

90 Debt Service Funds-At a Glance

Mission To accumulate funds to repay principal (money borrowed) and interest due on general obligation bonds and notes issued by the government to finance capital projects (land, buildings, equipment, etc.) with lives greater than one year. Three funds are used to account for this debt:

25104 Schools Debt Service Fund
 20115 GSD Debt Service Fund
 28315 USD Debt Service Fund

Budget Summary

	<u>2015-16</u>	<u>2016-17</u>	<u>2017-18</u>
Expenditures and Transfers:			
Debt Service Funds	\$ 221,896,600	\$ 240,452,500	\$ 281,039,100
Total Expenditures and Transfers	<u>\$ 221,896,600</u>	<u>\$ 240,452,500</u>	<u>\$ 281,039,100</u>
Revenues and Transfers:			
Program Revenue			
Charges, Commissions, and Fees	\$ 0	\$ 0	\$ 0
Other Governments and Agencies	2,781,300	4,053,100	5,216,200
Other Program Revenue	0	0	0
Total Program Revenue	<u>\$ 2,781,300</u>	<u>\$ 4,053,100</u>	<u>\$ 5,216,200</u>
Non-program Revenue	186,694,400	199,126,100	217,112,900
Transfers From Other Funds and Units	29,420,900	37,273,300	58,710,000
Total Revenues	<u>\$ 221,896,600</u>	<u>\$ 240,452,500</u>	<u>\$ 281,039,100</u>
Expenditures Per Capita	\$ 331.64	\$ 354.19	\$ 410.63

Positions Total Budgeted Positions

Contacts Director of Finance: Talia Lomax-O'dneal email: talia.lomaxodneal@nashville.gov
 Phone: 862-6151

Metropolitan Treasurer: Tom Eddlemon email: tom.eddlemon@nashville.gov
 Phone: 880-2818

Capital Improvements Budget:
 Doug Sloan, Planning Commission email: doug.sloan@nashville.gov
 Executive Director Phone: 862-7167

These funds are administered by the Department of Finance, and have no separate organization chart.

Debt Service Expenditures by District & Fund

<u>Source Description</u>	<u>FY 2016 Budget</u>	<u>FY 2016 Actual</u>	<u>FY 2017 Budget</u>	<u>FY 2018 Budget</u>
GSD - General Services District				
20115 GSD Debt Service	\$ 126,278,400	\$ 130,793,119	\$ 136,803,000	\$ 165,393,200
25104 MNPS Debt Service	<u>78,037,100</u>	<u>80,759,496</u>	<u>84,403,400</u>	<u>94,371,300</u>
Total GSD	\$ 204,315,500	\$ 211,552,615	\$ 221,206,400	\$ 259,764,500
USD - Urban Services District				
28315 USD Debt Service	<u>\$ 17,581,100</u>	<u>\$ 17,285,760</u>	<u>\$ 19,246,100</u>	<u>\$ 21,274,600</u>
Total USD	\$ 17,581,100	\$ 17,285,760	\$ 19,246,100	\$ 21,274,600
Total General Obligation Debt Service - GSD+USD	<u>\$ 221,896,600</u>	<u>\$ 228,838,375</u>	<u>\$ 240,452,500</u>	<u>\$ 281,039,100</u>

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Budget Highlights FY 2018

The recommended budget services outstanding debt issues. Currently, Metro has approximately \$1,253,853,000 in un-issued general obligation bonds authorized for capital spending plans in Fiscal Years 2010 through 2016 after the de-authorization of some projects in 2009.

Overview

Debt Financing: Periodically, Metro borrows money to provide long-term financing for capital improvement projects that are included in the Capital Spending Plan by issuing (or selling) bonds and notes, which are written promises to repay the debt at certain times and with certain interest to bondholders/investors. The specific improvements to be financed are listed in the legislation that authorizes the debt. The proceeds from the sale of the debt are used to pay off commercial paper that provides short-term financing for those improvements.

Debt service is the process of repaying those bonds and notes, and their interest, over time to bondholders/investors. A small portion of the principal is repaid each year between issuance and maturity. This approximately matches the maturity dates of bonds to the lives of the projects they fund, and keeps Metro from having to make a big payment at one time to make a capital improvement.

Metro does not issue long-term notes and bonds to finance operating expenditures or deficits.

Types of debt: Debt generally falls into the following categories:

- General obligation (GO) debt is payable from taxes, and is backed by the full faith, credit, and taxing power of the government. There is no legal limit to Metro's use of general obligation debt, although issuance requires passage of a Council ordinance. Only general obligation debt is repaid from the three debt service funds (25104, 20115, and 28315).
- Revenue debt is often used to finance projects that will generate revenue. Part of the revenue generated by a project is used to service the debt on the project. It is accounted for through the enterprise or internal service fund that develops the capital project and receives its revenues.
- Limited obligation revenue debt is a newer hybrid form that normally operates as revenue debt, but is backed by certain non-property-tax revenues (defined in the bond covenants) in the event that there are not sufficient revenues to service the debts.

Interest earned by our bondholders/investors is generally held to be exempt from federal and Tennessee taxation.

Structure: Metro's outstanding debt takes three forms:

- Bonds - Long-term debt that usually matures over a period of 20-30 years.
- Notes - Shorter-term debt that is issued for three years, renewable for an additional two terms of three years each. The usual total maturity is 3 to 5 years.
- Commercial paper - Short-term GO obligations with flexible maturities ranging from 2 to 270 days, issued as cash when needed in blocks of \$100,000 plus \$1,000 increments. Interest rates are usually lower than bond interest rates.

Notes and commercial paper often provide temporary financing and are retired by issuing longer-term bonds.

Many bonds have "call" provisions that allow Metro to redeem the debt before its scheduled maturity. This is most often done when the debt being called is refunded by issuing new debt for the same period of time but at lower interest rates. The lower interest costs save Metro money over the remaining life of the bond issue.

