

THE CITY OF
COLUMBUS



A Report on Its Bonds and Notes Outstanding

AT JUNE 30, 2019 AND JUNE 30, 2020



ISSUED BY
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City Auditor
August 5, 2020

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RATINGS

RATINGS

The City's bond ratings are shown in the following table. These G.O. ratings were confirmed during the City's last public offering.

Type	Agency Rating		
	Moody's	Standard & Poor's	Fitch
General Obligation <i>Fixed Rate Bonds</i>	Aaa	AAA	AAA
2006 Sewer System <i>Adjustable Rate G.O. Bonds</i>	Aaa/VMIG1	AAA/A-1+	AAA/F1+
2014 Ref. Sewer System <i>Fixed Rate Revenue Bonds</i>	Aa1	AA+	AA
2015 Ref. Sewer System <i>Fixed Rate Revenue Bonds</i>	Aa1	AA+	N/A
2008B Sewer System <i>Adjustable Rate Revenue Bonds</i>	Aa1/VMIG1	AA+/A-1+	AA/F1+

Liquidity needs for the 2008 Sewer System Series B Adjustable Rate Revenue Bonds and 2006 Sewer System Adjustable Rate G.O. Bonds are provided by the City's Treasury Investment Portfolio, which at June 30, 2020 was \$2.179 billion.



SYNOPSIS

SYNOPSIS

- 1 The City continues to meet all legal requirements imposed by state and local statutes regarding its outstanding bonds and notes.
- 2 Financial debt margins for non-enterprise general obligation debt and income tax coverage ratios meet requirements.
- 3 The City continues to meet debt coverage requirements for both revenue and general obligation bonds of the City's enterprises.

The City operates five enterprises: a Water system; a Sanitary Sewer system; a Storm Sewer system; an Electricity system; and two City-owned parking garages. The Sanitary Sewer enterprise has both revenue and general obligation bonds outstanding. The Water, Storm Sewer, and Electric enterprises have only general obligation bonds outstanding. The Garage enterprise has no outstanding debt obligations. The Water, Sanitary and Storm Sewer enterprises have loans outstanding administered by the Ohio Water Development Authority (OWDA).

- 4 Remaining unissued amounts and purposes of debt authorized by voters in 2013, 2016 and 2019 are shown in the following table.

As of June 30, 2020 (in thousands)						
	Date Authorized	Total Authorized	Issued in 2013-2018	Unissued as of 6/30/2019	Issued in 2019	Unissued as of 6/30/2020*
Safety and health	2013	\$52,500	\$52,500	\$ —	\$ —	\$ —
Recreation and parks	2013	123,910	123,910	—	—	—
Public service	2013	220,300	220,300	—	—	—
Public utilities	2013	445,295	293,370	151,925	72,200	79,725
Safety and health	2016	70,000	39,100	30,900	23,150	7,750
Recreation and parks	2016	110,000	49,735	60,265	24,370	35,895
Public service	2016	310,000	279,630	30,370	30,370	—
Public utilities	2016	460,000	19,595	440,405	93,800	346,605
Safety and health	2019	205,000	—	205,000	—	205,000
Recreation and parks	2019	100,000	—	100,000	—	100,000
Public service	2019	425,000	—	425,000	28,930	396,070
Public utilities	2019	250,000	—	250,000	—	250,000
Neighborhood development	2019	50,000	—	50,000	—	50,000
		\$2,822,005	\$1,078,140	\$1,743,865	\$272,820	\$1,471,045

*The City expects to hold a new money sale in fourth quarter, 2020.

- 5 Of the City's general obligation bonds and long-term notes outstanding at June 30, 2020, \$2.17 billion, or 73.75% of the total of \$2.94 billion, matures within 10 years.

Of the revenue bonds outstanding at June 30, 2020, \$154.8 million, or 42.04% of the total of \$368.2 million, matures within 10 years¹.

Of the City's total outstanding bonds and long-term debt outstanding at June 30, 2020, 70.22% matures within 10 years¹.

Please see the following tables for more detailed information on the City's bond principal 10-year payout and percentage of voted (unlimited) and unvoted (limited) general obligation bonds outstanding.

¹ Excludes Component Unit (RiverSouth) lease revenue bonds (\$57,240,000); Notes (Tax Increment Finance "TIF")- long-term fixed (\$1,391,627); OWDA/EPA Water loans (\$313,539,614); OWDA/EPA Storm loans (\$1,210,818) and OWDA/EPA Sewer Loans (\$948,169,260).



LEGAL DEBT MARGINS

Legal Debt Margins

The following explanation of “Debt Limitations” has been extracted from the City’s Official Statement dated October 16, 2019.

Direct Debt Limitations

Section 133.05, Ohio Revised Code, provides that the net unvoted general obligation debt of the City, excluding certain “exempt debt,” (as further discussed below) shall never exceed five and one-half percent (5.50%) of the total value of all property in the City as listed and assessed for taxation. Section 133.05 further provides that the net general obligation debt of the City, including all voted and unvoted general obligation debt, but excluding exempt debt, shall never exceed ten and one-half percent (10.50%) of such total assessed valuation. The two limitations, referred to as the “direct debt limitations” may be amended from time to time by the General Assembly.

Ohio law provides that certain forms of municipal debt are exempt from the direct debt limitations (“exempt debt”). Exempt debt includes, among others, general obligation debt, to the extent that such debt is “self-supporting” (that is, revenues from the facilities financed are sufficient to pay applicable operating and maintenance expenses and related debt service and other requirements); bonds issued in anticipation of the collection of special assessments; revenue bonds; unvoted debt to the extent that the authorizing legislation includes covenants to appropriate annually from lawfully available municipal income taxes in amounts necessary to pay debt service charges on the obligations; notes issued in anticipation of the collection of current revenues or in anticipation of the proceeds of a specific tax levy; notes issued for certain emergency purposes; and bonds issued to pay final judgments. Notes issued in anticipation of such bonds are also exempt from the direct debt limitations.

