

**DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF  
NASHVILLE AND DAVIDSON COUNTY**

**AUDITED FINANCIAL STATEMENTS  
AND OTHER FINANCIAL INFORMATION**

**JUNE 30, 2017**

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

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Independent Auditor's Report

The Honorable Mayor and Members of Council  
The Metropolitan Government of Nashville and  
Davidson County, Tennessee

**Report on Financial Statements**

We have audited the accompanying financial statements of the Department of Water and Sewerage Services (the "Department"), an enterprise fund of The Metropolitan Government of Nashville and Davidson County, Tennessee (the "Metropolitan Government"), as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the Department's basic financial statements 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 accounting principles generally accepted in the United States of America; 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.

***Auditor's Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of 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 auditor's 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 Department of Water and Sewerage Services, an enterprise fund of the Metropolitan Government of Nashville and Davidson County, Tennessee, as of June 30, 2017, and the changes in its financial position and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

### ***Emphasis of Matter***

As discussed in Note A, the financial statements present only the Department of Water and Sewerage Services, an enterprise fund of the Metropolitan Government of Nashville and Davidson County, Tennessee, and do not purport to, and do not present fairly the financial position of the Metropolitan Government of Nashville and Davidson County, Tennessee, as of June 30, 2017, and changes in its financial position and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

### ***Other Matters***

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

Accounting principles generally accepted in the United States of America require that management's discussion and analysis, as listed in the table of contents, 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 audit 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 Department's basic financial statements. The Schedule of Utility Rates, Schedule of Number of Customers, Schedule of Unaccounted for Water, Schedule of Pledged Revenue Coverage and Schedule of Restricted Cash and Cash Equivalents are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Schedule of Restricted Cash and Cash Equivalents is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The Schedule of Utility Rates, Schedule of Number of Customers, Schedule of Unaccounted for Water, and Schedule of Pledged Revenue Coverage 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.

### **Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated October 31, 2017, on our consideration of the Department's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Department's internal control over financial reporting and compliance.

*Crosslin, PLLC*

Nashville, Tennessee  
October 31, 2017

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
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JUNE 30, 2017

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

Management of the Metropolitan Government of Nashville and Davidson County (the "Metropolitan Government"), Department of Water and Sewerage Services (the "Department") - (an enterprise fund of the Government), offer readers of the Department's financial statements this overview and analysis of the financial activities of the Department for the fiscal year ended June 30, 2017. This information should be read in conjunction with the Metropolitan Government audited financial statements.

**FINANCIAL HIGHLIGHTS**

The Department provides water and sewerage service to most of Davidson County, Tennessee, and small portions of the surrounding counties. It serves 204,177 water accounts and 206,543 sewer accounts. Activities are funded entirely from revenues generated from its operations, with no tax revenues from the Metropolitan Government. A covenant with the bondholders provides assurance that there will be adequate funds for necessary major repairs and replacement of facilities, by requiring revenues to equal at least 110% of the sum of the year's operating budget (exclusive of depreciation and certain other expenses) and the debt service on its outstanding revenue bonds. These monies, not required for normal operations, flow into the Extension and Replacement Fund to be used to finance the ongoing capital requirements of the Department, as supplemented with revenue bonds. Water rates were last increased on May 1 of 2009, 2010, and 2011 by 5% each year. Sewerage rates were last increased by 9% on May 1, 2009, by 8% on May 1, 2010, and by 7% on May 1, 2011.

At June 30, 2017, assets and deferred outflows of the Department were \$2.4 billion and exceeded liabilities and deferred inflows by \$1.3 billion (total net position). In 2017, increases in consumption and development positively affected operating revenues of \$218.4 million resulting in an increase of \$1 million as compared to 2016. For 2017, operating expenses were \$197.6, an increase of \$2.5 million from 2016 mainly caused by increases in personal expense and depreciation expense. Investment income decreased from \$1.2 million in 2016 to \$1.1 million in 2017. Capital grants and contributions increased by \$5.0 million to \$27.8 million in 2017. Because of the implementation and reporting requirements of GASB Statement 68 by Metropolitan Government and increased maintenance material costs, the Department ended 2017 \$2.8 million over its operating budget of \$119.2 million.

In 2017, unrestricted cash and cash equivalents decreased by approximately \$7.9 million to \$47.1 million, while restricted cash/cash equivalents increased by approximately \$30.8 million. For 2017, capital assets increased by approximately \$157.7 million, before depreciation of \$84.9 million, for a net increase of \$72.8 million. These assets were acquired using revenues of the Department, revenue bonds, commercial paper, grants, contributions, and cash. The Department had construction funds available at June 30, 2017, of approximately \$19.3 million and liabilities of approximately \$19.0 million for a net of \$.3 million, exclusive of the restricted cash and equivalents mentioned earlier in this paragraph.

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The Water System and the Sewer System have gradually been expanded and include: improvements financed by revenues; improvements resulting from capital contributions in aid of construction by private developers; all improvements, additions and extensions financed with the proceeds of outstanding bonds and governmental grants; and facilities acquired from the Nashville Suburban Utility District, the First Suburban Water Utility District of Davidson County, Tennessee, the Parkwood Service Company, the Joelton Water Utility District, the City of Lakewood sewerage system, Rayon City Water Company, the Cumberland Utility District, Old Hickory Utility District, and the sewerage service of the Nolensville/College Grove Utility District in Williamson County.

Under the Charter and Tennessee Code Annotated §7-3-302, the Metropolitan Government can assume and take over any water and/or sewer utility district located within its boundaries through ordinances adopted by the Metropolitan Council. Several such systems currently operate inside Davidson County and if a decision is made to consolidate these operations into the Department, the Metropolitan Government will take subject to or retire all debts and liabilities of the systems. The economic impact of such an assumption or takeover would be evaluated prior to the submission of any legislation to the Metropolitan Council. By contract dated February 1996, the Metropolitan Government has agreed not to take over the Harpeth Valley Utility District before February 2026.

Historically, the Department managed and partially funded the stormwater operations of the Metropolitan Government. In 2009, the Metropolitan Government established a Stormwater Division of the Department as a stand-alone enterprise fund with its own set of service fees, which are now an itemized part of the water bill. Further funding of stormwater operations will not be required of the Department.

In December 2005, the Department received an inquiry from United States Environmental Protection Agency (“EPA”), pertaining to the Department’s Operations, Capital Plan, and Stormwater Management. The Department’s response was submitted in January 2006. The Department, TDEC and EPA agreed on a recommended consent decree on March 12, 2009 (the “Consent Decree”) to address and correct deficiencies within the Department’s sewer system that have caused violations of the Clean Water Act (“CWA”). The original Consent Decree required that the Department fully develop, in two years, a Corrective Action Plan/Engineering Report (“CAP/ER”) for its separate sewer system and a Long Term Control Plan (“LTCP”) for its combined sewer system to achieve the goals of the CWA. Upon submittal and approval of the plans, the Department would have an additional nine years to complete the work as developed by the plans.

On May 14, 2010, Metro petitioned EPA and TDEC for a time extension for the delivery of both plans and the final compliance with the Consent Decree based on the flood of May 2010. EPA and TDEC granted the requested time extensions to the Department of Water and Sewerage Services. The Department met the current deadline for submittal of the CAP/ER and LTCP of September 11, 2011 and the deadline for final compliance with the Consent Decree is eleven years after the final approval of the plans by EPA and TDEC. On August 10, 2017, the EPA approved the CAP/ER and the timeline of eleven years to complete the work.

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Failure to comply with the Consent Decree and meet future established deadlines could result in penalties up to \$3,000 per occurrence, and up to \$5,000 per day for failure to implement work. The Department has thus far been successful in meeting all the deadlines established by the Consent Decree, and is currently in compliance with the Consent Decree in all respects.

**OVERVIEW OF THE FINANCIAL STATEMENTS**

This discussion and analysis is intended to serve as an introduction to the Department's basic financial statements. The Department's basic financial statements consist of the Statements of Net Position, the Statements of Revenue, Expenses, and Changes in Net Position and the Statements of Cash Flows. Data on these statements represent an enterprise fund of the Metropolitan Government as established by the master bond resolution and the Charter of the Metropolitan Government. These funds consist of the Revenue Fund, the Operating Fund, the Operating Reserve Fund, the Debt Service Fund, the Debt Service Reserve Fund, the Revolving Fund, and the Extension and Replacement Fund. All revenues of the Department are required to be used for the benefit of the ratepayers.

|   | Condensed Financial Information |                  |
|---|---------------------------------|------------------|
|   | as of June 30, 2017             |                  |
|   | 2017                            | 2016             |
| <b>Statements of Net Position</b>         |                                 |                  |
| Total current assets                      | \$ 146,211,207                  | \$ 143,864,943   |
| Total capital and other noncurrent assets | 2,224,434,406                   | 2,134,543,937    |
| Total assets                              | 2,370,645,613                   | 2,278,408,880    |
| Deferred charge on refunding              | 783,698                         | 1,064,486        |
| Pensions                                  | -                               | 12,646,716       |
| Total deferred outflows of resources      | 783,698                         | 13,711,202       |
| <br>                                      |                                 |                  |
| Total current liabilities                 | 341,764,432                     | 213,723,967      |
| Total noncurrent liabilities              | 717,506,711                     | 772,695,163      |
| Total Liabilities                         | 1,059,271,143                   | 986,419,130      |
| Pensions                                  | 6,426,471                       | 4,804,506        |
| Total deferred inflows of resources       | 6,426,471                       | 4,804,506        |
| <br>                                      |                                 |                  |
| Total Net Position                        | \$ 1,305,731,697                | \$ 1,300,896,446 |



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In 2017, current assets increased by \$2.3 million to \$146.2 million and current liabilities increased by \$128.0 million to \$341.8 million yielding a current ratio of 0.43. Capital assets, net of accumulated depreciation of \$1.3 billion, increased by \$72.3 million in 2017 to \$2.0 billion. These increases are from a combination of infrastructure deeded to the Department by developers, CWN projects, and the Department's efforts to maintain and improve the system.