Legal Limitations: There is no legal debt margin limitation on GSD debt. Section 7.08 of the Charter limits the USD total net bonded indebtedness payable from USD ad valorem taxes, after deduction of sinking funds for the payment of principal, to 15% of the USD assessed valuation of taxable property. At June 30, 2016, the taxable property was valued at \$14.7 billion, so the 15% limit was \$2.2 billion. With only \$181.3 million of applicable debt (1.25% of valuation), the margin was \$2.0 billion.

Bond Ratings: Metro holds excellent investment-grade ratings from two independent rating agencies (Moody's Aa2 and Standard & Poor's AA). These ratings are based on both the city's financial health and available reserves for paying off debt. Each agency has its own rating system; ratings of the two agencies cannot necessarily be compared to each other. For explanations of the ratings, visit each agency's web site.

Some bonds' scheduled payment of principal and interest is privately insured by Financial Security Assurance, Inc. (FSA).

Debt Policies: The following guidelines are used in managing debt service funds:

- USD general obligation debt is subject to the legal limitation noted above.
- Debt is not issued above the capacity provided by current revenue sources (including property taxes at the current rate) plus anticipated normal growth; debt is not issued in anticipation of a not-yet-approved property tax increase.
- When planning future debt capacity, normal revenue growth is projected conservatively.
- The financing of an improvement will not exceed its useful life. In a multi-purpose bond package, the package maturities will reflect the mix of project lives funded by the package; the average life of the bonds cannot exceed the average life of the projects.
- General obligation issues are sold either by negotiated sale or by bid in public offering; a bid sale is awarded to the bidder with the lowest true interest cost or through negotiated offering.
- Bond issues may be considered for refunding when lower interest rates on the new bonds will result in a 3% or better net present value savings over the old bonds. The term of the refunding bonds will not exceed the terms of the bonds being refunded.

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Revenue Sources: Revenues for all three funds are detailed in the budget ordinance. The GSD and USD Debt Service Funds (funds 20115 & 28315) are funded primarily by a dedicated portion of the property tax levies. The GSD Debt Service Fund also receives \$3.2 million from the GSD General Fund (fund 10101) for stadium debt, and the Schools Debt Service Fund (fund 25104) receives substantial schools-related sales taxes.

Capital Expenditures and the Budget: The discussion of Capital Improvements in Section A of this book describes how these funds relate to the operating budget.

Recent Bond Issues: The Recent Bond Issues table summarizes recent bond issues. Note that only the general obligation issues are serviced through the GSD, USD, and Schools Debt Service funds; the revenue issues are serviced through non-tax sources. Future debt service requirements are listed on the next page.

Comparative Debt Statistics: The Comparable Debt Statistics table uses standard indicators to measure debt burden levels and trends.

Comparative Debt Statistics

Fiscal Year	Net Debt to Assessed Valuation		Net Debt Per Capita	Debt Service to Total Expenditures
	GSD+USD	USD only		
2007	8.97%	1.15%	2,475.02	10.0%
2008	10.23%	1.36%	2,681.96	10.0%
2009	9.35%	1.25%	2,450.19	10.0%
2010	9.77%	1.16%	2,954.43	9.5%
2011	9.64%	1.14%	2,954.26	8.8%
2012	9.88%	1.31%	2,971.28	5.2%
2013	11.62%	1.41%	3,433.01	6.6%
2014	10.92%	1.32%	3,349.79	9.2%
2015	11.32%	1.25%	3,451.98	9.8%
2016	12.80%	1.23%	3,910.24	9.2%

Source: Comprehensive Annual Financial Reports for each year

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Recent Bond Issues						
Issue	Date Issued	Amount & interest rate	Maturity	Ratings *	Fund *	Comments *
GO Public Improvement Refunding Bonds, Series 2004	09/01/04	\$51,340,000 3.000-5.000%	2004 to 2017	M: Aa2 S: AA F: AA+	G S	Advance refund portions of outstanding GO MP Improvement Bonds, Series 1996A
General Obligation Refunding Bonds, Series 2006A	05/11/06	\$60,805,000 3.60%	2006 to 2026	M: Aa2/VMIG1 S: AA/A-1 F:AA+/F1+	G	Current Refund of outstanding general obligation public improvement bonds, Series 1996 held in interest rate hedging agreement. Finance the retirement of a portion of the G O Anticipation Notes (Commercial Paper), and general government projects.
General Obligation Bonds, Series 2006B	06/23/06	\$203,315,000 4.00-5.00%	2006 to 2026	M: Aa S: AA F: AA+	G U S	Finance the retirement of a portion of the G O Anticipation Notes (Commercial Paper), and general government projects.
General Obligation Refunding Bonds, Series 2007A	04/24/07	\$186,890,000 4.00%-5.00%	2008 to 2028	M: Aa2 S: AA F: AA	G U S	Current and Advance refund portions of outstanding bonds: GO Bonds Series 2003, GO MP & Refunding Series 1999, Series 1997A and GO Refunding Series 1997
Water and Sewer Revenue Refunding Bonds, Series 2008A	02/22/08	\$122,530,000 3.25%-5.25%	2011 to 2022	M: Aa3 S: AA- F: AA-	--	Non-GO. Current refund of W&S Revenue Refunding Bonds, Series 1998A (\$127,775,000) maturing in 2011-2019, and W&S Revenue Bonds, Series 1998B (\$785,000) maturing 2011-2012.
General Obligation Bonds, Series 2008A	03/4/08	\$308,000,000 4.00-5.00%	2011 to 2028	M: Aa2 S: AA F: AA	G U S	Finance the retirement of a portion of the General Obligation Anticipation Notes (Commercial Paper), and general government projects.
General Obligation Improvement and Refunding Bonds, Series 2010A	06/10/10	\$296,750,000 2.75 - 5.00%	2010 to 2026	M: Aa1 S: AA	G U S	Finance the retirement of a portion of the G.O Anticipation Notes (Commercial Paper), and advance refund portions of outstanding bonds.
General Obligation Improvement Bonds Federally Taxable (BAB's), Series 2010B	06/10/10	\$252,005,000 5.71%	2010 to 2034	M: Aa1 S: AA	G U S	Finance the retirement of a portion of the General Obligation Anticipation Notes (Commercial Paper), and general government projects.
General Obligation Refunding Bonds Federally Taxable (BAB's), Series 2010C	06/10/10	\$51,485,000 2.21 - 3.23%	2010 to 2015	M: Aa1 S: AA	G U S	Advance refund portions of outstanding bonds.
General Obligation Refunding Bonds, Series 2010D	09/21/10	\$291,360,000 1.50 - 5.00%	2010 to 2024	M: Aa1 S:AA	G U S	Advance refund portions of outstanding bonds.
Water and Sewer Revenue Refunding Bonds, Series 2010A	12/9/10	\$104,050,000 3.00 - 5.00%	2010 to 2027	M: Aa3 S: AA	--	Non-GO. Advance refund portions of outstanding W&S Revenue Refunding Bonds.