Indirect Debt Limitations: The Ten Mill Tax Limitation

Ohio law requires that general obligation bonded indebtedness cannot be incurred or renewed unless provision is made in the legislation authorizing such debt for the levy of an ad valorem property tax in an amount sufficient to pay the principal of and interest on such indebtedness when due. Ohio law also provides that the aggregate amount of such taxes that can be levied for all purposes without a vote of the electors cannot exceed ten mills per one dollar of assessed valuation.

With respect to unvoted general obligation debt, these two requirements — the requirement that provision be made for the levy of taxes to support such debt and the requirement that the total amount of unvoted property taxes which can be levied cannot exceed ten mills per one dollar of valuation — have been construed by the Ohio Supreme Court to create an indirect debt limitation on the issuance by a political subdivision of unvoted general obligation debt.

The ten mills, which may be levied without a vote of the electors, are allocated among the overlapping political subdivisions of the State pursuant to a statutory formula. This "inside" millage allocated to each political subdivision is required to be used first for the payment of debt service on unvoted general obligation debt of the subdivision, unless provision has been made for payment of the debt from other sources; second for partial police and fire pension requirements; and, the balance for other general fund purposes. To the extent this millage is required for debt service, the amount that would otherwise be available for general fund purposes is reduced.

A subdivision's allocation of inside millage can be increased by action of the County Budget Commission pursuant to statute only in the event additional millage is required for the payment of debt service on its unvoted general obligation debt and, in that case, the inside millage allocated to the other overlapping subdivisions would be reduced to bring the aggregate levies of inside millage within the ten mill limitation.

The ten mill limitation applies even if the debt service on tax-supported obligations is expected to be paid from special assessments, utility earnings or other sources. However, revenue bonds and notes, payable solely from specifically pledged revenues, are not included in calculating debt subject to this limitation since neither the general revenue nor the full faith and credit of the issuer is pledged for their payment.

In determining whether or not unvoted general obligation debt to be issued by the City is within the ten mill limitation, it is first necessary to determine how much millage has already been committed for the outstanding unvoted general obligation debt of the City and how much millage has been committed by each overlapping political subdivision for its outstanding unvoted general obligation debt. The amount of such committed millage for each political subdivision is that which will be required for all of such subdivision's outstanding unvoted general obligation debt for that fiscal year in which the debt service charges of that subdivision for such debt will be the highest. In the case of notes issued in anticipation of bonds, the debt service requirements estimated for the bonds anticipated by the notes are used to calculate the millage required.

The City overlaps several political subdivisions and it is therefore necessary to determine, with respect to each such subdivision, how much millage that subdivision has committed for its outstanding unvoted general obligation debt. The aggregate millage that has been committed by that combination of overlapping subdivisions that yields the highest total of committed millage thus determines the millage within the ten mill limitation which is available and can be committed to service additional unvoted general obligation debt.

Such determinations are made by the County Auditor who has certified to the City that there is sufficient uncommitted millage within the ten mill limitation to service the City's unvoted general obligation debt.

Direct Debt Limitations

Statement of Legal Debt Margins As of June 30, 2020			
Line		Total debt limit 10.5%	Total unvoted debt limit 5.5%
1	Total assessed property value in:		
2	Franklin County	\$16,537,838,210	16,537,838,210
3	Fairfield County	164,863,300	164,863,300
4	Delaware County	298,217,280	298,217,280
5	Total (lines 2 through 4)	\$17,000,918,790	17,000,918,790
6	Debt limit 10.5% & 5.5% of assessed value (x line 5)	\$1,785,096,473	935,050,533
7	Total Outstanding Bond and Note Debt		
8	Bonds & Long-Term Notes	\$4,628,815,786	2,165,930,786
9	Non-Enterprise Long-Term Notes- TIF	1,391,627	1,391,627
10	Short-Term Note	—	—
11	Total (lines 8 through 10)	4,630,207,413	2,167,322,413
12	Exemptions:		
13	G.O. Assessment Bonds (Non-Enterprise)	—	—
14	G.O. Limited Enterprise Revenue Supported Debt- Unvoted	—	—
15	Water Bonds	—	—
16	Sanitary Sewer Bonds	12,688,461	12,688,461
17	Sanitary Sewer Assessment Notes	—	—
18	Storm Sewer Bonds	9,935,000	9,935,000
19	Electric Bonds	29,438	29,438
20	Electric Assessment Notes	—	—
21	Garage Notes	—	—
22	Total (lines 13 through 21)	22,652,899	22,652,899
23	G.O. Unlimited Enterprise Revenue Supported Debt-Voted		
24	Water Bonds	653,195,000	—
25	Water Note	—	—
26	Sanitary Sewer Bonds	558,570,000	—
27	Storm Sewer Bonds	94,480,000	—
28	Electric Bonds	10,450,000	—
29	Total (lines 24 through 28)	1,316,695,000	—
30	G.O. Other		
31	Income Tax Pledged- Limited (unvoted)	333,665,000	333,665,000
32	Loan- State Capital Improvement Fund & SIB	10,733,195	10,733,195
33	OP&F Pension Bonds	—	—
34	Total (lines 31 through 33)	344,398,195	344,398,195
35	Revenue Bonds and Other		
36	Water Bonds	—	—
37	Water OWDA/EPA Loans	313,539,614	313,539,614
38	Sanitary Sewer- Bonds	368,190,000	368,190,000
39	Sanitary Sewer OWDA/EPA Loans	948,169,260	948,169,260
40	Storm Sewer OWDA/EPA Loans	1,210,818	1,210,818
41	Component Unit- RiverSouth	57,240,000	57,240,000
42	Non-Enterprise -TIF Notes	1,391,627	1,391,627
43	Total (lines 36 through 42)	1,689,741,319	1,689,741,319
44	Total Exemptions (lines 22, 29, 34, and 43)	3,373,487,413	2,056,792,413
45	Net Debt (line 11 less line 44)	1,256,720,000	110,530,000
45a	Debt Service Fund Balances Re: Non-Enterprise G.O. Bonds	145,585,356	110,530,000
46	Net Debt subject to 10% and 5% limitation (line 45 minus line 45a)	1,111,134,644	—
47	Total Legal Debt Margin (line 6 less line 46)	\$673,961,829	\$935,050,533
48	Percent of Net Debt to Assessed Value (line 46 / line 5)	6.54%	0.00%
49	Percent of Legal Debt Limit	10.50%	5.50%
50	Percent of Legal Debt Margin (line 47 / line 5)	3.96%	5.50%