The Department has an ongoing program to improve both the water and sewer infrastructure by cleaning and/or relining existing pipes, as well as replacing and extending facilities.

**Statements of Revenue, Expenses, and Changes in Net Position**

|   | Condensed Financial Information<br>as of June 30, 2017 |                  |
|---|--|------------------|
|   | 2017   | 2016             |
| Operating revenues  | \$ 218,400,714   | \$ 217,358,507   |
| Depreciation (expense)  | (84,931,446)   | (82,842,872)     |
| Other operating (expenses)                                      | (112,654,492)  | (112,207,776)    |
| Operating income  | 20,814,776   | 22,307,859       |
| Nonoperating revenues (expenses):                               |  |                  |
| Investment income   | 1,111,945  | 1,187,544        |
| Interest expense  | (32,809,016)   | (34,644,137)     |
| Other   | 451,502  | 476,776          |
| Capital grants and contributions                                | 27,846,202   | 22,769,848       |
| Transfers to other funds of the Metropolitan<br>Government, net | (12,580,158)   | (12,548,837)     |
| Change in net position  | 4,835,251  | (450,947)        |
| Net Position, beginning of year                                 | 1,300,896,446  | 1,301,347,393    |
| Net Position, end of year                                       | \$ 1,305,731,697                                       | \$ 1,300,896,446 |

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**CAPITAL ASSETS AND BONDS AND NOTES PAYABLE**

Capital Assets – The Department’s investment in capital assets as of June 30, 2017 is \$2.0 billion, which is an increase of 3.8% from the year ending June 30, 2016. Depreciation expense for FY 2017 totaled \$84.9 million.

|                                    | <u>June 30, 2017</u>    | <u>June 30, 2016</u>    |
|------------------------------------|-------------------------|-------------------------|
| Utility plant in service           | \$ 2,818,796,110        | \$ 2,727,868,400        |
| Land                               | 22,509,294              | 22,509,294              |
| Buildings and improvements         | 48,504,001              | 43,445,872              |
| Improvements other than buildings  | 56,427,769              | 53,186,799              |
| Furniture, machinery and equipment | 109,937,442             | 84,429,234              |
| Construction work in progress      | 255,128,951             | 222,181,863             |
| Less accumulated depreciation      | <u>(1,313,370,544)</u>  | <u>(1,228,452,486)</u>  |
|                                    | <u>\$ 1,997,933,023</u> | <u>\$ 1,925,168,976</u> |

During the year ending June 30, 2017, utility plant in service increased \$90.9 million to \$2.8 billion and construction work in progress increased \$32.9 million to \$255.1 million. The primary reason for the increase in utility plant in service and construction work in process was the completion and start of multiple large projects.

Additional information on the Department’s capital assets can be found in Note C beginning on page 24 of this report.

Bonds and Notes Payable – At June 30, 2017, the Department had total outstanding bond debt, including deferred charges/premiums, net, of \$749.6 million. The revenues of the Department collateralized all bond debt.

|                                  | <u>June 30, 2017</u>  | <u>June 30, 2016</u>  |
|----------------------------------|-----------------------|-----------------------|
| Revenue bonds payable            | \$ 716,115,000        | \$ 744,910,000        |
| Deferred charges / premiums, net | <u>33,474,280</u>     | <u>39,103,162</u>     |
| Total                            | <u>\$ 749,589,280</u> | <u>\$ 784,013,162</u> |

Additional information on the Department’s bonds and note payable can be found in Note D beginning on page 25 of this report.

Commercial Paper – In April 2015, the Metropolitan Government instituted a Water and Sewer revenue bond commercial paper program of \$300 million to provide interim and short-term financing for various authorized capital projects of the Department. There was \$250 million outstanding commercial paper under the Water and Sewer program at June 30, 2017.

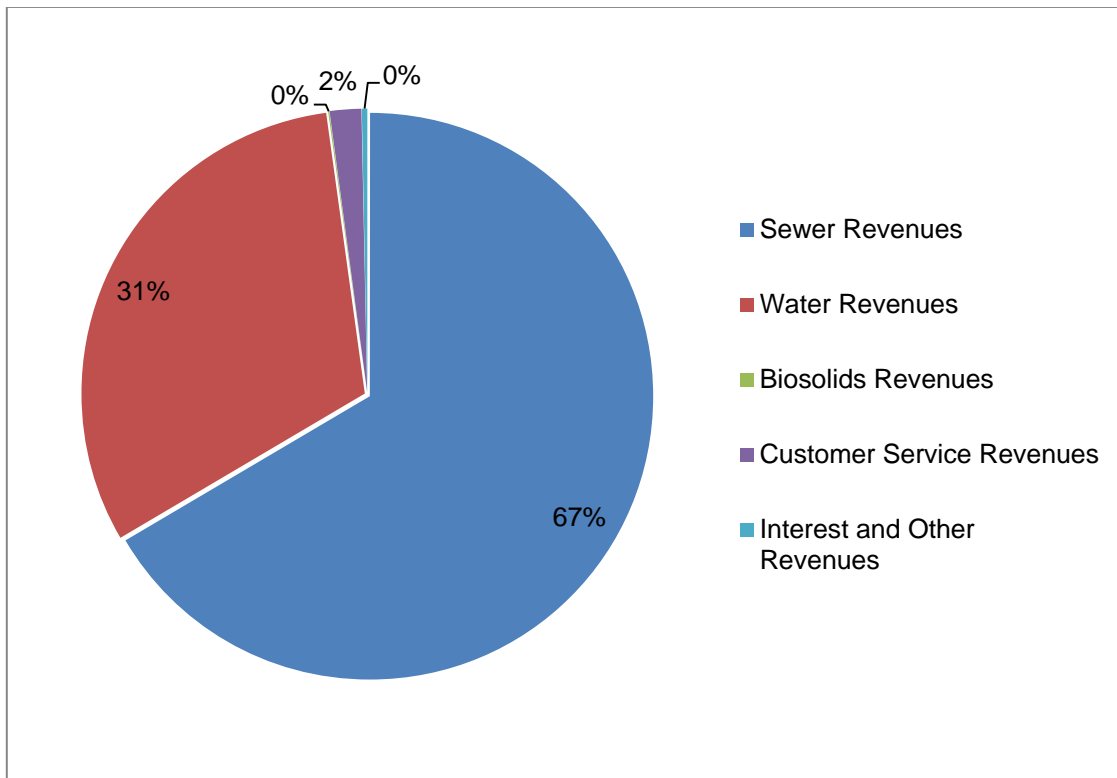
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JUNE 30, 2017

**OTHER INFORMATION**

Sources of Revenues

The Department collects its primary revenues from charges for water and sewerage services provided to customers. In addition, these revenues are invested to earn interest. Customers are charged fees (Customer Service Revenue) to establish service, for late payment and for insufficient funds checks. The Department also charges a fee to tap onto the water system, a similar fee to connect to the sewerage system and a sewer capacity fee. These sources are illustrated on the chart below as a percentage of total revenues:

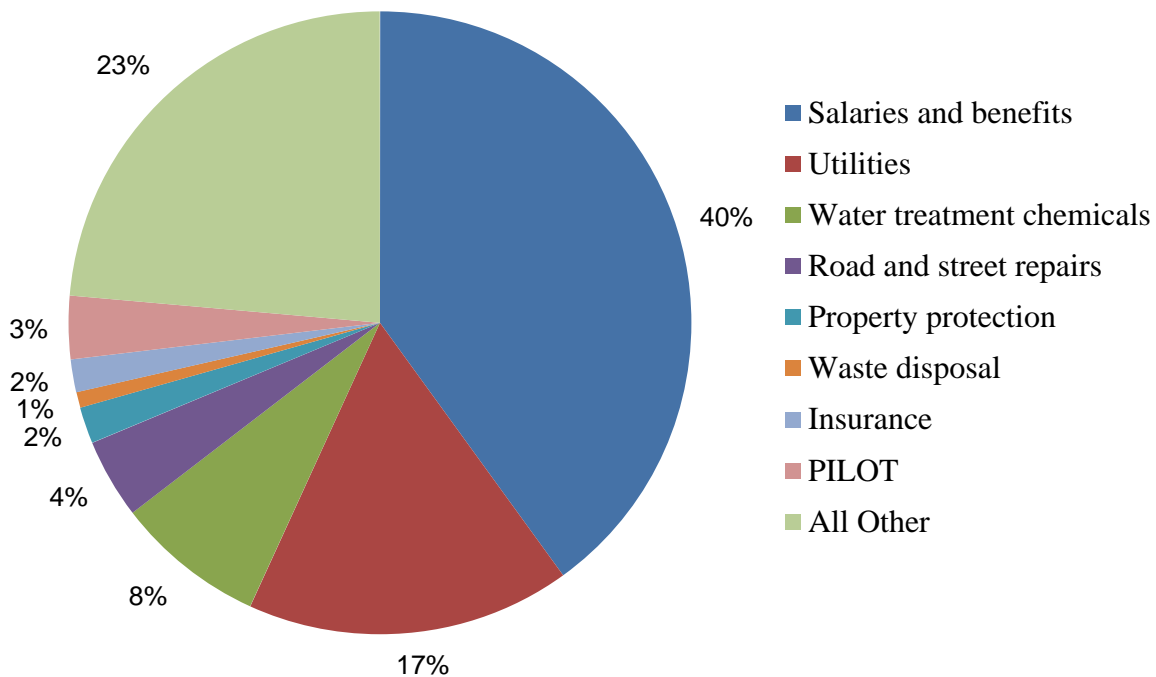


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THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