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Water and Sewer Revenue Bonds Federally Taxable, Series 2010B (BAB-Direct Payment)	12/9/10	\$135,000,000 6.39 – 6.57%	2010 to 2037	M: Aa3 S: AA	–	Finance the retirement of currently outstanding W&S Commercial Paper Bond Anticipation Notes and finance additional capital projects.
Water and Sewer Revenue Bonds Federally Taxable Series 2010C (Recovery Zone Economic Dev. Bonds)	12/9/10	\$75,000,000 6.69%	2010 to 2041	M: Aa3 S: AA	–	Finance Water system capital projects.
Water and Sewer Revenue Refunding Bonds Federally Taxable Series 2010D	12/9/10	\$7,610,000	2010 to 2018	M: Aa3 S: AA	–	Non-GO. Advance refund portions of outstanding W&S Revenue Refunding Bonds.
General Obligation Refunding Bonds, Series 2011	09/29/11	\$89,480,000 2.00 – 5.00%	2011 to 2023	M: Aa1 S: AA	G U S	Advance refund portions of outstanding bonds.
General Obligation Refunding Bonds, Series 2012	02/02/12	\$227,110,000 2.00 – 5.00%	2012 to 2025	M: Aa1 S: AA	G U S	Advance refund portions of outstanding bonds.
Water and Sewer Revenue Refunding Bonds, Series 2012	02/02/12	\$129,625,000 1.00 – 5.00%	2012 to 2023	M: A1 S: A+	–	Non-GO. Advance refund portions of outstanding W&S Revenue Refunding Bonds.
General Obligation Improvement Bonds Federally Taxable, Series 2012	08/15/12	\$6,440,000 3.367%	2027	M: Aa1 S: AA	G	Finance the costs of certain public projects of the Metropolitan Government for qualified energy conservation improvements.
District Energy System Revenue and Tax Refunding Bonds, Series 2012A	08/15/12	\$47,450,000 2.00 – 5.00%	2013 To 2033	M: Aa1 S: AA	U	Advance refund of outstanding Energy Production Facility Revenue Bonds.
General Obligation Refunding Bonds, Series 2012B	08/15/12	\$140,345,000 .320 – 2.76%	2013 To 2024	M: Aa1 S: AA	G U S	Advance refund of portions of outstanding bonds.
General Obligation Refunding Bonds, Series 2013	02/21/13	\$245,485,000 2.00 – 5.00%	2015 To 2027	M: Aa1 S: AA	G U S	Advance refund of portions of outstanding bonds.
Water and Sewer Revenue Bonds, Series 2013	04/25/13	\$237,930,000 3.00 – 5.00%	2022 To 2033	M: Aa3 S: AA-	–	Retire outstanding Water and Sewer commercial paper and to fund a debt reserve fund.
General Obligation Improvement Bonds, Series 2013A	05/09/13	\$374,665,000 3.00 – 5.00%	2020 To 2033	M: Aa1 S: AA	G U S	Retire outstanding General Obligation Commercial paper, and to finance capital projects.
General Obligation Extendable Commercial Paper Notes 2014 Program	07/09/14	Up to \$200,000,000 Market rates	Up to 90 days issue with option to extend up to 270 days after issue	M: P-1 S: A-1+	G U S	Provide interim financing of various capital projects and to refinance existing general obligation commercial paper notes.
General Obligation Commercial Paper Series A-1	07/09/14	Up to \$300,000,000 Market rates	Up to 270 days after issue	M: P-1 S: A-1+	G U S	Provide interim financing of various capital projects and to refinance existing general obligation commercial paper notes.
General Obligation Commercial Paper Series A-2	07/09/14	Up to \$200,000,000 Market rates	Up to 270 days after issue	M: P-1 S: A-1+	G U S	Provide interim financing of various capital projects and to refinance existing general obligation commercial paper notes.
General Obligation Refunding Bonds, Series 2015A	02/19/15	\$59,730,000 5%	2021 To 2026	M: Aa2 S: AA	G U S	Advance refund of portions of outstanding bonds.