Source: City of Columbus, Ohio, City Auditor

Indirect Debt Limitation

Computation of Direct and Overlapping Debt

Debt of the City, authorized by the Council but not by a vote of the electors, is subject to overlapping restrictions with each respective county and school district. Limitations apply to each county total and should not be considered cumulatively. Total debt service charges for any one year of all overlapping debt must not exceed ten mills (1%) of the assessed property value. This determination is made by the respective county auditors each time a subdivision proposes to issue unvoted debt.

The following table represents the estimated inside millage requirements for the City and its overlapping subdivisions as of December 31, 2019 for Franklin County, Fairfield County, and Delaware County. Other political subdivisions within Franklin, Fairfield or Delaware County may issue unvoted general obligation debt which would cause the requirements below to change. However, any such issues, including those of the City, will not exceed the indirect debt limit under Ohio law.

Political Subdivision of State of Ohio	Mills Required ⁽¹⁾		
	Franklin County	Fairfield County	Delaware County
Direct			
City of Columbus	3.2285	4.3489	4.3490
Overlapping			
County	0.7471	1.3681	0.4039
School District	2.4917	—	0.2089
Joint Vocational School District	—	0.0389	—
Solid Waste Authority of Central Ohio	0.2476	0.2475	0.2512
Township	2.0029	—	—
Total Millage Required	8.7178	6.0034	5.2130
Maximum Millage Permitted	10	10	10
Remaining Millage Capacity	1.2822	3.9966	4.7870

The City does not pay general obligation debt service from property taxes. General obligation debt service relating to enterprise funds is paid from the respective enterprise fund. All other general obligation debt service is paid from income taxes, certain charges for services, payments in lieu of taxes designated by the City for that purpose, and from special assessments.

(1) Mills required to pay debt service (principal and interest) for highest year during life of bonds. For Franklin County, the highest year for debt charges is 2025. For Delaware and Fairfield Counties, the highest year is 2021.



FINANCIAL DEBT MARGINS

Financial Debt Margins

General Obligation Bonds and Notes

Debt service on the City's non-enterprise general obligation bonds and notes, both voted and unvoted, is primarily paid from income tax. Other lesser resources, special assessments, a portion of recreation fees, and certain Internal Service Fund resources also provide debt service monies for certain general obligation bonds.

General obligation bonds and notes are legally supported by property taxes, either those taxes already levied (for unvoted debt) or those taxes that the City has authority to levy (for voted debt) but has assured the taxpayers that it will not do so. Property taxes presently levied by the City are used to support general fund operations. Therefore, in order to avoid reducing general fund resources and/or imposing additional property taxes it is not only prudent, but also very important that we maintain income tax debt service coverage ratios that will withstand the volatility of all the assumptions that go into projecting debt service needs 10 to 20 years into the future. These coverage ratios are, therefore, self-imposed disciplines.

The City maintains a minimum coverage ratio within its income tax debt service fund of 1.5 X debt service and other expenditure requirements for non-enterprise general obligation bonds. Coverage is defined as estimated incoming resources during a current year less estimated outgoing resources of the current year added to the available resources at the end of the previous year then divided by the debt service and other expenditure requirements.

The City projects the resources and planned debt activity over a ten-year period and maintains the coverage requirement throughout the projected period. The City recognizes that debt service requirements are fixed in place for many years, whereas, income tax collections can vary with economic cycles. Also, the income tax rate cannot be increased beyond its present rate of 2.5% without a vote of the City's electorate.

City voters approved an income tax rate increase from 2.0% to 2.5% in a special election held on August 4, 2009. The new rate became effective on October 1, 2009.

The City borrowed a total of \$29,500,000 through the issuance of bond anticipation notes in 2009, of which \$0 remains currently outstanding (redeemed May 27, 2020). The proceeds were used to acquire and construct an approximately 770-space parking garage located at the corner of Rich and Front Streets and an approximately 679-space parking garage located at the corner of Fourth and Elm Streets. The City paid debt service on these bonds from (i) special assessments which have been levied in order to pay a portion of the cost of the Fourth and Elm Garage, (ii) TIF revenues generated in the downtown area to pay a portion of the cost of the garages; and (iii) parking revenues received from the operation of the garages.

