu ft. /min
Average MLSS	2,200 mg/L
Average SRT	1.6 days
Average SVI	80-100 ml/g
Effluent dissolved oxygen	2-3 mg/L
Effluent alkalinity	140 mg/L as CaCO <sub>3</sub>

**Nitrification / Denitrification**

Number of Nitrification reactors	12
Total reactor volume	55.2 MG
Number of Denitrification reactors	8
Total reactor volume	36.7 MG
Number of clarifiers	28
Average reactor detention time	3.3 hours
Average clarifier hydraulic loading	755 gallons/square ft./day
Average MLSS	2000 mg/L
Average pH	7.0 units
Average SRT	21 days
Average SVI	80-110 ml/g
Effluent alkalinity	110 mg/L as CaCO <sub>3</sub>

Effluent dissolved oxygen (Post – Aeration)	3.8 – 7.2 mg/L
Dual Purpose sedimentation tanks	4 Secondary Treatments 4 Nitrification Treatments
Total Dual Purpose Surface Area	197,160 sq. ft.

**Filtration & Disinfection**

Number of filters	40
Total filter area	83,200 sq. ft.
Average filtration rate	3.4 gal/ minute/ sq. ft.
Average filter run time	55 hours
Depth of anthracite media	24 inches
Depth of sand media	12 inches
Depth of Gravel Support Layer	12 inches
Number of chlorine contact tanks	4
Average contact time	42 minutes

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 21  
SCHEDULE OF INSURANCE  
AS OF SEPTEMBER 30, 2016**

<b>TYPE OF COVERAGE</b>	<b>COMPANY</b>	<b>POLICY PERIOD</b>	<b>COVERAGE LIMITS</b>
Blanket Property and Boiler & Machinery	Alliant Public Entity Property Insurance Program (PEPIP)	July 1, 2016– July 1, 2017	<p>\$1,000,000,000 Blanket Buildings and Contents – (Specified Locations) and Mobile Equipment</p> <p>\$100,000,000 Boiler and Machinery</p> <p>\$25,000,000 Miscellaneous Locations</p> <p>\$100,000,000 Earth Movement</p> <p>\$100,000,000 Excess Flood (over NFIP), except \$25,000,000 Locations within 100 Year Flood Zone (e.g. Blue Plains)</p> <p>Terrorism: \$650,000,000 per occurrence, \$1,250,000,000 annual aggregate (\$250,000,000 of occurrence and aggregate limit dedicated solely to DC Water)</p> <p>\$25,000,000 Transit Per Shipment</p> <p>Deductibles: \$1,000,000 Any Loss, except \$10,000 Equipment</p>
Fidelity & Crime Insurance	Travelers Insurance	July 1, 2016– July 1, 2017	<p>\$10,000,000 - Employee Dishonesty, Forgery, Funds Transfer, Fraud, Money &amp; Securities</p> <p>Deductible: \$200,000 Per Occurrence</p>
Commercial General Liability	Self-Funded		\$1,000,000 each occurrence
Commercial Automobile	Self-Funded		<p>\$1,000,000 any one accident</p> <p>100% Physical Damage - self-funded</p>
Worker's Compensation	Self-Funded		<p>\$1,000,000 each accident</p> <p>Statutory WC Benefits</p> <p>Employer's Liability - \$1,000,000 Each Accident; \$1,000,000 Disease/ Employee</p>
Excess Worker's Compensation Insurance	Safety National	July 1, 2016– July 1, 2017	<p>Unlimited - WC Benefits; \$3,000,000 - Employer's Liability (Included - Terrorism)</p> <p>Retentions: \$1,000,000/accident; \$1,000,000 Disease/ Employee.</p>
Excess General Liability, Automobile Liability, and Employers Liability Insurance	AEGIS	July 1, 2016– July 1, 2017	\$35,000,000 in excess of \$1,000,000
Excess Liability	Alliant Catastrophe Liability Insurance Program (C.L.I.P.)	July 1, 2016– July 1, 2017	\$65,000,000 in excess of \$35,000,000
Public Official Liability	RSUI Indemnity / Hiscox Insurance Company	July 1, 2016– July 1, 2017	<p>\$20,000,000 Each Loss / Aggregate</p> <p>Retentions: \$250,000 per wrongful act</p>
Fiduciary Liability	Travelers Insurance	July 1, 2016– July 1, 2017	<p>\$5,000,000 Each Loss / Aggregate</p> <p>Deductible: \$0 per claim</p>
Cyber	Beazley	July 1, 2016– July 1, 2017	<p>\$5,000,000 Each Loss/Aggregate</p> <p>Deductible: \$100,000</p>
Professional Liability	Lloyds of London	July 1, 2016– July 1, 2017	<p>\$2,000,000 Each Loss</p> <p>Deductible: \$10,000</p>
National Flood	NFIP	July 1, 2016– July 1, 2017	<p>\$500,000 building/contents</p> <p>Deductible: \$50,000 per building/contents</p>