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Major Expenses

In addition to the salaries and benefits of its employees, the major expenses incurred by the Department include electricity, payment in lieu of taxes to the Metropolitan Government (PILOT), water treatment chemicals, biosolids disposal, insurance, and property protection. Other expenses include the materials, supplies, and outside labor to maintain the system. These expense categories are charted below as a percentage of total operating expenses, excluding Depreciation, and Amortization:



**REQUESTS FOR INFORMATION**

This financial report is designed to provide a general overview of the Department's finances for citizens, taxpayers, customers, investors, creditors and all others with an interest in the Department's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Metropolitan Government of Nashville and Davidson County, Department of Finance, Division of Accounts, <mailto:cafr@nashville.gov>.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
STATEMENT OF NET POSITION  
JUNE 30, 2017

ASSETS:

Current assets:

|  |               |
|--|---------------|
| Cash and cash equivalents              | \$ 47,145,280 |
| Accounts receivable                    | 18,779,385    |
| Allowance for doubtful accounts        | ( 2,061,134)  |
| Accrued interest receivable            | 120,592       |
| Due from other funds of the Government | 2,225,805     |
| Due from component units               | 8,950         |
| Inventories of supplies                | 3,017,410     |
| Other current assets                   | 1,000         |

Restricted Assets:

|  |                    |
|--|--------------------|
| Cash and cash equivalents              | 57,350,217         |
| Accounts receivable                    | 82,881             |
| Accrued interest receivable            | 207,390            |
| Due from other funds of the Government | 19,316,275         |
| Other current assets                   | 17,156             |
| Total current assets                   | <u>146,211,207</u> |

Capital and other noncurrent assets:

Capital assets:

|                                    |                        |
|------------------------------------|------------------------|
| Utility plant in service           | 2,818,796,110          |
| Land                               | 22,509,294             |
| Buildings and improvements         | 48,504,001             |
| Improvements other than buildings  | 56,427,769             |
| Furniture, machinery and equipment | 109,937,442            |
| Construction in progress           | 255,128,951            |
| Less accumulated depreciation      | <u>(1,313,370,544)</u> |
| Capital assets, net                | 1,997,933,023          |

Restricted assets:

|                           |                   |
|---------------------------|-------------------|
| Cash and cash equivalents | 180,075,069       |
| Other noncurrent assets   | <u>46,426,314</u> |

Total noncurrent assets 2,224,434,406

Total assets 2,370,645,613

DEFERRED OUTFLOWS OF RESOURCES:

|                                      |                |
|--------------------------------------|----------------|
| Deferred charge on refunding         | <u>783,698</u> |
| Total deferred outflows of resources | <u>783,698</u> |

See accompanying notes to financial statements.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
STATEMENT OF NET POSITION - Continued  
JUNE 30, 2017

LIABILITIES:

Current liabilities:

|                                      |              |
|--------------------------------------|--------------|
| Accounts payable                     | \$ 4,814,875 |
| Accrued payroll                      | 2,134,783    |
| Due to other funds of the Government | 2,324,964    |
| Customer deposits                    | 3,163,284    |
| Other current liabilities            | 3,782,649    |

Liabilities payable from restricted assets:

|                                   |                    |
|-----------------------------------|--------------------|
| Accounts payable                  | 19,037,629         |
| Accrued interest                  | 19,031,248         |
| Current portion of long-term debt | 37,475,000         |
| Commercial paper payable          | <u>250,000,000</u> |

Total current liabilities 341,764,432

Noncurrent liabilities:

|                              |                      |
|------------------------------|----------------------|
| Revenue bonds, net           | 712,114,280          |
| Pension liability, net       | <u>5,392,431</u>     |
| Total noncurrent liabilities | <u>717,506,711</u>   |
| Total liabilities            | <u>1,059,271,143</u> |

DEFERRED INFLOWS OF RESOURCES

|                                     |                  |
|-------------------------------------|------------------|
| Pensions                            | <u>6,426,471</u> |
| Total deferred inflows of resources | <u>6,426,471</u> |

NET POSITION:

|                                  |                   |
|----------------------------------|-------------------|
| Net investment in capital assets | 1,177,147,697     |
| Restricted for debt retirement   | 85,956,127        |
| Unrestricted                     | <u>42,627,873</u> |

Total net position \$1,305,731,697

See accompanying notes to financial statements.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
STATEMENT OF REVENUE, EXPENSES AND CHANGES IN NET POSITION  
YEAR ENDED JUNE 30, 2017

|  |                         |
|--|-------------------------|
| Operating revenues:  |                         |
| Charges for services                                       | \$ 217,723,961          |
| Other  | <u>676,753</u>          |
| Total operating revenues                                   | <u>218,400,714</u>      |
| Operating expenses:  |                         |
| Personal services  | 49,916,849              |
| Contractual services                                       | 42,018,328              |
| Supplies and materials                                     | 16,752,678              |
| Depreciation   | 84,931,446              |
| Other  | <u>3,966,637</u>        |
| Total operating expenses                                   | <u>197,585,938</u>      |
| Operating income   | <u>20,814,776</u>       |
| Nonoperating revenue (expense):                            |                         |
| Investment income  | 1,111,945               |
| Interest expense   | ( 32,809,016)           |
| Gain on sale of capital assets                             | 35,979                  |
| Other  | <u>415,523</u>          |
| Nonoperating expense, net                                  | <u>( 31,245,569)</u>    |
| Loss before capital grants and contributions and transfers | <u>( 10,430,793)</u>    |
| Capital grants and contributions                           | 27,846,202              |
| Transfers to other funds of the Government                 | <u>( 12,580,158)</u>    |
| Change in net position                                     | 4,835,251               |
| Net position, beginning of year                            | <u>1,300,896,446</u>    |
| Net position, end of year                                  | <u>\$ 1,305,731,697</u> |

See accompanying notes to financial statements.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
STATEMENT OF CASH FLOWS  
YEAR ENDED JUNE 30, 2017

|   |                       |
|---|-----------------------|
| Cash flows from operating activities:                     |                       |
| Receipts from customers and users                         | \$ 217,085,651        |
| Payments to suppliers                                     | ( 64,138,565)         |
| Payments to employees                                     | ( 47,453,688)         |
| Other payments  | <u>( 3,990,535)</u>   |
| Net cash provided by operating activities                 | <u>101,502,863</u>    |
| Cash flows from noncapital financing activities:          |                       |
| Transfers to other funds of the Government                | <u>( 12,580,158)</u>  |
| Net cash used in noncapital financing activities          | <u>( 12,580,158)</u>  |
| Cash flows from capital and related financing activities: |                       |
| Acquisition of capital assets                             | (139,307,641)         |
| Proceeds from the sale of capital assets                  | 35,979                |
| Proceeds from borrowings                                  | 125,000,000           |
| Principal payments on borrowings                          | ( 28,795,000)         |
| Interest subsidy  | 4,968,210             |
| Interest paid   | ( 40,211,581)         |
| Capital contributions received                            | <u>11,338,556</u>     |
| Net cash used in capital and related financing activities | <u>( 66,971,477)</u>  |
| Cash flows from investing activities:                     |                       |
| Interest received   | <u>1,006,809</u>      |
| Net cash provided by investing activities                 | <u>1,006,809</u>      |
| Net change in cash and cash equivalents                   | 22,958,037            |
| Cash and cash equivalents at beginning of year            | <u>261,612,529</u>    |
| Cash and cash equivalents at end of year                  | <u>\$ 284,570,566</u> |
| Cash and cash equivalents are classified as:              |                       |
| Current assets  | \$ 47,145,280         |
| Current restricted assets                                 | 57,350,217            |
| Noncurrent restricted assets                              | <u>180,075,069</u>    |
|   | <u>\$ 284,570,566</u> |

See accompanying notes to financial statements.



DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
STATEMENT OF CASH FLOWS - Continued  
YEAR ENDED JUNE 30, 2017

Reconciliation of operating income to net cash  
provided by operating activities:

|  |                       |
|--|-----------------------|
| Operating income   | <u>\$ 20,814,776</u>  |
| Adjustments to reconcile operating income<br>to net cash provided by operating activities:           |                       |
| Depreciation   | 84,931,446            |
| Bad debt expense   | ( 145,000)            |
| Other receipts   | 415,523               |
| Changes in assets, deferred outflows of resources, liabilities<br>and deferred inflows of resources: |                       |
| Accounts receivable  | ( 210,723)            |
| Due from other funds of the Government   | ( 1,744,964)          |
| Due from component units   | 173                   |
| Inventories of supplies  | 191,283               |
| Other current assets   | 18,304                |
| Deferred outflows pensions   | 12,646,716            |
| Accounts payable   | ( 5,558,842)          |
| Accrued payroll  | 279,050               |
| Due to other funds of the Government   | 842,627               |
| Customer deposits  | ( 282,587)            |
| Other current liabilities  | ( 232,314)            |
| Net pension liability  | ( 12,084,570)         |
| Deferred inflows pensions  | <u>1,621,965</u>      |
| Total adjustments  | <u>80,688,087</u>     |
| Net cash provided by operating activities  | <u>\$ 101,502,863</u> |
| Supplemental disclosure of non-cash items:   |                       |
| Contributions of capital assets  | <u>\$ 17,020,850</u>  |

See accompanying notes to financial statements.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

A. SUMMARY SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements encompass the financial activities of the Department of Water and Sewerage Services (the “Department”). The Department is an enterprise fund of The Metropolitan Government of Nashville and Davidson County, Tennessee (the “Metropolitan Government”) and, accordingly, is included in the basic financial statements of the Metropolitan Government. The accompanying financial statements do not purport to present fairly the financial position of The Metropolitan Government of Nashville and Davidson County, Tennessee and changes in its financial position and its cash flows. The Department provides water and sewerage services to customers in the Metropolitan Nashville area on a self-support basis utilizing a rate structure designed to produce revenues sufficient to fund debt service requirements and operating expenses and maintain adequate working capital.