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General Obligation Refunding Bonds, Series 2015B (Taxable)	02/19/15	\$103,980,000 .300 – 3.493%	2015 To 2029	M: Aa2 S: AA	G U S	Advance refund of portions of outstanding bonds
Water and Sewer Extendable Commercial Paper Notes, 2015 Program	04/15/15	Up to \$100,000,000 Market Rate	Up to 90 days issue with option to extend up to 270 days after issue	M: P-1 S: A-1+	–	Provide interim financing of various capital projects and refinance existing projects as relate to Water and Sewer prior to the issuing of bonds.
General Obligation Improvement Bonds, Series 2015C	07/21/15	\$347,235,000 4.00 – 5.00%	2017 To 2034	M: Aa2 S: AA	G U S	Retire outstanding General Obligation Commercial Paper Notes.
Water and Sewer Revenue Commercial Paper Notes, Series A	10/06/15	Up to \$183,000,000 Market Rate	Up to 270 days after Issue	M: P-1 S: A-1+	–	Provide interim financing of various capital projects and refinance existing projects as relate to Water and Sewer prior to the issuing of bonds.
General Obligation Refunding Bonds, Series 2016	06/01/16	\$343,975,000 2.00 – 5.00%	2017 To 2033	M: Aa2 S: AA	G U S	Advance refund of portions of outstanding bonds.
General Obligation Improvement Bonds, Series 2017	02/02/17	\$455,540,000 4.00 – 5.00%	2018 To 2036	M: Aa2 S: AA	G U S	Retire outstanding General Obligation Commercial Paper Notes.
<p>* Ratings: M = Moody's, S = Standard & Poor's, F = Fitch, I = Insured (see text). Maturity dates are <u>underlined</u>. Fund: This code shows the debt service fund(s) used to repay this issue. G = GSD, U = USD, S = Schools. Comments: Non-GO = Not a general obligation debt, but included in this table for completeness</p>						

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Bonds and Notes Payable at June 30, 2016						
GENERAL OBLIGATION BONDS PAYABLE General Services District (GSD)	Interest Rate	Date of Issue	Date of Final Maturity	Amount of Issue	June 30, 2016	
					Principal	Interest
GSD G.O Pub Impr. Refunding Bonds, Series 2004	3.250 - 5.00	Sept. 1, 2004	Nov. 14, 2016	48,367,055	6,764,226	169,105
GSD G.O. Bonds, Series 2006B	4.00 - 5.00	Jun.15, 2006	Feb. 1, 2026	113,783,394	5,350,167	106,996
GSD G.O. Refunding Bonds, Series 2007A	4.00 - 5.00	April 15, 2007	May 15, 2030	125,908,003	8,701,651	646,261
GSD G.O. Bonds, Series 2008A	4.00 - 5.00	Mar. 15, 2008	Jan. 1, 2028	174,880,073	11,787,370	1,178,738
GSD G.O. Improvement and Refunding Bonds, Series 2010A	2.75 - 5.00	Jun.10, 2010	July 1, 2026	159,008,728	114,844,062	20,410,019
GSD G.O. Improvement Bonds Federally Taxable (BAB's), Series 2010B	5.71	Jun.10, 2010	July 1, 2034	138,046,756	138,046,756	117,626,973
GSD G.O. Refunding Bonds, Series 2010D	1.50 - 5.00	Sept. 21, 2010	July 1, 2024	144,150,016	115,689,585	21,307,818
GSD G.O. Refunding Bonds, Series 2011	2.00 - 5.00	Sept. 16, 2011	July 1, 2023	49,712,377	40,285,121	9,485,643
GSD G.O. Refunding Bonds, Series 2012	2.00 - 5.00	Jan. 20, 2012	July 1, 2025	154,956,701	142,194,316	40,006,138
GSD G.O. Improvement Bonds (QECCB Federally Taxable), Series 2012	3.367	Aug. 15, 2012	Aug. 1 2027	6,440,000	6,440,000	2,493,600
GSD G.O. Refunding Bonds (Taxable), Series 2012B	.320 - 2.767	Aug. 15, 2012	July 1, 2024	67,480,283	64,066,483	7,342,240
GSD G.O. Refunding Bonds, Series 2013	3.00 - 5.00	Feb. 21, 2012	July 1, 2027	138,755,487	134,538,871	56,457,758
GSD G.O. Improvement Bonds, Series 2013A	3.00 - 5.00	May 9, 2013	Jan. 1, 2033	253,070,885	38,396,473	10,806,806
GSD G.O. Refunding Bonds, Series 2015A	5.00	Feb. 19, 2015	July 1, 2026	33,884,829	33,884,829	13,043,788
GSD G.O. Refunding Bonds, Series 2015B (Taxable)	.30 - 3.493	Feb. 19, 2015	July 1, 2029	72,314,470	70,888,766	12,137,071
GSD G.O. Improvement Bonds, Series 2015C	4.00 - 5.50	Jul. 21, 2015	July 1, 2034	240,454,031	240,454,031	130,193,530
GSD G.O. Refunding Bonds, Series 2016	2.00 - 5.00	Jun.1, 2016	Jan. 1, 2033	231,949,343	231,949,343	125,544,582
Total General Obligation Bonds Payable For General Purposes				2,153,162,431	1,404,282,050	568,957,066
For School Purposes:						
GSD G.O Pub Impr. Refunding Bonds, Series 2004	3.250 - 5.00	Sept. 1, 2004	Nov. 14, 2016	2,972,945	415,774	10,395
GSD G.O. Bonds, Series 2006B	4.00 - 5.00	Jun.15, 2006	Feb. 1, 2026	69,160,188	3,251,956	65,048
GSD G.O. Refunding Bonds, Series 2007A	4.00 - 5.00	April 15, 2007	May 15, 2030	58,421,307	3,750,366	270,256
GSD G.O. Bonds, Series 2008A	4.00 - 5.00	Mar. 15, 2008	Jan. 1, 2028	95,095,340	6,409,673	640,967
GSD G. O Improvement and Refunding Bonds, Series 2010A	2.75 - 5.00	Jun.10, 2010	July 1, 2026	114,567,598	84,153,120	14,283,046
GSD G. O Improvement Bonds Federally Taxable (BAB's), Series 2010B	5.71	Jun.10, 2010	July 1, 2034	70,516,649	70,516,649	60,085,872
GSD G. O Refunding Bonds, Series 2010D	1.50 - 5.00	Sept. 21, 2010	July 1, 2024	120,126,326	96,409,047	17,756,708
GSD G.O. Refunding Bonds, Series 2011	2.00 - 5.00	Sept. 16, 2011	July 1, 2023	32,574,740	25,336,996	5,824,975
GSD G.O. Refunding Bonds, Series 2012	2.00 - 5.00	Jan. 20, 2012	July 1, 2025	53,280,200	48,891,994	13,755,684
GSD G.O. Refunding Bonds (Taxable), Series 2012B	.320 - 2.767	Aug. 15, 2012	July 1, 2024	62,161,564	59,016,832	6,763,533
GSD G.O. Refunding Bonds, Series 2013	3.00 - 5.00	Feb. 21, 2012	July 1, 2027	82,814,365	80,297,734	33,696,062
GSD G.O. Improvement Bonds, Series 2013A	3.00 - 5.00	May 9, 2013	Jan. 1, 2033	84,932,213	12,886,103	3,626,833
GSD G.O. Refunding Bonds, Series 2015A	5.00	Feb. 19, 2015	July 1, 2026	22,804,914	22,804,914	8,778,632
GSD G.O. Refunding Bonds, Series 2015B (Taxable)	.30 - 3.493	Feb. 19, 2015	July 1, 2029	30,240,838	29,644,630	5,075,543
GSD G.O. Improvement Bonds, Series 2015C	4.00 - 5.50	Jul. 21, 2015	July 1, 2034	97,563,777	97,563,777	52,825,784
GSD G.O. Refunding Bonds, Series 2016	2.00 - 5.00	Jun.1, 2016	Jan. 1, 2033	78,790,586	78,790,586	42,448,646
Total General Obligation Bonds Payable for School Purposes				1,076,023,550	720,140,151	265,907,984
Total General Obligation Bonds Payable - General Services District				3,229,185,981	2,124,422,201	834,865,050