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 22  
SUMMARY OF MAJOR PERMITS AND ADMINISTRATIVE ORDERS  
AS OF SEPTEMBER 30, 2016**

<b>Wastewater</b>	<b>Description</b>	<b>Expiration Date</b>	<b>Current Status</b>
<b>National Pollutant Discharge Elimination System</b> Permit # DC0021199	Authorizes discharge of treated wastewater from Blue Plains into the Potomac River and from the combined sewer system into Rock Creek, the Anacostia River, and the Potomac River. Prescribes operating conditions for the plant and sewer system.	September 30, 2015 <sup>(1)</sup>	In Compliance
<b>National Pollutant Discharge Elimination System</b> Municipal Separate Storm Sewer (MS4) Permit # DC0000221	Permit issued to Government of District of Columbia which prescribes certain actions to DC Water including:  Responding to sanitary sewer overflows (SSO)  Reporting SSOs that overflow to MS4 system to public health agencies  Cleaning catch basins and removing trash from waterbodies  Maintaining storm sewer system infrastructure  Collection of stormwater fees	October 7, 2016 <sup>(1)</sup>	In Compliance
<b>1995 Consent Decree</b> Civil Action No.: 90-1643-JGP and 84-2842-JGP	Requires certain actions including:  Review procurement practices & maintenance procedures  Undertake Operational Capability Review  Conduct a pilot project for biological nitrogen reduction	N/A	In Compliance All items completed; awaiting action to terminate decree
<b>1996 Stipulated Agreement &amp; Order</b> Civil Action No.: 96-669-TFH	Requires certain actions including:  Rehabilitate and maintain certain facilities and capital equipment in good operating condition  Maintain certain records and data for status reports and prepare monthly reports on status of compliance  Maintain user fees in separate accounts and make timely payment of invoices	N/A	In Compliance All items completed; awaiting action to terminate agreement and order
<b>2003 Consent Decree</b> Civil Action No.: 1:00CV00183TFH Civil Action No.: 02-2511 (TFH)	Requires certain actions including:  Replacement/repair of control structures Cleaning/inspection of catch basins Rehabilitation of pumping stations Rehabilitation of Blue Plains grit chambers and influent screens Inspection of certain sewers and siphons Public education/outreach activities Payment of civil penalty of \$250,000 Conduct/support of supplemental environmental projects	N/A	In Compliance
<b>2005 Modified Consent Decree for CSS LTCP</b> Consolidate Civil Action No; 1:00CV00183TFH	Requires implementing various components of the combined sewer system (CSS) long term control plan (LTCP). On January 14, 2016, the Court entered the First Amendment to the Consent Decree to incorporate DC Water's Total Nitrogen Wet Weather Plan and modify the requirement for the Potomac and Rock Creek watersheds to include Green/Gray Infrastructure in Potomac watershed, and Gray Infrastructure in the Rock Creek watershed. The Consent Decree does not have an expiration date.	N/A	In Compliance
<b>DC Department of Energy and the Environment</b>	Permit to construct the enhanced nitrogen removal facility	2/20/2015 <sup>(2)</sup>	In Compliance
<b>DC Department of Energy and The Environment</b>	Permit to construct biosolids project – main process train/combined heat & power/final dewatering facility	3/15/2015 <sup>(2)</sup>	In Compliance

<sup>(1)</sup>Administratively extended in accordance with the terms of the permit.