Basis of Accounting

The financial statements are presented using the economic resources measurement focus and the accrual basis of accounting in conformity with accounting principles generally accepted in the United States of America. The Department applies all relevant Government Accounting Standards Board (“GASB”) pronouncements.

Estimates

Estimates used in the preparation of financial statements require management to make assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents

Cash and cash equivalents include amounts in demand deposits and highly liquid short-term investments with maturity dates within three months of the date of acquisition. The Department participates in the centrally managed cash and investment pool of the Metropolitan Government, under which the Metropolitan Government remits payments on behalf of the Department. Investment income earned on funds invested in pooled accounts is allocated to the Department by the Metropolitan Government on the basis of relative balances.

Inventories

Inventories, principally materials, supplies and replacement parts, are valued at the lower of cost (average cost method) or market. Inventory items are recorded as expenditures when used under the consumption method.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

A. SUMMARY SIGNIFICANT ACCOUNTING POLICIES - Continued

Capital Assets

Utility plant acquired prior to July 31, 1952, is stated at the estimated cost at that date, as determined by independent engineers, with subsequent additions recorded at cost. Net interest expense incurred during the construction of plant and equipment is capitalized as part of the cost of the related asset. The Department capitalized interest totaling \$1,367,002 for the year ended June 30, 2017. Capital assets are generally defined as assets with an individual cost in excess of \$10,000 and a useful life in excess of one year. Depreciation is provided on the straight-line method over the estimated useful lives of the respective assets. The estimated useful lives are as follows:

|                                   |                |
|-----------------------------------|----------------|
| Utility plant in service          | 7 - 100 years  |
| Building and improvements         | 3 - 50 years   |
| Improvements other than buildings | 20 - 100 years |
| Machinery and equipment           | 3 - 50 years   |

The Department closes completed construction projects to capital assets upon beneficial use.

Bond Premiums and Discounts

Bond premiums and discounts are deferred and amortized on a straight-line basis over the term of the related bond issue.

Compensated Absences

General policy of the Metropolitan Civil Service Commission permits the accumulation, within certain limitations, of unused vacation days and sick leave. Vacation days may accumulate to an amount equal to three times the current vacation accrual rate. Accumulated unpaid vacation pay is recorded as a liability by the Department. Although sick pay may accumulate, no amounts are vested in the event of employee termination; therefore, no liability for sick pay has been accrued.

Restricted Assets

Restricted assets represent amounts which are required to be maintained pursuant to Department bond resolutions relating to bonded indebtedness (construction and sinking funds) and funds received for specific purposes pursuant to U.S. Government grants (related primarily to construction projects).

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

A. SUMMARY SIGNIFICANT ACCOUNTING POLICIES - Continued

Deferred outflows of resources

In addition to assets, the Statement of Net Position reports a separate section for deferred outflows of resources. *Deferred outflows of resources* represent a consumption of net position that applies to a future period and so will not be recognized as an outflow of resource (expense) until then. The Department has one item that qualifies for reporting in this category. The *deferred charge on refunding* results from the difference in the carrying value of refunded debt and its reacquisition price. The amount is deferred and amortized over the shorter of the life of the refunded or refunding debt.

Operating and Nonoperating Revenues and Expenses

Operating revenues and expenses generally result from providing services and providing and delivering goods and services in connection with the Department's principal ongoing operations and consist primarily of charges to customers or departments, cost of sales and services, administrative expense, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses. When both restricted and unrestricted resources are available for use, it is the Department's policy to use restricted resources first and then unrestricted resources, as they are needed.

Capital Grants and Contributions

Capital grants and contributions include funds received from federal and state agencies for certain sewer projects by the Department, contributions from local governments and other sources, tap and capacity fees, and deeds of conveyance. Utility plant contributed is recorded/presented in accordance with the provisions of GASB Statement No. 33, *Accounting and Financial Reporting for Non-exchange Transactions* and GASB Statement No. 34, *Basic Financial Statements and Management's Discussion and Analysis' for State and Local Governments*. These statements require that capital contributions be reported in the statement of revenue, expenses and changes in net assets as a separate line item after non-operating revenues and expenses, rather than as direct additions to contributed capital, as under previous standards.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

A. SUMMARY SIGNIFICANT ACCOUNTING POLICIES - Continued

Impairment of Long-Lived Assets

The carrying value of long-lived assets held and used are reviewed whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. For purpose of evaluating the recoverability of long-lived assets, the recoverability test is performed using undiscounted net cash flows before consideration of interest expense. Should the sum of the expected future net cash flows be less than the carrying value of the asset being evaluated, an impairment loss would be recognized. The evaluation of asset impairment requires the Department to make assumptions about future cash flows over the life of the asset being evaluated. Assets to be disposed of are reported at the lower of their carrying amount or fair value less costs to sell, and are no longer depreciated. No impairment loss was considered necessary during fiscal year 2017.

Deferred inflows of resources

In addition to liabilities, the Statement of Net Position reports a separate section for deferred inflows of resources. *Deferred inflows of resources* represent an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resource (revenue) until that time. The amount for *pensions* relates to certain differences between projected and actual actuarial results and certain differences between projected and actual investment earnings.

Revenue Recognition

Revenues from services provided by the Department are recognized from meters read on a monthly cycle basis. At the end of each month, services rendered from the latest date of each meter-reading cycle to month end is accrued and included as accounts receivable, net of an estimated allowance for uncollectible accounts.

Net Position

The Department's net position classifications are as follows:

- Net investment in capital assets - This component of net position consists of capital assets, net of accumulated depreciation and reduced by the outstanding balances of any debt and deferred inflows of resources attributable to the acquisition, construction, or improvement of those assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds is not included in the calculation of net investment in capital assets. Rather, that portion of the debt is included in the same net positions component as the unspent proceeds.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

A. SUMMARY SIGNIFICANT ACCOUNTING POLICIES - Continued

- Restricted - This component consists of net position restricted by grantors, contributors, or laws and regulations of other governments and restrictions imposed by law or through constitutional provisions or enabling legislation, reduced by liabilities and deferred inflows of resources related to those assets.
  
- Unrestricted - This component consists of net position that do not meet the definition of "restricted" or "net investment in capital assets."

Accounting Pronouncements

The Department adopted GASB Statement No. 73, *Accounting and Financial Reporting for Pension and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*, required for fiscal periods beginning after June 15, 2015 and 2016, in fiscal 2016 and 2017, respectively. This Statement improves the usefulness of information about pensions included in the general purpose external financial reports of state and local governments for making decisions and assessing accountability.

The Department adopted GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, required for fiscal periods beginning after June 15, 2016, in fiscal 2017. This Statement improves the usefulness of information about postemployment benefits other than pensions (other postemployment benefits or OPEB) included in the general purpose external financial reports of state and local governmental OPEB plans for making decisions and assessing accountability.

The Department plans to adopt GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, required for fiscal periods beginning after June 15, 2017, in fiscal 2018. This Statement improves accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB).

The Department adopted GASB Statement No. 78, *Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans*, required for fiscal periods beginning after December 15, 2015, in fiscal 2017. This Statement amends the scope and applicability of Statement No. 68 regarding pensions provided to employees of state and local government employers through certain cost-sharing multiple-employer defined benefit pension plans.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

A. SUMMARY SIGNIFICANT ACCOUNTING POLICIES - Continued

The Department adopted GASB Statement No. 79, *Certain Eternal Investment Pools and Pool Participants*, required for fiscal periods beginning after June 15, 2015, except for certain provisions effective for fiscal periods beginning after December 15, 2015, in fiscal 2016 and 2017, respectively. This Statement addresses accounting and financial reporting for certain external investment pools and pool participants.

The Government adopted GASB Statement No. 80, *Blending Requirements for Certain Component Units - an amendment of GASB Statement No. 14*, required for fiscal periods beginning after June 15, 2016, in fiscal 2017. This Statement improves financial reporting by clarifying the financial statement presentation requirements component units.

The Department plans to adopt GASB Statement No. 81, *Irrevocable Split-Interest Agreements*, required for fiscal periods beginning after December 15, 2016, in fiscal 2018. This Statement improves accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for situations in which a government is a beneficiary of the agreement.

The Department adopted or plans to adopt GASB Statement No. 82, *Pension Issues*, required for fiscal periods beginning after June 15, 2016, except for certain provisions effective for fiscal periods beginning after June 15, 2017, in fiscal 2017 and 2018. This Statement improves financial reporting by enhancing consistency in the application of financial reporting requirements to certain pension issues.

The Government plans to adopt GASB Statement No. 83, *Certain Asset Retirement Obligations*, required for fiscal periods beginning after June 15, 2018, in fiscal 2019. This Statement enhances comparability of financial statements among governments by establishing uniform criteria for recognizing and measuring certain asset retirement obligations (ARO's) and enhances the usefulness of information by requiring disclosures related to ARO's.

The Government plans to adopt GASB Statement No. 84, *Fiduciary Activities*, required for fiscal periods beginning after December 15, 2018, in fiscal 2020. This Statement enhances consistency and comparability by establishing specific criteria for identifying activities that should be reported as fiduciary activities and clarifying whether and how business-type activities should report their fiduciary activities.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

A. SUMMARY SIGNIFICANT ACCOUNTING POLICIES - Continued

The Government plans to adopt GASB Statement No. 85, *Omnibus 2017*, required for fiscal periods beginning after June 15, 2017, in fiscal 2018. This Statement enhances consistency in the application of accounting and financial reporting requirements.