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GENERAL OBLIGATION BONDS PAYABLE
Urban Services District (USD)

Bonds and Notes Payable at June 30, 2016

	Interest Rate	Date of Issue	Date of Final Maturity	Amount of Issue	June 30, 2016	
					Principal	Interest
USD G.O. Bonds, Series 2006B	4.00 - 5.00	Jun.15, 2006	Feb. 1, 2026	20,371,418	957,877	19,156
USD G.O. Refunding Bonds, Series 2007A	4.00 - 5.00	April 15, 2007	Jan. 1, 2028	2,560,690	172,983	12,731
USD G.O. Bonds, Series 2008A	4.00 - 5.00	Mar. 15, 2008	Jan. 1, 2028	38,024,587	2,562,957	256,295
USD G.O. Improvement and Refunding Bonds, Series 2010A	2.75 - 5.00	Jun.10, 2010	July 1, 2026	22,899,473	18,146,951	2,456,294
USD G.O. Improvement Bonds Federally Taxable (BAB's), Series 2010B	5.71	Jun.10, 2010	July 1, 2034	43,441,595	43,441,595	37,015,743
USD G.O. Refunding Bonds, Series 2010D	1.50 - 5.00	Sept. 21, 2010	July 1, 2024	25,925,413	20,806,800	3,832,216
USD G.O. Refunding Bonds, Series 2011	2.00 - 5.00	Sept. 16, 2011	July 1, 2023	6,688,796	6,688,796	1,649,775
USD G.O. Refunding Bonds, Series 2012	2.00 - 5.00	Jan. 20, 2012	July 1, 2025	18,873,099	17,318,690	4,872,585
USD G.O. Refunding Bonds (Taxable), Series 2012B	.320 - 2.767	Aug. 15, 2012	July 1, 2024	7,471,610	7,093,623	812,954
USD G.O. Refunding Bonds, Series 2013	3.00 - 5.00	Feb. 21, 2012	July 1, 2027	23,915,148	23,188,395	9,730,756
USD G.O. Improvement Bonds, Series 2013A	3.00 - 5.00	May 9, 2013	Jan. 1, 2033	30,135,613	4,572,241	1,286,872
USD G.O. Refunding Bonds, Series 2015A	5.00	Feb. 19, 2015	July 1, 2026	3,040,257	3,040,257	1,170,332
USD G.O. Refunding Bonds, Series 2015B (Taxable)	.30 - 3.493	Feb. 19, 2015	July 1, 2029	1,424,692	1,396,604	239,117
USD G.O. Improvement Bonds, Series 2015C	4.00 - 5.50	Jul. 21, 2015	July 1, 2034	8,531,298	8,531,298	4,619,261
USD G.O. Refunding Bonds, Series 2016	2.00 - 5.00	Jun.1, 2016	Jan. 1, 2033	27,571,610	27,571,610	14,933,118
Total General Obligation Bonds Payable (governmental activities)				280,875,299	185,490,677	82,907,205
USD G.O. Improvement & Refunding Bonds, Series 2010A(1)	2.21 - 5.71	Jun.10, 2010	49126.000	274,201	265,867	27,130
USD G.O. Refunding Bonds, Series 2010D (DES)	1.50 - 5.00	Sept. 21, 2010	July 1, 2024	1,158,245	929,568	171,207
USD G.O. Refunding Bonds, Series 2011 (DES)	2.00 - 5.00	Sept. 16, 2011	July 1, 2023	504,087	504,087	171,231
District Energy System Revenue Refunding Bonds, Series 2012A	2.000 - 5.000	Aug. 15, 2012	Oct. 1, 2033	47,450,000	42,870,000	19,286,200
USD G.O. Refunding Bonds (Taxable), Series 2012B	.320 - 2.767	Aug. 15, 2012	July 1, 2024	3,231,543	3,068,062	351,611
USD G.O. Improvement Bonds, Series 2013A	3.00 - 5.00	May 9, 2013	Jan. 1, 2033	6,526,289	990,183	278,690
USD G.O. Improvement Bonds, Series 2015C	4.00 - 5.50	Jul. 21, 2015	July 1, 2034	685,894	685,894	371,376
USD G.O. Refunding Bonds, Series 2016	2.00 - 5.00	Jun.1, 2016	Jan. 1, 2033	5,663,461	5,663,461	3,134,963
Total General Obligation Bonds Payable (business-type activities)				65,493,720	54,977,122	23,792,408
Total General Obligation Bonds Payable - Urban Services District				346,369,019	240,467,799	106,699,613
REVENUE BONDS PAYABLE						
Dept of Water and Sewerage Rev. Refunding Bonds of 2008A	3.250 - 5.250	Feb. 15, 2008	Jan. 1, 2022	122,530,000	84,290,000	15,886,888
Dept of Water and Sewerage Rev. Refunding Bonds, Series 2010A	3.00 - 5.00	Dec. 9, 2010	Jul. 1, 2027	104,050,000	82,575,000	25,887,500
Dept of Water and Sewerage Rev. Bonds Federally Taxable, Series 2010B(B)	6.393 - 6.568	Dec. 9, 2010	Jul. 1, 2037	135,000,000	135,000,000	148,233,505
Dept of Water and Sewerage Rev. Bonds Federally Taxable, Seies 2010C	6.693	Dec. 9, 2010	Jul. 1, 2041	75,000,000	75,000,000	119,793,656
Dept of Water and Sewerage Rev. Refunding Bonds, Federally Taxable Serie	4.255 - 4.791	Dec. 9, 2010	Jul. 1, 2018	7,610,000	7,610,000	541,098
Dept of Water and Seweage Rev. Refunding Bonds, Series 2012	2.00 - 5.00	Jan. 2, 2012	Jul. 1, 2025	129,625,000	122,505,000	22,532,375
Dept of Water and Sewerage Rev. Bonds, Series 2013	1.89 - 5.00	Apr. 25, 2013	Jul. 1, 2033	237,930,000	237,930,000	209,377,775
Total Revenue Bonds Payable - Department of Water and Sewerage				811,745,000	744,910,000	542,252,797
Total Revenue Bonds Payable - Urban Services District				811,745,000	744,910,000	542,252,797
Total Bonds Payable - Urban Services District				1,158,114,019	985,377,799	648,952,410