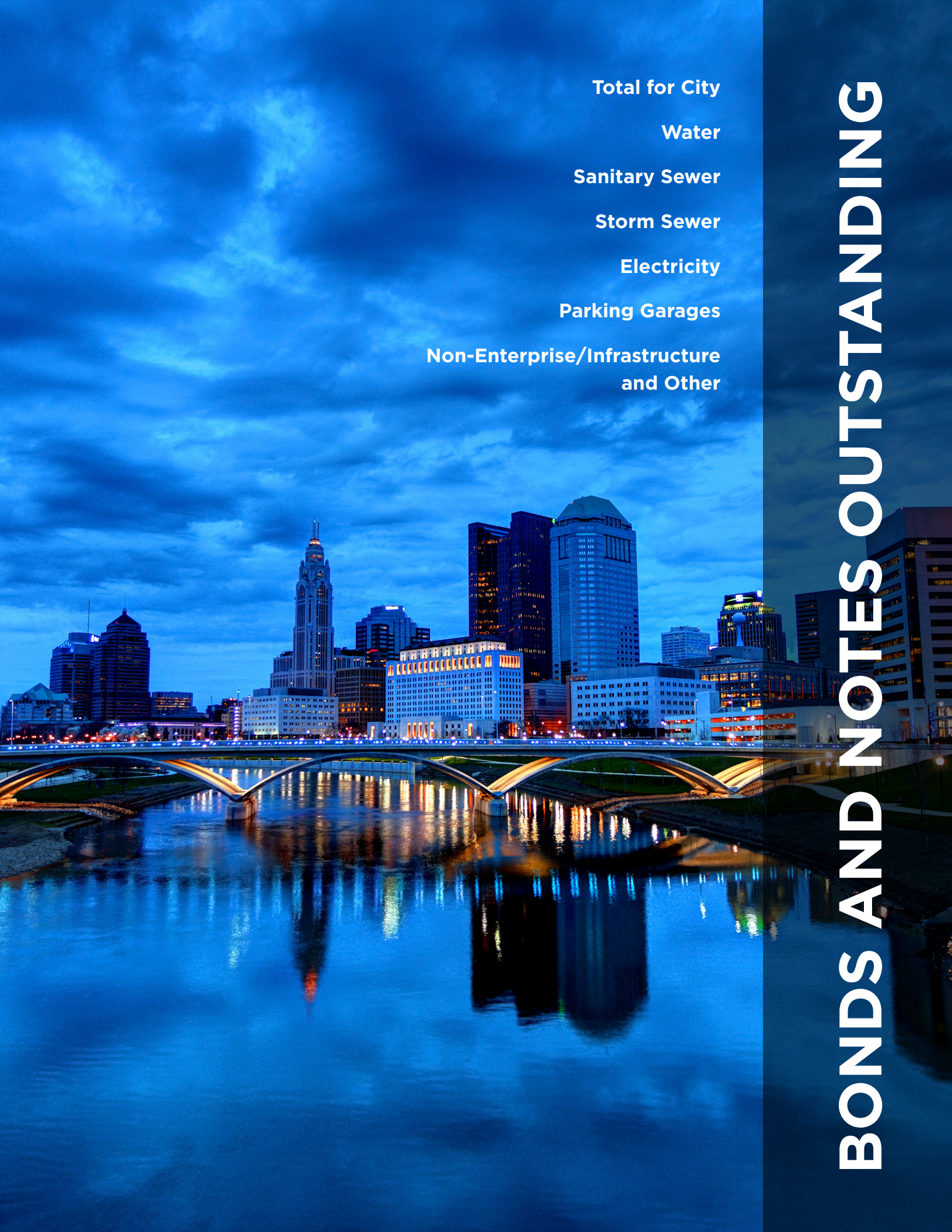
Financial Debt Margins

Revenue Bonds

The City operates five enterprise activities: a Water system, a Sanitary Sewer system, a Storm Sewer system, an Electricity system, and two City-owned parking garages. Only the Sanitary Sewer Enterprise has revenue bonds outstanding. Water, Sanitary Sewer and Storm Sewer Enterprise systems have loans outstanding administered by Ohio Water Development Authority (OWDA).

The City is in compliance with all requirements contained in the enterprises' bond indentures.

Revenue bonds of the Sanitary Sewer Enterprise are supported solely by user charges, excluding assessment bonds and notes which are supported by respective assessments. Tax revenues are not used. As indicated in the past, the higher the debt, the higher the user rates.



Total for City

Water

Sanitary Sewer

Storm Sewer

Electricity

Parking Garages

Non-Enterprise/Infrastructure
and Other

BONDS AND NOTES OUTSTANDING

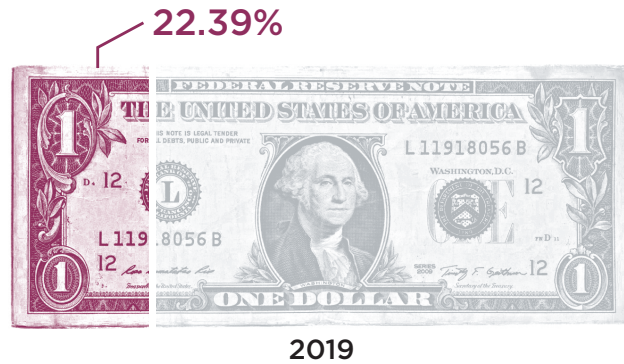
TOTAL FOR CITY

Total outstanding bonds and notes of the City of Columbus at June 30, 2020 were:

\$4,630,207,413

In 2019, approximately TWENTY-TWO CENTS (22.39%) of every dollar of the City’s total revenue was directed toward payment of principal and interest on debt.

The weighted average interest rates⁽¹⁾ of the City’s total outstanding bonds and loans were:



Bond Type	6/30/19	6/30/20
General Obligation	4.0517%	4.1169%
Revenue	3.1968%	3.0541%
Combined	3.7340%	3.7257%

Following is additional current and ten-year historical data on the City’s TOTAL outstanding bonds and notes.

(1) (Face) or (coupon) rates; not reflecting the benefit of premium received.

Outstanding Bonds and Notes A Recap by Major Purpose (June 30, 2020)

Sanitary Sewer	\$1,887,617,721	40.8%
Water	966,734,614	20.9
Streets	951,665,000	20.5
Recreation and Parks	260,010,000	5.6
Public Safety and Health	179,805,000	3.9
Storm Sewer	105,625,818	2.3
Development	98,680,000	2.1
Component Unit (RiverSouth)	57,240,000	1.2
Electricity	30,424,438	0.7
Information Services	25,390,000	0.5
Fleet Management	24,330,000	0.5
Refuse Collection	17,565,000	0.4
General Government (incl. Muni Ct, facilities)	12,995,000	0.3
State Infrastructure Bank Loans (Hamilton Rd S-Curve improvements)	7,105,000	0.2
Ohio Public Works Commission Loans (street improvements)	3,628,195	0.1
Notes (TIFs) long-term fixed	1,391,627	0.0
Total	\$4,630,207,413	100.0%

Total Bonds and Notes Outstanding

(in millions of dollars)

	6/30/19	6/30/20
General obligation:		
Voted	\$2,386	\$2,463
Unvoted	499	477
	\$2,885	\$2,940
Revenue	\$1,702	\$1,690
Total	\$4,587	\$4,630

At June 30, 2020, 84% of the City’s general obligation debt was authorized by a direct vote of the electorate (83% at June 30, 2019).