<sup>(2)</sup>Extended monthly pending issuance of revised permit.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**EXHIBIT 23  
BUDGETARY COMPARISON SCHEDULE  
FOR FISCAL YEAR 2016**

	Revised Budget	Actual Expenditures	Variance
Expenditures			
Personnel services	\$ 140,034	\$ 141,886	\$ (1,852)
Contractual services	79,244	74,086	5,158
Water purchases	30,740	26,345	4,395
Chemicals and supplies	35,951	28,966	6,985
Utilities and rent	35,018	23,934	11,084
Small equipment	1,465	672	793
Interest and fiscal charges (debt service)	174,766	149,781	24,985
Payment in lieu of tax & right of way fee	20,744	20,744	-
Cash financed capital improvements	23,644	-	23,644
Total budgetary basis expenditures	<u>\$ 541,605</u>	\$ 466,413	<u>\$ 75,193</u>

Reconciliation between total budgetary basis expenditures and total expenses reported in statements of revenues, expenses and changes in net position

Capitalized personnel expenditures	(17,648)
Depreciation expense	89,512
Long-term debt - principal payments	(28,460)
Long-term debt - capitalized interest	(62,800)
Build America Bonds subsidy	7,969
Inventory issuances	(112)
Non-budgeted expenses	<u>2,628</u>
Total expenses reported in statements of revenues, expenses and changes in net position	<u>\$ 457,502</u>

## **DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

### **EXHIBIT 23 BUDGETARY COMPARISON SCHEDULE FOR FISCAL YEAR 2016 (CONTINUED)**

#### **BUDGETARY ACCOUNTING AND CONTROL**

##### **Budget Law**

The Authority prepares its operating and capital budgets under the provisions of its enabling legislation. In accordance with those provisions, the following process is used to adopt the annual budget.

- Development of the 10-year financial plan
- Development of individual departmental operating budgets, based on the financial framework in the 10-year financial plan
- Review and development of the Authority wide proposed budget by the General Manager
- Presentation of proposed budget to the Board of Directors
- Review and development of proposed budget by the Board of Directors
- Adoption of proposed budget by the Board of Directors
- Submission of proposed budget to the District of Columbia for inclusion in its budget
- District of Columbia budget submission to U.S. Congress
- Approval of proposed budget by U.S. Congress and President

##### **Budgetary Accounting**

The Authority is a single enterprise fund and maintains accounting records using the accrual basis of accounting, in accordance with U.S. generally accepted accounting principles (GAAP). Under this basis of accounting, revenues are recognized when earned, and expenses are recognized when goods and services are received. The Authority's expenditure budget is prepared on a comparable basis to GAAP, with the exception of debt service, which is budgeted in full when due, including principal and interest. Depreciation is not budgeted; depreciation is recorded as an expense for financial statement purposes. Certain other items are also not budgeted such as bad debt expense or (recovery) and loss (gain) on disposals of fixed assets or inventory.

##### **Budgetary Requirements**

After the U.S. Congress approves the budget, the operating and capital budgets are loaded into the Authority's financial management system, which prevents overspending without appropriate approvals. The Department of Finance, Accounting and Budget prepares monthly management reports for each operating unit, management staff, the Board of Directors, and its various committees. The reports are consistently reviewed each month to ensure the Authority complies with its authorized budget levels.