90 Debt Service Funds-At a Glance

Future Debt Service Requirements for Debt Outstanding at 06/30/16

General Obligation Debt (Debt Service Funds)

Fiscal Year	GSD Debt Service			GSD School Debt Service		
	Principal	Interest	Total	Principal	Interest	Total
2017	71,232,868	58,701,494	129,934,362	47,820,548	30,106,899	77,927,447
2018	74,519,733	60,211,463	134,731,196	50,698,439	29,716,811	80,415,250
2019	79,340,942	56,665,178	136,006,120	52,477,712	27,439,282	79,916,994
2020	85,839,783	53,416,805	139,256,588	45,946,322	25,497,252	71,443,574
2021	89,683,270	49,742,736	139,426,006	47,700,825	23,534,602	71,235,427
2022	90,760,344	45,578,339	136,338,683	49,001,988	21,326,128	70,328,116
2023	99,500,042	41,209,234	140,709,276	47,722,060	19,110,676	66,832,736
2024	99,635,675	36,892,142	136,527,817	56,032,393	16,901,784	72,934,177
2025	100,686,780	32,512,792	133,199,572	53,857,727	14,598,127	68,455,854
2026	90,506,672	28,140,078	118,646,750	45,376,984	12,377,166	57,754,150
2027	80,264,226	24,049,930	104,314,156	38,879,535	10,346,905	49,226,440
2028	81,381,629	20,080,657	101,462,286	34,374,438	8,517,868	42,892,306
2029	54,440,756	16,792,746	71,233,502	22,107,210	7,111,712	29,218,922
2030	56,397,790	14,531,712	70,929,502	22,922,305	6,142,038	29,064,343
2031	55,980,113	11,760,582	67,740,695	22,705,492	4,996,603	27,702,095
2032	58,507,185	8,912,370	67,419,555	23,717,694	3,820,614	27,538,308
2033	61,154,408	5,931,866	67,086,274	24,777,211	2,591,084	27,368,295
2034	36,457,317	2,860,550	39,317,867	16,663,639	1,324,897	17,988,536
2035	37,992,517	966,392	38,958,909	17,357,629	447,536	17,805,165
Total	1,404,282,050	568,957,066	1,973,239,116	720,140,151	265,907,984	986,048,135

90 Debt Service Funds-At a Glance

Future Debt Service Requirements for Debt Outstanding at 06/30/16

General Obligation Debt (Debt Service Funds)