Bond and Note Principal 5, 10 and 15-Year Payout (As of June 30, 2020)

Certain characteristics of the City's long-term debt are shown in the following table.

	General Obligations	Special (Revenue) Obligations	Total
Non-Enterprise			
Amount Outstanding	\$1,581,173,195	\$ — ⁽¹⁾	\$1,581,173,195 ⁽¹⁾
% due within 5 years	45.32%	—	45.32%
% due within 10 years	80.68%	—	80.68%
% due within 15 years	97.84%	—	97.84%
Water Enterprise			
Amount Outstanding	\$653,195,000	\$ — ⁽²⁾	\$653,195,000 ⁽²⁾
% due within 5 years	32.86%	—	32.86%
% due within 10 years	66.01%	—	66.01%
% due within 15 years	90.15%	—	90.15%
Sanitary Sewer Enterprise			
Amount Outstanding	\$571,258,461	\$368,190,000 ⁽³⁾	\$939,448,461 ⁽³⁾
% due within 5 years	33.25%	6.65%	22.83%
% due within 10 years	63.22%	42.04%	54.92%
% due within 15 years	86.44%	100.00%	91.76%
Storm Sewer Enterprise			
Amount Outstanding	\$104,415,000	\$ — ⁽⁴⁾	\$104,415,000 ⁽⁴⁾
% due within 5 years	44.01%	—	44.01%
% due within 10 years	73.92%	—	73.92%
% due within 15 years	90.98%	—	90.98%
Electricity Enterprise			
Amount Outstanding	\$30,424,438	\$ —	\$30,424,438
% due within 5 years	38.12%	—	38.12%
% due within 10 years	76.48%	—	76.48%
% due within 15 years	98.92%	—	98.92%
Total			
Amount Outstanding	\$2,940,466,094	\$368,190,000	\$3,308,656,094
% due within 5 years	40.09%	6.65%	36.37%
% due within 10 years	73.75%	42.04%	70.22%
% due within 15 years	93.69%	100.00%	94.39%

(1) Excludes Component Unit (RiverSouth) lease revenue bonds (\$57,240,000) and Notes (TIFs) - long-term fixed (\$1,391,627).

(2) Exclusive of Water Ohio Water Development Authority Loans of \$313,539,614.

(3) Exclusive of Sanitary Sewer Ohio Water Development Authority Loans of \$948,169,260.

(4) Exclusive of Storm Sewer Ohio Water Development Authority Loans of \$1,210,818.

General Obligation Bonds and Notes % Voted-Unlimited vs. % Unvoted-Limited (As of June 30, 2020)

Certain characteristics of the City's general obligation bonds are shown in the following table.

	Voted Unlimited	Unvoted Limited	Total
Non-Enterprise			
Amount Outstanding	\$1,129,690,000	\$451,483,195	\$1,581,173,195
Percentage (%)	71.45%	28.55%	100.00%
Water Enterprise			
Amount Outstanding	\$653,195,000	\$ —	\$653,195,000
Percentage (%)	100.00%	0.00%	100.00%
Sanitary Sewer Enterprise			
Amount Outstanding	\$558,570,000	\$12,688,461	\$571,258,461
Percentage (%)	97.78%	2.22%	100.00%
Storm Sewer Enterprise			
Amount Outstanding	\$94,480,000	\$9,935,000	\$104,415,000
Percentage (%)	90.49%	9.51%	100.00%
Electricity Enterprise			
Amount Outstanding	\$26,950,000	\$3,474,438	\$30,424,438
Percentage (%)	88.58%	11.42%	100.00%
Total			
Amount Outstanding	\$2,462,885,000	\$477,581,094	\$2,940,466,094
Percentage (%)	83.76%	16.24%	100.00%

Total for City Percent of Total Revenues Directed Towards Debt Service For the Years Ended December 31 (in thousands, except %)

	Revenues ⁽¹⁾	Debt Service ⁽²⁾⁽³⁾	% of Revenues Directed Towards Debt Service
2010	\$1,637,123	\$338,410	20.67%
2011	1,704,416	335,371	19.68
2012	1,733,457	361,934	20.88
2013	1,753,583	376,808	21.49
2014	1,769,706	389,039	21.98
2015	1,817,892	431,300	23.73
2016	1,878,314	428,923	22.84
2017	1,989,414	450,729	22.66
2018	2,037,921	465,936	22.86
2019	2,185,840	489,395	22.39