The Government plans to adopt GASB Statement No. 86, *Certain Debt Extinguishment Issues*, required for fiscal periods beginning after June 15, 2017, in fiscal 2018. This Statement enhances consistency in accounting and financial reporting for debt extinguishments by establishing uniform guidance for derecognizing debt that is defeased in substance, enhances consistency in financial reporting of prepaid insurance related to extinguished debt, and enhances the usefulness of information in notes to financial statements regarded defeased debt.

The Government plans to adopt GASB Statement No. 87, *Leases*, required for fiscal periods beginning after December 15, 2019, in fiscal 2021. This Statement increases the usefulness of financial statements by requiring reporting of certain lease liabilities that currently are not reported, enhances comparability by requiring lessees and lessors to report leases under a single model, and enhances the usefulness of information by requiring notes to the financial statements regarding leasing arrangements.

Unless otherwise noted, management is in the process of determining the effects that the adoption of these Statements will have on the Department's financial statements.

B. CASH AND CASH EQUIVALENTS

Deposit Policy

The Department is authorized by policy to invest funds that are not immediately needed in: United States Treasury Bills, Bonds and Notes; the State of Tennessee Local Government Investment Pool; bonds issued by the Government; bonds of commercial entities; and other investments such as repurchase agreements and commercial paper. The Department is authorized to invest in these instruments either directly or through the Metro Investment Pool.



DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

B. CASH AND CASH EQUIVALENTS - Continued

Deposits in financial institutions are required by State statute to be secured and collateralized by the institutions. The collateral must meet certain requirements and must have a total minimum market value of 105% of the value of the deposits placed in the institutions, less the amount protected by federal depository insurance. Collateral requirements are not applicable for financial institutions that participate in the State of Tennessee's collateral pool. As of June 30, 2017, most of the Department's deposits were held by financial institutions, which participate in the bank collateral pool administered by the Treasurer of the State of Tennessee or in the State of Tennessee Local Government Investment Pool. Participating banks determine the aggregated balance of their public fund accounts for the Department. The amount of collateral required to secure these public deposits must be at least 105% of the average daily balance of public deposits held. Collateral securities required to be pledged by the participating banks to protect their public fund accounts are pledged to the State Treasurer on behalf of the bank collateral pool. The securities pledged to protect these accounts are pledged in the aggregate rather than against each individual account. The members of the pool may be required by agreement to pay an assessment to cover any deficiency. Under this additional assessment agreement, public fund accounts covered by the pool are considered to be insured for purposes of credit risk disclosure.

The carrying amount of the cash and cash equivalents totaled \$284,570,566, and the corresponding bank balance was \$283,027,530. The difference between the carrying amounts of cash and cash equivalents and the corresponding bank balances is due primarily to outstanding checks and deposits in transit. The entire balance of cash and cash equivalents was covered by the State collateral pool, federal depository insurance or collateralized with securities held by the government's agent in the government's name.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

C. CAPITAL ASSETS

The following summarizes the changes in capital assets during the year ended June 30, 2017.

|                                    | <u>Balance</u><br><u>July 1, 2016</u> | <u>Increases</u>     | <u>Decreases</u>     | <u>Balance</u><br><u>June 30, 2017</u> |
|------------------------------------|---------------------------------------|----------------------|----------------------|--|
| Depreciable assets:                |                                       |                      |                      |  |
| Utility plant in service           | \$2,727,868,400                       | \$ 90,927,710        | \$ -                 | \$2,818,796,110                        |
| Buildings and improvements         | 43,445,872                            | 5,058,129            | -                    | 48,504,001                             |
| Improvements other than buildings  | 53,186,799                            | 3,240,970            | -                    | 56,427,769                             |
| Furniture, machinery and equipment | <u>84,429,234</u>                     | <u>25,521,596</u>    | <u>13,388</u>        | <u>109,937,442</u>                     |
| Total depreciable assets           | <u>2,908,930,305</u>                  | <u>124,748,405</u>   | <u>13,388</u>        | <u>3,033,665,322</u>                   |
| Nondepreciable assets:             |                                       |                      |                      |  |
| Land                               | 22,509,294                            | -                    | -                    | 22,509,294                             |
| Construction in progress           | <u>222,181,863</u>                    | <u>138,503,561</u>   | <u>105,556,473</u>   | <u>255,128,951</u>                     |
| Total nondepreciable assets        | <u>244,691,157</u>                    | <u>138,503,561</u>   | <u>105,556,473</u>   | <u>277,638,245</u>                     |
| Total at historical cost           | <u>3,153,621,462</u>                  | <u>263,251,966</u>   | <u>105,569,861</u>   | <u>3,311,303,567</u>                   |
| Less accumulated depreciation for: |                                       |                      |                      |  |
| Utility plant in service           | 1,119,040,026                         | 75,683,521           | -                    | 1,194,723,547                          |
| Buildings and improvements         | 31,330,913                            | 1,161,698            | -                    | 32,492,611                             |
| Improvements other than buildings  | 37,499,354                            | 1,653,612            | -                    | 39,152,966                             |
| Furniture, machinery and equipment | <u>40,582,193</u>                     | <u>6,432,615</u>     | <u>13,388</u>        | <u>47,001,420</u>                      |
| Total accumulated depreciation     | <u>1,228,452,486</u>                  | <u>84,931,446</u>    | <u>13,388</u>        | <u>1,313,370,544</u>                   |
| Capital assets, net                | <u>\$1,925,168,976</u>                | <u>\$178,320,520</u> | <u>\$105,556,473</u> | <u>\$1,997,933,023</u>                 |

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
 THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
 NOTES TO FINANCIAL STATEMENTS  
 JUNE 30, 2017

D. BONDS, NOTES AND OTHER OBLIGATIONS

Transaction Summary

Bonds, notes and other obligations activity for the year ended June 30, 2017 was as follows:

|                                    | <u>Balance</u><br><u>July 1, 2016</u> | <u>Additions</u>    | <u>Reductions</u>     | <u>Balance</u><br><u>June 30, 2017</u> | <u>Due Within</u><br><u>One Year</u> |
|------------------------------------|---------------------------------------|---------------------|-----------------------|--|--------------------------------------|
| Revenue bonds payable              | \$744,910,000                         | \$ -                | \$(28,795,000)        | \$716,115,000                          | \$37,475,000                         |
| Deferred charges/<br>premiums, net | 39,103,162                            | -                   | ( 5,628,882)          | 33,474,280                             | -                                    |
| Net pension liability              | <u>17,477,001</u>                     | <u>17,939,732</u>   | <u>(30,024,302)</u>   | <u>5,392,431</u>                       | <u>-</u>                             |
| Total                              | <u>\$801,490,163</u>                  | <u>\$17,939,732</u> | <u>\$(64,448,184)</u> | <u>\$754,981,711</u>                   | <u>\$37,475,000</u>                  |

Description of Amounts Payable

Amounts payable at June 30, 2017 are as follows:

|   | <u>Interest Rate</u> | <u>Amount</u> |
|---|----------------------|---------------|
| Revenue bonds payable:  |                      |               |
| Department of Water and Sewerage Revenue Refunding<br>Bonds, Series 2008A, due in varying amounts to<br>January 1, 2022 | 3.25 - 5.25%         | \$71,840,000  |
| Department of Water and Sewerage Revenue Refunding<br>Bonds, Series 2010A, due in varying amounts to<br>July 1, 2027    | 3.00 - 5.00%         | 76,530,000    |

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

D. BONDS, NOTES AND OTHER OBLIGATIONS - Continued

Description of Amounts Payable - Continued

|   | <u>Interest Rate</u> | <u>Amount</u>        |
|---|----------------------|----------------------|
| Department of Water and Sewerage Revenue Bonds,<br>Federally Taxable (BAB's), Series 2010B, due in<br>varying amounts to July 1, 2037   | 6.393 - 6.568%       | \$135,000,000        |
| Department of Water and Sewerage Revenue Bonds,<br>Federally Taxable, Series 2010C, due in varying<br>amounts to July 1, 2041           | 6.693%               | 75,000,000           |
| Department of Water and Sewerage Revenue Refunding<br>Bonds, Federally Taxable, Series 2010D, due in<br>varying amounts to July 1, 2018 | 4.255 - 4.791%       | 7,610,000            |
| Department of Water and Sewerage Revenue Refunding<br>Bonds, Series 2012, due in varying amounts to July 1, 2023                        | 1.00 - 5.00%         | 112,205,000          |
| Department of Water and Sewerage Revenue Refunding<br>Bonds, Series 2013, due in varying amounts to July 1, 2033                        | 3.00 - 5.00%         | 237,930,000          |
| Deferred premium (discount)   |                      | <u>33,474,280</u>    |
| Total revenue bonds payable   |                      | 749,589,280          |
| Net pension liability   |                      | <u>5,392,431</u>     |
| Total   |                      | <u>\$754,981,711</u> |

The bonds, notes, and other obligations are classified in the Statement of Net Position as follows:

|   |                      |
|---|----------------------|
| Current liabilities:                        |                      |
| Liabilities payable from restricted assets: |                      |
| Current portion of long-term liabilities    | \$ 37,475,000        |
| Noncurrent liabilities:                     |                      |
| Due in more than one year                   | <u>717,506,711</u>   |
| Total                                       | <u>\$754,981,711</u> |

Collateral

All bonds are collateralized by the revenues of the Department.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

D. BONDS, NOTES AND OTHER OBLIGATIONS - Continued

Bond Covenants

The various revenue bond indentures contain significant limitations and restrictions on annual debt service requirements, maintenance of a flow of monies through various restricted accounts, minimum amounts to be maintained in various sinking funds, and minimum revenue bond coverages. As of June 30, 2017, the Department believes it is in compliance with all financial limitations and restrictions.