Fiscal Year	Water Service (USD)			USD Debt Service		
	Principal	Interest	Total	Principal	Interest	Total
2017	28,795,000	39,028,808	67,823,808	12,181,584	10,440,473	22,622,057
2018	37,475,000	37,476,030	74,951,030	13,931,828	10,582,551	24,514,379
2019	38,225,000	35,654,524	73,879,524	13,686,346	9,932,491	23,618,837
2020	39,120,000	33,743,634	72,863,634	12,048,895	9,404,551	21,453,446
2021	40,180,000	31,823,496	72,003,496	12,620,905	8,869,043	21,489,948
2022	40,985,000	29,812,021	70,797,021	12,812,668	8,252,550	21,065,218
2023	31,780,000	27,663,509	59,443,509	13,562,898	7,630,047	21,192,945
2024	22,235,000	26,448,384	48,683,384	15,246,932	7,007,590	22,254,522
2025	15,945,000	25,539,009	41,484,009	15,115,493	6,337,957	21,453,450
2026	16,720,000	24,747,784	41,467,784	13,691,344	5,659,226	19,350,570
2027	17,545,000	23,901,434	41,446,434	14,716,239	4,967,593	19,683,832
2028	18,430,000	22,945,607	41,375,607	14,323,933	4,249,272	18,573,205
2029	19,185,000	21,945,278	41,130,278	11,192,034	3,620,213	14,812,247
2030	19,990,000	20,883,312	40,873,312	11,589,905	3,128,483	14,718,388
2031	20,905,000	19,699,453	40,604,453	12,009,395	2,551,167	14,560,562
2032	21,860,000	18,451,344	40,311,344	12,505,121	1,950,523	14,455,644
2033	22,880,000	17,135,511	40,015,511	13,033,381	1,308,564	14,341,945
2034	23,940,000	15,759,250	39,699,250	9,634,044	624,503	10,258,547
2035	25,055,000	14,319,833	39,374,833	6,564,854	182,816	6,747,670
2036	26,220,000	12,814,244	39,034,244			
2037	27,445,000	11,239,340	38,684,340			
2038	28,720,000	9,588,611	38,308,611			
2039	30,025,000	7,852,927	37,877,927			
2040	31,330,000	6,034,798	37,364,798			
2041	32,680,000	4,145,639	36,825,639			
2042	34,015,000	2,256,719	36,271,719			
2043	16,280,000	1,003,400	17,283,400			
2044	16,945,000	338,898	17,283,898			
Total	744,910,000	542,252,797	1,287,162,797	240,467,799	106,699,613	347,167,412

90 Debt Service Funds-At a Glance

Highlights from the Metropolitan Government of Nashville and Davidson County's Debt Management Policy

The purpose of the Policy is to establish and document the objectives and practices for debt management for the Metropolitan Government and to assist all concerned parties in understanding the Metropolitan Government's approach to debt management.

Policy Statement

In managing its debt, it is the Metropolitan Government's policy to:

- Achieve the lowest cost of capital
- Ensure high credit quality
- Assure access to the capital credit markets
- Preserve financial flexibility
- Manage interest rate risk exposure

Goals & Objectives

Debt policies and procedures are tools that ensure that financial resources are adequate to meet the Metropolitan Government's long-term financing objectives. In addition, the Policy helps to ensure that financings undertaken by the Metropolitan Government satisfy certain clear objective standards which allow the Metropolitan Government to protect its financial resources in order to meet its short-term financing and long-term capital needs. The adoption of clear and comprehensive financial policies enhances the internal financial management of the Metropolitan Government.

Issuance Process

The Metropolitan Government charter, which was approved by referendum on June 28, 1962, as amended, and Title 9, Chapter 21 of the Tennessee Code Annotated authorizes the Metropolitan Government to issue general obligation bonds subject to the adoption of a bond resolution by the Metropolitan Council. Other sections of the Tennessee Code Annotated and the Federal Tax Code may govern the issuance or structure of the Metropolitan Government's bonds.

The Metropolitan Government strongly prefers a competitive issuance process for all debt issuances. The Metropolitan Government will consider a negotiated issuance or private placement process only where it is clear that such process is in the best interests of the Metropolitan Government.

Credit Quality and Credit Enhancement

The Metropolitan Government's debt management activities will be conducted to receive the highest credit ratings possible, consistent with the Metropolitan Government's financing objectives. The Director of Finance will be responsible for maintaining relationships and communicating with the rating agencies that assign

ratings to the Metropolitan Government's debt. The Director of Finance will provide the rating agencies with periodic updates of the general financial condition of the Metropolitan Government. Full disclosure of operations and open lines of communication shall be maintained with the rating agencies. The Metropolitan Government, together with the Financial Advisor, shall prepare presentations to the rating agencies to assist credit analysts in making an informed decision. The Director of Finance shall be responsible for determining whether or not a rating shall be requested on a particular financing, and which of the major rating agencies will be asked to provide such rating.

The Metropolitan Government will make an annual credit presentation to the Metropolitan Council, explaining the Metropolitan Government's current rating, rating agency views on the Metropolitan Government's performance and current items which may positively or adversely affect the Metropolitan Government's credit rating.

The Metropolitan Government will consider the use of credit enhancements on a case-by-case basis, evaluating the economic benefit versus cost for each case. Only when clearly demonstrable savings can be shown shall an enhancement be considered.

Debt Affordability

It is the intent of the Metropolitan Government to promote the most efficient and cost-effective use of debt financing in order to facilitate long-term access to capital while ensuring that financial leveraging decisions do not negatively impact the Metropolitan Government's annual operations. To this end, the government will periodically review basic measures of debt affordability, including but not limited to, average life of new debt, percentage of principal paid within 10 years, per capita debt/per capita income, per capita debt/per capita assessed value, and debt service/general fund operating expenses.

Bond Structure

The Metropolitan Government shall establish all terms and conditions relating to the issuance of bonds, and will invest all bond proceeds pursuant to the terms of the Metropolitan Government's Investment Policy. Unless otherwise authorized by the Metropolitan Government, the following shall serve as bond requirements:

1. **Term.** Capital improvements financed through the issuance of debt will be financed for a period not to exceed the useful life of the improvements with a maximum of twenty (20) years. In certain circumstances where the debt meets legal requirements and is in the best interest of the Metropolitan Government this period may be extended to a maximum of thirty (30) years.