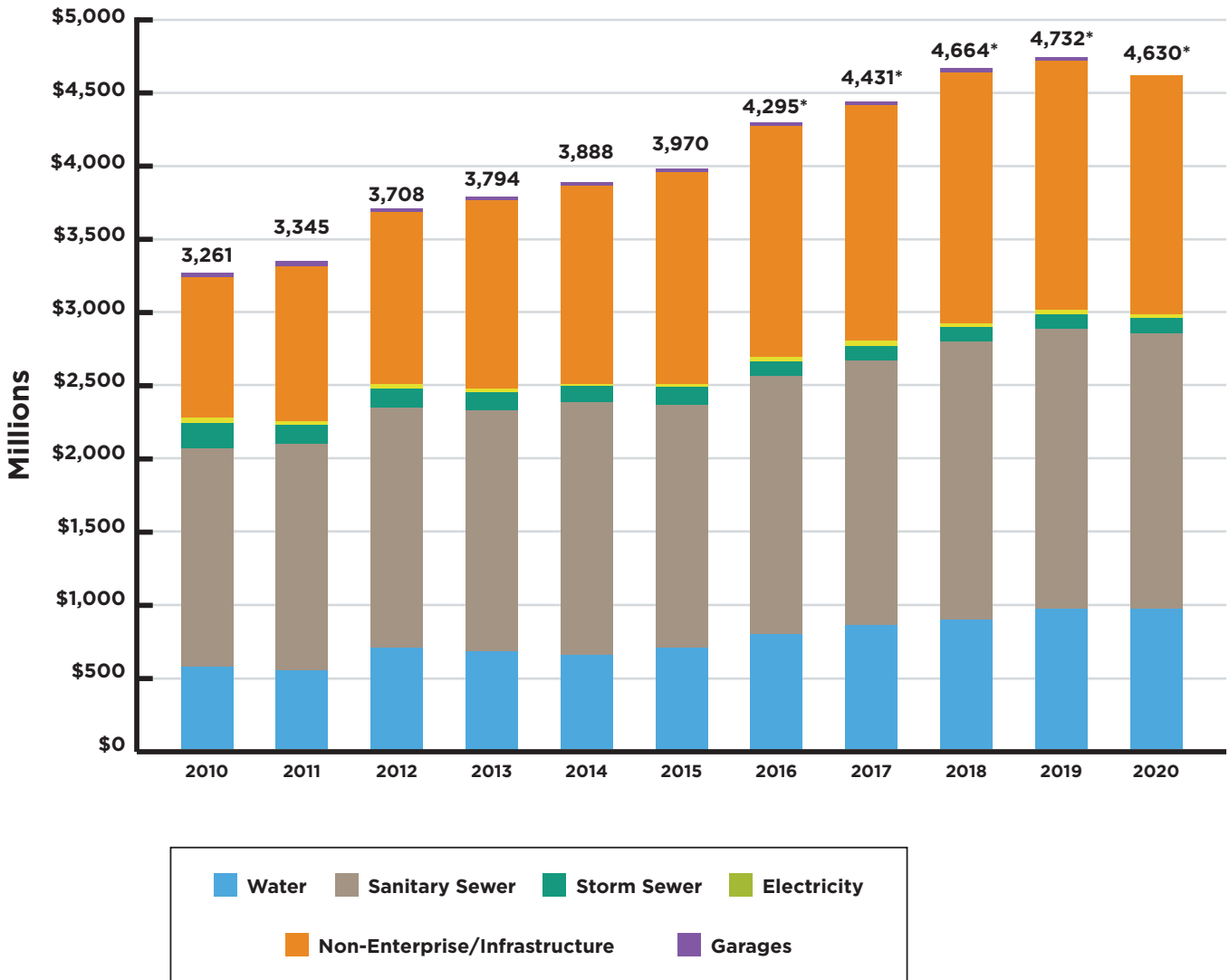
(1) Above revenues represent revenues of the City's General, Special Revenue and Debt Service funds and operating and non-operating revenues of the Enterprise funds. Internal Service funds revenues, since they are derived from other funds of the City, Capital Projects funds and Fiduciary funds are excluded.

(2) The above debt service represents all funds of the City and includes, therefore, debt service expenditures from the Governmental funds; also interest expense, interest capitalized (in years 2010-2018) and principal payments on bonds and loans in the proprietary funds. The City of Columbus ceased capitalizing interest in 2019 under GASB 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*.

(3) Debt service in 2019 includes \$335.595 million principal and \$153.800 million interest.

Total Outstanding Bonds and Notes

PERIODS ENDING DECEMBER 31, 2010-2019 AND JUNE 30, 2020



* Years prior to 2016 - Excludes \$10 million special obligation notes and bonds limited to revenues from three TIFs and only if such revenues are available.

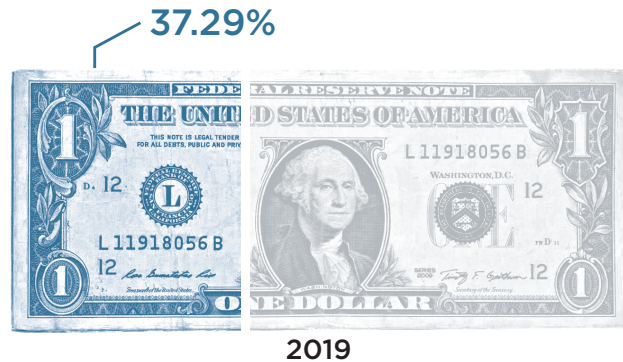
WATER

Outstanding bonds and notes attributable to the WATER Enterprise at June 30, 2020 were:

\$966,734,614

In 2019, of total Water Enterprise revenues, 37.29%, or approximately THIRTY-SEVEN CENTS of every dollar, was directed toward payment of principal and interest.

The weighted average interest rates⁽¹⁾ of outstanding bonds in the Water Enterprise were:



Bond Type	6/30/19	6/30/20
General Obligation	4.2304%	4.2820%
OWDA/EPA	2.5180%	2.4228%
Combined	3.7607%	3.7070%

Following is additional current and ten year historical data on the WATER Enterprise outstanding bonds and notes.

(1) (Face) or (coupon) rates; not reflecting the benefit of premium received.

Bonds and Notes Outstanding

(in millions of dollars)

Water

	6/30/19	6/30/20
General obligation:		
Voted	\$623	\$653
Unvoted	1	0
	\$624	\$653
Revenue:		
Ohio Water Development Authority Loans	\$258	\$314
Total	\$882	\$967

At June 30, 2020, 100% of the Water Enterprise general obligation debt was authorized by a direct vote of the electorate (99.8% at June 30, 2019).

SOURCE OF FUNDING: Water Enterprise revenues.