Annual Debt Service Requirements

The annual requirements to amortize all revenue bonds outstanding as of June 30, 2017 are as follows:

| <u>Year Ending June 30,</u> | <u>Revenue Bonds</u> |                      |
|-----------------------------|----------------------|----------------------|
|                             | <u>Principal</u>     | <u>Interest</u>      |
| 2018                        | \$ 37,475,000        | \$ 37,476,030        |
| 2019                        | 38,225,000           | 35,654,524           |
| 2020                        | 39,120,000           | 33,743,634           |
| 2021                        | 40,180,000           | 31,823,496           |
| 2022                        | 40,985,000           | 29,812,021           |
| 2023 - 2027                 | 104,225,000          | 128,300,119          |
| 2028 - 2032                 | 100,370,000          | 103,924,994          |
| 2033 - 2037                 | 125,540,000          | 71,268,178           |
| 2038 - 2042                 | 156,770,000          | 29,878,694           |
| 2043 - 2045                 | <u>33,225,000</u>    | <u>1,342,300</u>     |
|                             | 716,115,000          | 503,223,990          |
| Deferred premium/(discount) | <u>33,474,280</u>    | <u>-</u>             |
| Total                       | <u>\$749,589,280</u> | <u>\$503,223,990</u> |

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
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D. BONDS, NOTES AND OTHER OBLIGATIONS - Continued

Commercial Paper

In April 2015, the Department established a \$200 million commercial paper program. The program allows the Department to issue short-term notes to finance water and sewer capital projects, until long-term bonds can be issued to provide permanent project financing. As notes mature (prior to the issuance of the long-term bonds), new notes are issued to repay the maturing notes. If market conditions are such that new notes cannot be issued, the bank has agreed to pay the principal amount of any maturing commercial paper notes pursuant to a revolving credit agreement. If the bank advances funds pursuant to the revolving credit agreement, the Department has 180 days within which to reimburse the bank, either from the proceeds of a new commercial paper note issue, the proceeds of long-term bonds or funds of the Department. If the Department cannot reimburse the bank within 180 days, the bank advance converts to a term loan, payable in equal semi-annual installments of principal over three years. The Department may at any time prepay the term loan from the proceeds of a new commercial paper note issue or long-term bonds. In October 2015, the revolving credit agreement was replaced by a letter-of-credit and reimbursement agreement (LOC). The par amount of the commercial paper program was also reduced from \$200 million to \$183 million, the payment of which is now supported by the LOC on substantially the same terms as the revolving credit agreement as described above.

In April 2015, the Department began a \$100 million Extendable Commercial Paper (ECP) program. The ECP dealer issues commercial paper notes with original maturities of 1 to 90 days. If the ECP dealer was ever unable to market notes in the amount needed to pay the maturing notes, the Department could extend the original maturity date to 270 days from the original date of issue. During this period long-term financing would be arranged to pay the notes at maturity. The combined programs total \$300 million of commercial paper notes available for short term capital financing.

Revenue commercial paper is issued as federally tax-exempt notes. The commercial paper is sold at par as interest-bearing obligations in minimum denominations of \$100,000 with interest payable at maturity. The commercial paper has varying maturities not to exceed 270 days, and all rollover commercial paper will not have a final maturity more than two years from the initial dates of issuance. The State has waived the two-year final maturity limitation and approved a final maturity not to exceed six years. Interest rates vary depending on the market. At June 30, 2017, the amount of principal outstanding could not exceed \$300 million. Commercial paper obligations of \$250 million with interest rates ranging from .94% to 1.00% were outstanding at June 30, 2017. These obligations were refunded subsequent to year-end with rollover notes.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
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JUNE 30, 2017

D. BONDS, NOTES AND OTHER OBLIGATIONS - Continued

Redemption Options

Certain bonds are subject to redemption prior to maturity at the option of the Department. The stated payments of principal and interest on the Department's Series 1992 and Series 2010A, B, C and D are insured by municipal bond insurance policies which cannot be canceled.

E. EMPLOYEE BENEFIT PLANS

Pension Plans

The Government sponsors or guarantees several single-employer pension plans, including (a) the closed City Plan ("City Plan"), (b) the Davidson County Employees' Retirement Fund (County Plan), both of which were closed to new members on April 1, 1963, and (c) The Metropolitan Employees' Benefit Trust Fund Division A or B ("Metro Plan"). Division A of the Metro Plan was established at the inception of The Government on April 1, 1963, and was closed to new members on July 1, 1995. Division B of the Metro Plan was established as of July 1, 1995.

All plans of the Government were established by or continue under the authority of the Metropolitan Charter, Article XIII, effective April 1, 1963. Approval of the Metropolitan Council is required to establish and amend benefit provisions. Article XIII also requires that all pension plans be actuarially sound. Administrative costs of the plans are financed by plan assets. The plans are administered by the Metropolitan Employee Benefit Board, an independent board created by the Metropolitan Charter. The financial position and results of operations of the pension plans are reported as fiduciary funds of the Government and, accordingly, are not included in the financial statements of the Department.

Substantially all employees of the Department are members of the Metropolitan Plan. Periodic contributions by the Department to the Metropolitan Plan are at actuarially determined rates that are designed to accumulate sufficient assets to pay benefits when due. Contributions to closed plans are made on a pay-as-you-go basis whereby contributions are made in amounts sufficient to cover benefits paid during the year. Actuarially required employer contributions are not computed because the plans are closed and there are few active employees. Employees do not contribute to any of the pension plans.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

E. EMPLOYEE BENEFIT PLANS - Continued

Normal retirement for employees occurs at age 65 - Division A, or 60 - Division B, and entitles employees to a lifetime monthly benefit as determined under the Plan. Benefits fully vest upon completing five years of service for employees employed on or between October 1, 2001 and December 31, 2012, who vest before leaving employment. Benefits fully vest on completing 10 years of service for employees and non-vested employees rehired on or after January 1, 2013.

A net pension liability has been recorded in the financial statement of the Department based on its pro rata share of the total net pension liability for the Government. The net pension liability was \$5,392,431 at June 30, 2017.

Certain differences between expected and actual actuarial experience and certain differences between projected and actual investment earnings are recorded as either deferred outflows of resources or deferred inflows of resources. The deferred outflows of resources and deferred inflows of resources were \$-0- and \$6,426,471 respectively at June 30, 2017. The amounts will be recognized as pension expense in future years.

Additional information regarding the pension plans of the Government is available in the Comprehensive Annual Financial Report which can be obtained from the Department of Finance, Financial Operations, 700 2<sup>nd</sup> Avenue South, P.O. Box 196300, Nashville, TN, 37219-6300, or <http://www.nashville.gov/Finance/Financial-Operations.aspx>.

Contributions to the various pension plans totaled \$4,952,608 for the year ended June 30, 2017.

Other Post-Employment Benefit (OPEB) Plans

Retirees in the Metropolitan, City or County Plans may elect to participate in the Metropolitan Employees' Medical Benefit Plan, a single-employer defined benefit healthcare plan. The Metropolitan Plan is administered by the Employee Benefit Board and provides medical, dental and life insurance. The other post-employment benefits for Government employees were authorized by the Government's charter and code. The Metropolitan Plan does not issue a stand-alone financial report.

The post-employment benefits for the Metropolitan plans were authorized by the Government's Charter. As the Government has assumed the responsibility for funding these benefits, the Department has accrued no liability as of June 30, 2017.



DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

E. EMPLOYEE BENEFIT PLANS - Continued

The contribution requirements of Metropolitan Employees' Medical Benefit Plan members and the Government are established and may be amended by the Employee Benefit Board. The required contribution is based on projected pay-as-you-go financing requirements under which contributions are made in amounts sufficient to cover benefits paid, administrative costs and anticipated inflationary increases. For health insurance, the Government contributes 75% of all premium payments, and the retirees contribute 25%. The Government also provides a 50% matching contribution on dental insurance for any retiree who elects to participate. Finally, the Government provides life insurance at no charge to the retirees.

Deferred Compensation Plan

The Government offers its employees a deferred compensation plan created in accordance with Internal Revenue Code Section 457. The plan, available to all employees, permits deferral of a portion of salary until future years. The deferred compensation is not available to employees until termination, retirement, death or unforeseeable emergency. Because the assets are not held in a trustee capacity by the Government, they are not included in the Government's financial statements. No contributions are made to this plan by the Government.

Litigation

The Department is a party to various litigation filed in the normal course of business. It is believed that the outcome of these cases will not have a material effect on the financial position of the Department.

Insurance and Benefits

The Department is subject to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; illnesses or injuries to employees; and natural disasters. The Department is a member of the Government's self-insurance program with respect to the first \$3,000,000 of liability claims and casualty losses in any one year. Liabilities for accidents are generally limited under the Governmental Tort Liability Act of the Tennessee Code as follows; bodily injury - \$300,000 per person, \$700,000 per accident; and property damage - \$100,000 per accident. Claims on real and personal property in losses to a \$10,000 deductible.

The Department is also a member of the Government's self-insurance program with respect to medical benefits and employee blanket bond coverage. Premiums paid by the Department to the program were \$7,756,271 for the year ended June 30, 2017.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

F. COMMITMENTS AND CONTINGENCIES

Federal and State Financial Assistance

The Department has received federal and state financial assistance for specific purposes that is subject to review and audit by the grantor agencies. Although such audits could generate expenditure disallowances under terms of the programs, the Department believes that any required reimbursements would not be material to the Department's financial statements. Accordingly, no provision has been made for any potential reimbursements to the grantor agencies.