90 Debt Service Funds-At a Glance

- Capitalized Interest.** From time to time certain financings may require the use of capitalized interest from the issuance date until the Metropolitan Government has beneficial use and/or occupancy of the financed project. Interest shall not be funded (capitalized) beyond three (3) years or a shorter period if further restricted by statute. Interest earnings may, at the Metropolitan Government's discretion, be applied to extend the term of capitalized interest but in no event beyond the term statutorily authorized or three years, whichever is shorter.
- Debt Service Structure.** Debt issuance shall be planned to achieve relatively level debt service for an individual bond issue, while still matching debt service to the useful life of the capital asset financed by the debt. The Metropolitan Government shall avoid the use of bullet or balloon maturities except in those instances where these maturities serve to make existing overall debt service level or match a specific income stream.
- Call Provisions.** In general, the Metropolitan Government's securities will include a call feature, which is no later than ten (10) years from the date of delivery of the bonds. The Metropolitan Government will avoid the sale of long-term non-callable bonds absent careful evaluation by the Metropolitan Government with respect to the value of the call option.
- Original Issuance Discount/Premium.** Bonds with original issuance discount/premium will be permitted.
- Deep Discount Bonds.** Deep discount bonds may provide a lower cost of borrowing in certain markets. The Metropolitan Government will carefully consider their value and effect on any future refinancing as a result of the lower-than-market coupon.
- Synthetic Debt.** The Metropolitan Government will consider the limited use of swaps, derivatives and other forms of synthetic debt as a hedge against future interest rate risk when appropriate and in accordance with state guidelines. The Metropolitan Government will not use structured products for speculative purposes. The Metropolitan Government will consider the use of structured products when it is able to gain a comparative borrowing advantage and is able to quantify and understand the potential risks or to achieve fixed and/or variable rate exposure targets.

Types of Debt

When the Metropolitan Government determines that the use of debt is appropriate, the following criteria will be utilized to evaluate the type of debt to be issued.

Structure

- General Obligation Bonds.** The Metropolitan Government may issue general obligation bonds

supported by the full faith and credit of the Metropolitan Government. General obligation bonds shall be used to finance capital projects that do not have independent creditworthiness and significant ongoing revenue streams. The Metropolitan Government may also use its general obligation pledge to support other bond issues, if such support improves the economics of the other bond issue and is used in accordance with these guidelines.

- Revenue Bonds.** The Metropolitan Government may issue revenue bonds, where repayment of the bonds will be made through revenues generated from other sources. Revenue bonds will typically be issued for capital projects which can be supported from project or enterprise-related revenues.

Duration

- Long-Term Debt.** The Metropolitan Government may issue long-term debt where it is deemed that capital improvements should not be financed from current revenues or short-term borrowings. Long-term borrowing will not be used to finance current operations or normal maintenance. Long-term debt will be self-supporting and structured such that financial obligations do not exceed the expected useful life of the project.
- Short-Term Debt.** Short-term borrowing may be utilized for construction financing, the temporary funding of operational cash flow deficits or anticipated revenues (defined as an assured source with the anticipated amount based on conservative estimates) subject to the following policies:
 - Bond Anticipation Notes (BANs)* in the form of Commercial Paper shall be used only for the purpose of providing financing for the cost of all or any of the public purposes for which Bonds have been authorized and for the payment of principal of outstanding commercial paper.
 - Revenue Anticipation Notes (RANs) and Tax Anticipation Notes (TANs)* shall be issued only to meet cash flow needs consistent with a finding by bond counsel that the sizing of the issue fully conforms to Federal IRS and state requirements and limitations.
 - Lines of Credit* shall be considered as an alternative to other short-term borrowing options. The lines of credit shall be structured to limit concerns as to the Internal Revenue Code.
 - Other Short-Term Debt* may be used when it provides an interest rate advantage or as interim financing until market conditions are more favorable. The Metropolitan Government will determine and utilize the least costly method for short-term borrowing. The Metropolitan Government may issue short-term debt when there is a defined repayment source or amortization of principal.

90 Debt Service Funds-At a Glance

Refinancing Outstanding Debt

The Director of Finance for the Metropolitan Government, with assistance from the Metropolitan Government's Financial Advisor, shall have the responsibility to analyze outstanding bond issues for refunding opportunities. The Metropolitan Government will consider the following issues when analyzing possible refunding opportunities:

- 1. Debt Service Savings.** The Metropolitan Government establishes a minimum present value savings threshold of 3.5% of the refunded bond principal amount. The present value savings will be net of all costs related to the refinancing. If present value savings is less than 3.5%, the Metropolitan Government may consider the option value captured as a percent of total savings. If the option value exceeds 70% and present value savings is less than 3.5%, the Metropolitan Government may opt to complete a refunding. The decision to take savings on an upfront or deferred basis must be explicitly approved by the Metropolitan Government.
- 2. Restructuring.** The Metropolitan Government will refund debt when it is in the best financial interest of the Metropolitan Government to do so. Such refunding will be limited to restructuring to meet unanticipated revenue expectations, achieve cost savings, mitigate irregular debt service payments, release reserve funds or remove unduly restrictive bond covenants.
- 3. Term of Refunding Issues.** The Metropolitan Government will refund bonds within the term of the originally issued debt. However, the Metropolitan Government may consider maturity extension, when necessary to achieve a desired outcome, provided that such extension is legally permissible. The Metropolitan Government may also consider shortening the term of the originally issued debt to realize greater savings. The remaining useful life of the financed facility and the concept of inter-generational equity should guide this decision.
- 4. Escrow Structuring.** The Metropolitan Government shall utilize the least costly securities available in structuring refunding escrows. A certificate will be provided by a third party agent, who is not a broker-dealer stating that the securities were procured through an arms-length, competitive bid process (in the case of open market securities), that such securities were more cost effective than State and Local Government Obligations (SLGS), and that the price paid for the securities was reasonable within Federal guidelines. Under no circumstances shall an underwriter, agent or financial advisor sell escrow securities to the Metropolitan Government from its own account.
- 5. Arbitrage.** The Metropolitan Government shall take all necessary steps to optimize escrows and to avoid negative arbitrage in its refunding.