Water Enterprise Percent of Total Revenues Directed Towards Debt Service For the Years Ended December 31 (in thousands, except %)

	Revenues ⁽¹⁾	Debt Service ⁽²⁾⁽³⁾	% of Revenues Directed Towards Debt Service
2010	\$161,222	\$58,302	36.16%
2011	173,829	58,343	33.56
2012	183,554	67,207	36.61
2013	187,254	66,237	35.37
2014	185,855	70,430	37.90
2015	187,484	70,725	37.72
2016	201,991	69,833	34.57
2017	203,415	72,220	35.50
2018	202,917	73,712	36.33
2019	211,181	78,749	37.29

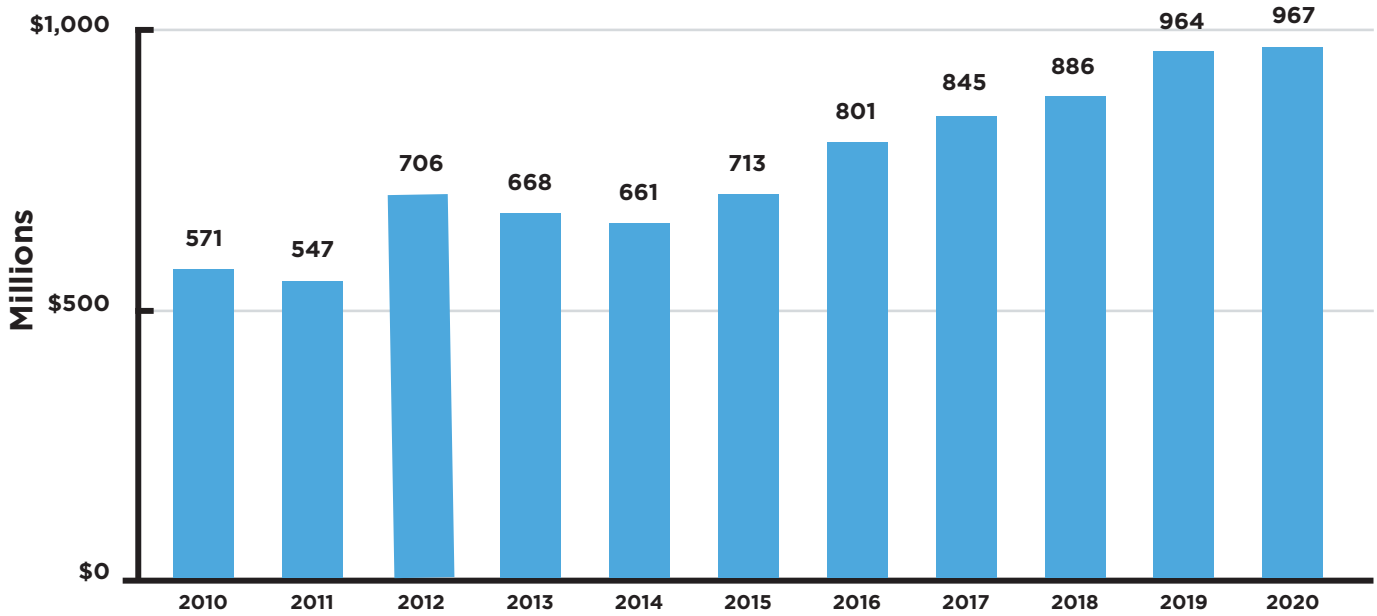
(1) Revenues include operating and non-operating revenues.

(2) Debt service includes interest expense, interest capitalized (in years 2010-2018), principal payments on bonds, and loans administered by the Ohio Water Development Authority. The City of Columbus ceased capitalizing interest in 2019 under GASB 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*.

(3) Debt service in 2019 includes \$55.069 million principal and \$23.680 million interest.

Water Enterprise

PERIODS ENDING DECEMBER 31, 2010-2019 AND JUNE 30, 2020



DT = Debt Type	DF = Debt Form
L = Limited	B = Bond
U = Unlimited	STN = Short Term Note
R = Revenue	LTN = Long Term Note
A = Assessment	

Water

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
08/25/2011	U	Series 2011A Ref Water	B	\$2,045,000		07/01/2020	5.0000%	1097-11
03/21/2012	U	Series 2012-1 Ref Water	B	6,050,000		07/01/2021	4.3529*	0222-12
03/21/2012	U	Series 2012-1 Ref Water	B	6,610,000		07/01/2022	4.3343*	0222-12
07/24/2012	U	Series 2012A Water	B	49,625,000	08/15/2022	02/15/2032	3.6750*	1211-12
09/26/2012	U	Series 2012-3 Ref Water	B	3,080,000		08/15/2022	5.0000	1763-12
09/26/2012	U	Series 2012-3 Ref Water	B	5,460,000		08/15/2022	5.0000	1763-12
06/13/2013	U	Series 2013-1 Ref Water	B	7,715,000	07/01/2023	07/01/2029	4.9650*	0131-13
06/13/2013	U	Series 2013-1 Ref Water	B	8,910,000	07/01/2023	07/01/2029	4.9652*	0131-13
06/13/2013	U	Series 2013-1 Ref Water	B	34,450,000	07/01/2023	07/01/2029	4.7820*	0131-13
06/13/2013	U	Series 2013-1 Ref Water	B	3,265,000		07/01/2023	5.0000	0131-13
06/13/2013	U	Series 2013-1 Ref Water	B	1,915,000	07/01/2023	07/01/2029	4.4282*	0131-13
09/04/2013	U	Series 2013A Water	B	6,460,000		08/15/2023	5.0000	1879-13
06/24/2014	U	Series 2014A Water	B	29,850,000	02/15/2024	02/15/2035	4.1345*	1117-14
09/04/2014	U	Series 2014-5 Ref Water	B	1,445,000		08/15/2023	5.0000	1700-14
09/04/2014	U	Series 2014-5 Ref Water	B	16,590,000	08/15/2024	08/15/2028	4.2075*	1700-14
08/13/2015	U	Series 2015A Water	B	4,195,000	07/01/2025	07/01/2036	3.6075*	1580-15
08/13/2015	U	Series 2015A Water	B	52,615,000	07/01/2025	07/01/2036	3.6059*	1579-15
03/07/2016	U	Series 2016-1 Ref Water	B	3,140,000	07/01/2026	07/01/2030	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Water	B	3,630,000	07/01/2026	07/01/2030	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Water	B	9,390,000	07/01/2026	07/01/2031	4.2220*	0234-16
03/07/2016	U	Series 2016-1 Ref Water	B	18,840,000		07/01/2026	4.9968*	0234-16
03/07/2016	U	Series 2016-1 Ref Water	B	4,410,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Water	B	13,950,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Water	B	2,040,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Water	B	3,820,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Water	B	3,140,000		07/01/2026	5.0000	0234-16
08/04/2016	U	Series 2016A Water	B	67,500,000	08/15/2025	08/15/2037	3.1667*	1607-16
11/16/2016	U	Series 2016-3 Ref Water	B	4,530,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Water	B	14,440,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Water	B	2,105,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Water	B	3,920,000	02/15/2027	02/15/2028	5.0000	2411-16