Prior to the issuance of the Water and Sewer Revenue Refunding Bonds, Series 2010A, on December 16, 2010, the full faith and credit of the Government was pledged for possible deficiencies in the collection of required state sewer user fees established in connection with certain grants received from the State Funding Board (TCA 68-221-202 through 68-221-214). The Department acted as a conduit with respect to sewer user fees imposed by the state. These user fees were set at an amount sufficient to recover the project costs, including related interest expense. A portion of the proceeds from the Series 2010A Bonds was used to fully prepay the Tennessee Local Development Authority ("TLDA") loans. The amount of prepayment is \$46,426,314 at June 30, 2017 and is reported as other noncurrent assets. Subsequent to the issuance of the Bonds, the user fees are considered a general sewer charge and reflected as revenue. The amounts received were recorded as capital grants and contributions by the Department.

At June 30, 2017, the Department had commitments of \$176,800,683 for construction contracts.

The Department, the Metropolitan Council, the State of Tennessee Department of Environment and Conservation ("TDEC"), and the United States Environmental Protection Agency ("EPA"), have agreed on a consent decree to address and correct deficiencies within the Department's sewer system that have caused violations of the Clean Water Act ("CWA"). The consent decree was approved by the Federal Court in March 2009. Per the original decree, the Department was required to fully develop, in two years, a Corrective Action Plan/Engineering Report ("CAP/ER") for its sanitary sewer system and a Long-term Control Plan ("LTCP") for its combined sewer system to achieve the goals of the CWA and meet water quality requirements in the Cumberland River. Upon submittal and approval of the Plans, the Department will have an additional nine years to complete the work as developed by the Plans.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

F. COMMITMENTS AND CONTINGENCIES - Continued

Due to the historic floods that occurred in Nashville in May 2010, the Department petitioned EPA and TDEC for a six-month extension for developing the CAP/ER and LTCP and a two year extension for completing the work (final compliance) under the force majeure clause of the consent decree. Approval has been granted for both extensions. The due date for the CAP/ER and LTCP was September 11, 2011, and the due date for all work coming out of those two plans (final compliance) is eleven years after approval of the plans by EPA and TDEC. The Department submitted both plans on September 9, 2011. On August 10, 2017, the EPA approved the CAP/ER and the timeline of eleven years to complete the work. The Department is proceeding with the Submitted Plans. The Department has hired an internal program director as well as an external program management team composed of engineering consultants to manage planning, design and oversight of the program. The Department has also contracted for a construction management team to protect the investment in construction projects. A group of project set designers has been selected to assist with the design of individual projects. A total of seventeen different design firms were selected for large projects and six additional small business design firms for smaller projects.

The future related capital expenditures are expected to be between \$1 billion and \$1.5 billion. Continuing to have sewer overflows along with failure to comply with the mandate and meet future established deadlines could result in stipulated penalties of up to \$3,000 per occurrence for sanitary sewer overflows, and up to \$5,000 per day for failure to implement the improvements on a timely basis. EPA sent a demand letter for \$147,000 in stipulated penalties for sanitary overflow on September 9, 2011. This was for a negotiated 147 violations for 2010 and the first quarter of 2011. No penalties have been demanded for any delays in submitting reports and deliverables nor from the failure to timely implement work. Proposed plans to fund capital expenditures for the next few years include internally generated cash and borrowings.

G. RELATED PARTY TRANSACTIONS

The Department supplies water and sewerage services to the other departments of the Government, for which standard rates are charged.

The Government performs certain administrative functions for the Department. The cost of such services included in operating expenses is \$10,492,755 for the year ended June 30, 2017.

In addition, in February 1996, the Metropolitan Government adopted a resolution which requires the Department to make an annual payment to the Government of \$4,000,000, representing a payment in lieu of ad valorem taxes. This payment is included in operating expenses for the year ended June 30, 2017.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
NOTES TO FINANCIAL STATEMENTS  
JUNE 30, 2017

H. SUBSEQUENT EVENTS

On October 4, 2017, the Metropolitan Council approved legislation authorizing the issuance of Department of Water and Sewerage Revenue Refunding Bonds in an aggregate principal amount not to exceed \$300 million and authorizing the use of available funds of the Department to defease all or a portion of the remaining outstanding balances of the Water and Sewerage Revenue Refunding Bonds, Series 2008A.

On July 18, 2017, the Metro Government issued Water and Sewer commercial paper notes in the amount of \$25,000,000 with various maturity dates ranging from August 17, 2017 through October 26, 2017, at interest rates ranging from 1.20% to 1.23%. These obligations were or will be refunded with rollover notes at their maturity dates.

On September 12, 2017, the Metro Government issued Water and Sewer commercial paper notes in the amount of \$25,000,000 maturing on October 17, 2017 at an interest rate of 1.20%. These obligations were or will be refunded with rollover notes at their maturity dates.

The Department has evaluated subsequent events through October 31, 2017, the date the financial statements were available for issuance, and has determined that there are no other items requiring disclosure.

## **SUPPLEMENTARY INFORMATION**

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
 THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
 SCHEDULE OF UTILITY RATES (UNAUDITED)  
 JUNE 30, 2017

The rate structure is composed of a meter charge and a volume charge.

The Department had the following rate structure in effect at June 30, 2017:

| Meter Size | Water       |                  |                         |                  | Sewer       |                  |                         |                  |
|------------|-------------|------------------|-------------------------|------------------|-------------|------------------|-------------------------|------------------|
|            | Residential | Small Commercial | Intermediate Commercial | Large Commercial | Residential | Small Commercial | Intermediate Commercial | Large Commercial |
| 5/8"       | \$3.13      | \$3.98           | \$13.85                 | \$597.23         | \$7.62      | \$8.51           | \$27.89                 | \$1,076.37       |
| 3/4"       | 10.62       | 11.32            | 19.64                   | 603.69           | 21.63       | 24.22            | 39.55                   | 1,088.01         |
| 1"         | 12.77       | 13.63            | 21.51                   | 605.80           | 26.05       | 29.17            | 43.33                   | 1,091.79         |
| 1 1/2"     | 18.77       | 20.03            | 26.71                   | 611.60           | 38.29       | 42.89            | 53.81                   | 1,102.25         |
| 2"         | 25.29       | 26.97            | 32.63                   | 618.22           | 51.57       | 57.75            | 65.73                   | 1,114.18         |
| 3"         | 33.38       | 35.6             | 140.84                  | 624.04           | 68.04       | 76.21            | 82.26                   | 1,124.65         |
| 4"         | 54.41       | 58.03            | 64.65                   | 650.65           | 110.88      | 124.18           | 130.22                  | 1,172.65         |
| 6"         | 85.42       | 91.12            | 99.81                   | 689.96           | 174.12      | 195.01           | 201.05                  | 1,243.48         |
| 8"         | 133.59      | 142.50           | 155.38                  | 755.41           | 272.29      | 304.96           | 312.96                  | 1,361.43         |
| 10"        | 133.59      | 142.50           | 155.38                  | 755.41           | 272.29      | 304.96           | 312.96                  | 1,361.43         |

VOLUME:

Water usage charges per 100 cubic feet  
 (For usage over 200 cubic feet)

\$2.33    \$2.48    \$2.14    \$1.81

Sewer usage charges per 100 cubic feet  
 (For usage over 200 cubic feet)

\$4.74    \$5.30    \$4.32    \$3.26

See accompanying auditor's report.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
SCHEDULE OF NUMBER OF CUSTOMERS (UNAUDITED)  
JUNE 30, 2017

|                 | <u>Residential</u> | <u>Commercial</u> | <u>Total</u>   |
|-----------------|--------------------|-------------------|----------------|
| Water Customers | 177,246            | 26,931            | 204,177        |
| Sewer Customers | <u>187,064</u>     | <u>19,479</u>     | <u>206,543</u> |
| Total Customers | <u>364,310</u>     | <u>46,410</u>     | <u>410,720</u> |

See accompanying auditor's report.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
 THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
 SCHEDULE OF UNACCOUNTED FOR WATER (UNAUDITED)  
 JUNE 30, 2017

**AWWA Free Water Audit Software:  
Reporting Worksheet**

WAS v5.0  
 American Water Works Association.  
 Copyright © 2014, All Rights Reserved.

Water Audit Report for: Nashville Metro Water Services

Reporting Year: 2017 7/2016 - 6/2017

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

**All volumes to be entered as: MILLION GALLONS (US) PER YEAR**

---

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below

<----- Enter grading in column 'E' and 'J' ----->

**WATER SUPPLIED**

|                          |   |   |     |            |       |
|--------------------------|---|---|-----|------------|-------|
| Volume from own sources: | + | ? | 8   | 32,184.342 | MG/Yr |
| Water imported:          | + | ? | n/a |            | MG/Yr |
| Water exported:          | + | ? | 7   | 179.394    | MG/Yr |

**WATER SUPPLIED:** 32,001.360 MG/Yr

**AUTHORIZED CONSUMPTION**

|                     |   |   |     |            |       |
|---------------------|---|---|-----|------------|-------|
| Billed metered:     | + | ? | 9   | 22,974.805 | MG/Yr |
| Billed unmetered:   | + | ? | n/a | 0.000      | MG/Yr |
| Unbilled metered:   | + | ? | n/a | 0.000      | MG/Yr |
| Unbilled unmetered: | + | ? | 10  | 111.677    | MG/Yr |

**AUTHORIZED CONSUMPTION:** 23,086.482 MG/Yr

**WATER LOSSES (Water Supplied - Authorized Consumption)** 8,914.878 MG/Yr

**Apparent Losses**

|                                  |   |   |   |         |       |
|----------------------------------|---|---|---|---------|-------|
| Unauthorized consumption:        | + | ? | 7 | 75.484  | MG/Yr |
| Customer metering inaccuracies:  | + | ? | 8 | 525.084 | MG/Yr |
| Systematic data handling errors: | + | ? | 7 | 4.595   | MG/Yr |

**Apparent Losses:** 605.163 MG/Yr

**Real Losses (Current Annual Real Losses or CARL)**

Real Losses = Water Losses - Apparent Losses: 8,309.715 MG/Yr

**WATER LOSSES:** 8,914.878 MG/Yr

**NON-REVENUE WATER**

NON-REVENUE WATER: 9,026.555 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

**SYSTEM DATA**

|   |   |   |   |         |  |
|---|---|---|---|---------|--|
| Length of mains:  | + | ? | 9 | 3,085.9 | miles  |
| Number of active AND inactive service connections:                      | + | ? | 8 | 195,416 |  |
| Service connection density:   | ? | ? | ? | 63      | conn./mile main  |
| Are customer meters typically located at the curbstop or property line? | ? | ? | ? | No      |  |
| Average length of customer service line:                                | + | ? | 5 | 12.0    | ft (length of service line, beyond the property boundary, that is the responsibility of the utility) |
| Average operating pressure:   | + | ? | 7 | 91.6    | psi  |

**COST DATA**

|   |   |   |    |              |  |
|---|---|---|----|--------------|--|
| Total annual cost of operating water system:            | + | ? | 10 | \$47,665,000 | \$/Year  |
| Customer retail unit cost (applied to Apparent Losses): | + | ? | 10 | \$2.51       | \$/1000 gallons (US)   |
| Variable production cost (applied to Real Losses):      | + | ? | 5  | \$314.00     | \$/Million gallons <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses |

**WATER AUDIT DATA VALIDITY SCORE:**

\*\*\* YOUR SCORE IS: 81 out of 100 \*\*\*

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

**PRIORITY AREAS FOR ATTENTION:**

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Variable production cost (applied to Real Losses)
- 3: Unauthorized consumption

Master Meter and Supply Error Adjustments

|        |   |   |     |       |       |
|--------|---|---|-----|-------|-------|
| Pcnt:  | + | ? | 8   | 3.588 | MG/Yr |
| Value: | + | ? | ?   |       | MG/Yr |
| Pcnt:  | + | ? | n/a |       | MG/Yr |

Enter negative % or value for under-registration  
Enter positive % or value for over-registration

---

Click here: ? for help using option buttons below

|        |   |   |   |         |       |
|--------|---|---|---|---------|-------|
| Pcnt:  | + | ? | ? | 1.25%   | MG/Yr |
| Value: | + | ? | ? | 111.677 | MG/Yr |

Use buttons to select percentage of water supplied OR value

---

|        |   |   |   |        |       |
|--------|---|---|---|--------|-------|
| Pcnt:  | + | ? | ? | 0.25%  | MG/Yr |
| Value: | + | ? | ? | 75.484 | MG/Yr |

---

|        |   |   |   |         |       |
|--------|---|---|---|---------|-------|
| Pcnt:  | + | ? | ? | 0.25%   | MG/Yr |
| Value: | + | ? | ? | 525.084 | MG/Yr |

---

|        |   |   |   |       |       |
|--------|---|---|---|-------|-------|
| Pcnt:  | + | ? | ? | 0.25% | MG/Yr |
| Value: | + | ? | ? | 4.595 | MG/Yr |

See accompanying auditor's report.

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DEPARTMENT OF WATER AND SEWERAGE SERVICES  
 THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
 SCHEDULE OF UNACCOUNTED FOR WATER (UNAUDITED) - Continued  
 JUNE 30, 2017

| AWWA Free Water Audit Software:<br>System Attributes and Performance Indicators  |  | WAS v6.0<br>American Water Works Association.<br>Copyright © 2014, All Rights Reserved |
|--|--|--|
| Water Audit Report for: <input style="width: 60%; border: 1px solid black;" type="text" value="Nashville Metro Water Services"/>   |  |  |
| Reporting Year: <input style="width: 15%; border: 1px solid black;" type="text" value="2017"/> <input style="width: 30%; border: 1px solid black;" type="text" value="7/2016 - 6/2017"/> |  |  |
| *** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 81 out of 100 ***   |  |  |
| <b>System Attributes:</b>  |  |  |
|  | Apparent Losses:   | 605.163 MG/Yr  |
|  | + Real Losses:   | 8,309.715 MG/Yr  |
|  | = <u>Water Losses:</u>                                       | <b>8,914.878 MG/Yr</b>   |
|  | ? Unavoidable Annual Real Losses (UARL):                     | 1,648.66 MG/Yr   |
|  | Annual cost of Apparent Losses:                              | \$1,519,564  |
|  | Annual cost of Real Losses:                                  | \$2,609,250 Valued at <b>Variable Production Cost</b>                                  |
|  |  | Return to Reporting Worksheet to change this assumption                                |
| <b>Performance Indicators:</b>   |  |  |
| Financial:   | Non-revenue water as percent by volume of Water Supplied:    | 28.2%  |
|  | Non-revenue water as percent by cost of operating system:    | 8.7%   |
| Real Losses valued at Variable Production Cost   |  |  |
| Operational Efficiency:  | Apparent Losses per service connection per day:              | 8.48 gallons/connection/day  |
|  | Real Losses per service connection per day:                  | 116.50 gallons/connection/day  |
|  | Real Losses per length of main per day*:                     | N/A  |
|  | Real Losses per service connection per day per psi pressure: | 1.27 gallons/connection/day/psi  |
| From Above, Real Losses = Current Annual Real Losses (CARL):   |  | 8,309.71 million gallons/year  |
|  | ? Infrastructure Leakage Index (IL) [CARL/UARL]:             | 5.04   |
| * This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline  |  |  |

See accompanying auditor's report.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
SCHEDULE OF PLEDGED REVENUE COVERAGE (UNAUDITED)  
LAST TEN FISCAL YEARS  
(amounts expressed in thousands)

| <u>Fiscal Year</u> | <u>Gross Revenue(1)</u> | <u>Direct Operating Expense (2)</u> | <u>Net Revenue Available For Debt Service</u> | <u>Debt Service Requirement</u> |                 |              | <u>Coverage</u> |
|--------------------|-------------------------|-------------------------------------|---|---------------------------------|-----------------|--------------|-----------------|
|                    |                         |                                     |   | <u>Principal</u>                | <u>Interest</u> | <u>Total</u> |                 |
| 2007-08            | \$180,862               | \$ 88,416                           | \$ 92,446                                     | \$31,185                        | \$19,646        | \$50,831     | 1.82            |
| 2008-09            | 172,379                 | 90,685                              | 81,694  | 33,370                          | 18,859          | 52,229       | 1.56            |
| 2009-10            | 171,966                 | 88,603                              | 83,363  | 35,525                          | 16,526          | 52,051       | 1.60            |
| 2010-11            | 196,268                 | 94,478                              | 101,790                                       | 37,830                          | 26,998          | 64,828       | 1.57            |
| 2011-12            | 201,263                 | 102,485                             | 98,778  | 42,410                          | 29,386          | 71,796       | 1.38            |
| 2012-13            | 209,110                 | 103,423                             | 105,687                                       | 30,765                          | 34,189          | 64,954       | 1.63            |
| 2013-14            | 213,055                 | 101,703                             | 111,352                                       | 31,500                          | 41,367          | 72,867       | 1.53            |
| 2014-15            | 215,709                 | 100,825                             | 114,884                                       | 20,275                          | 40,175          | 60,450       | 1.90            |
| 2015-16            | 219,023                 | 112,208                             | 106,815                                       | 28,795                          | 39,029          | 67,824       | 1.57            |
| 2006-17            | 219,964                 | 112,654                             | 107,310                                       | 37,475                          | 37,476          | 74,951       | 1.43            |

Note: Details regarding the Department's outstanding debt can be found in the notes to the financial statements.

(1) Includes interest on investments and other income.

(2) Excludes depreciation and amortization expense.

See accompanying auditor's report.

DEPARTMENT OF WATER AND SEWERAGE SERVICES  
THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
SCHEDULE OF RESTRICTED CASH AND CASH EQUIVALENTS  
JUNE 30, 2017

**Schedule of Restricted Cash and Cash Equivalents**

|                                |                          |
|--------------------------------|--------------------------|
| Debt Service Fund              | \$ 52,176,467            |
| Waterworks revolving fund      | 200,000                  |
| Extension and replacement fund | 132,259,227              |
| Debt service reserve funds     | 40,785,624               |
| Construction funds             | <u>12,003,968</u>        |
| <br>Total                      | <br><u>\$237,425,286</u> |

See accompanying auditor's report.



Independent Auditor's Report on Internal Control over  
Financial Reporting and on Compliance and Other Matters Based on an  
Audit of Financial Statements Performed in Accordance  
With *Government Auditing Standards*

The Honorable Mayor and Members of Council  
The Metropolitan Government of Nashville and  
Davidson County, Tennessee

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Department of Water and Sewerage Services (the "Department"), an enterprise fund of the Metropolitan Government of Nashville and Davidson County, Tennessee (the "Metropolitan Government"), as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the Department's basic financial statements, and have issued our report thereon dated October 31, 2017.

**Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Department's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Department's internal control. Accordingly, we do not express an opinion on the effectiveness of the Department's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



## **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the Department's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

## **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*Crosslin, PLLC*

Nashville, Tennessee  
October 31, 2017