DT = Debt Type	DF = Debt Form
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A = Assessment	

Water *(continued)*

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
11/16/2016	U	Series 2016-3 Ref Water	B	\$3,160,000	02/15/2027	02/15/2028	5.0000%	2411-16
11/16/2016	U	Series 2016-3 Ref Water	B	2,095,000		02/15/2027	5.0000	2411-16
10/25/2017	U	Series 2017A Water	B	42,330,000	04/01/2027	04/01/2038	3.7258*	1790-17
11/16/2017	U	Series 2017-1 Water	B	46,580,000	10/01/2027	04/01/2029	4.6008*	2660-17
11/16/2017	U	Series 2017-1 Water	B	1,890,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Water	B	2,190,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Water	B	12,385,000	10/01/2027	04/01/2030	4.5709*	2660-17
11/16/2017	U	Series 2017-1 Water	B	3,325,000	10/01/2027	04/01/2031	4.3173*	2660-17
11/16/2017	U	Series 2017-1 Water	B	10,040,000	10/01/2027	04/01/2033	4.1723*	2660-17
10/17/2018	U	Series 2018A Water	B	50,320,000	10/01/2028	04/01/2039	5.0000	2434-18
10/16/2019	U	Series 2019A Water	B	72,200,000	04/01/2029	04/01/2040	5.0000	2246-19
10/16/2019	U	Series 2019-1 Ref Water Tax	B	9,925,000	04/01/2029	04/01/2033	2.6280*	2275-19
10/16/2019	U	Series 2019-1 Ref Water Tax	B	1,620,000	04/01/2029	04/01/2034	2.6820*	2275-19
Subtotal Water				\$653,195,000				

* Weighted average interest rate on the outstanding principal.

** The interest rates identified above are calculated using the actual coupon rates on each series of bonds or notes. The rates are not representative of the true interest costs to the City. As a result of low interest rates, the market for the sale of the City's bonds and notes has frequently produced bids at a stated coupon rate with a premium payable upon the sale of the securities, which creates a true interest cost (TIC) substantially less than the coupon rate.

Bond and Note Inventory List

AS OF JUNE 30, 2020

Water Loans Administered by Ohio Water Development Authority

Loan Date	Description	Principal Outstanding at 6/30/20	Final Maturity Date	Interest Rate
5/31/2007	Taylor Road Water Tank	\$2,109,403	07/01/2028	3.00%
3/27/2008	Champion Ave. Water Main	1,618,881	01/01/2029	3.00
4/24/2008	Livingston Ave. 24-inch Water Line	1,838,924	01/01/2029	3.00
4/24/2008	Far East Water Line Improvements Pt. 2	1,184,408	01/01/2029	3.00
6/26/2008	University Area Water Main Impr.	1,368,330	07/01/2029	3.00
4/30/2009	Hap Cremean Water Plant Lagoon	1,092,904	01/01/2030	4.00
6/25/2009	Mound/Harrisburg Pike Water Main	2,373,266	07/01/2031	3.00
7/30/2009	Mt. Vernon Area Distribution System	383,821	07/01/2030	3.68
8/27/2009	Doherty Road Waterline Improvements	240,381	07/01/2030	3.76
10/29/2009	Gibbard Avenue Waterlines	320,229	07/01/2030	3.42
10/29/2009	Main Street Water Main Cleaning and Lining	682,340	07/01/2030	3.42
10/29/2009	PAWP Sludge Removal Project	1,427,978	01/01/2030	3.42
12/10/2009	Brown Road Waterline	1,754,468	01/01/2031	3.20
12/10/2009	South Wellfield Expansion Phase 1A	1,052,890	07/01/2030	3.20
12/10/2009	Markison Ave Area Water Line Impr.	705,773	07/01/2030	3.70
12/10/2009	Group Three Water Line Impr.	1,303,985	01/01/2031	3.70
12/10/2009	Lazelle Road 2MG Water Tank	2,582,033	07/01/2031	3.20
12/10/2009	Upground Reservoir Electrical Service	1,268,267	01/01/2031	3.70
03/25/2010	Long Street Water Main Rehab.	528,856	01/01/2031	3.34
04/29/2010	HCWP Lagoon Modifications	1,038,582	01/01/2031	3.36
05/27/2010	Dublin Rd. 12-inch Water Main Improvement	1,152,470	07/01/2031	3.39
09/30/2010	PAWP Sludge Disposal	4,829,609	07/01/2032	3.17
09/24/2015	Deland Ave Area Water Line Imps	1,923,383	07/01/2036	2.24
10/29/2015	Berrell Avenue Area Water Line Imps	2,160,284	01/01/2037	2.18
12/10/2015	Simpson Drive Area Water Line Improvements	2,442,059	07/01/2036	2.14
12/10/2015	East Deshler Avenue Area Water Line Improvements	2,040,838	07/01/2036	2.14
01/28/2016	Fenway Road Area Water Line Improvements	1,601,854	01/01/2037	2.04
01/28/2016	Dering Avenue Area Water Line Improvements	2,416,939	07/01/2037	2.04
02/25/2016	Hap Cremean Water Plant Bulk Chemical Improvements	4,012,358	01/01/2037	1.85
09/29/2016	DRWP Ion Exchange & Plant Upgrades	101,067,824	01/01/2039	2.51
09/29/2016	DRWP Ion Exchange & Plant Upgrades	61,147,708	07/01/2039	2.51

Bond and Note Inventory List

AS OF JUNE 30, 2020

Water Loans Administered by Ohio Water Development Authority *(continued)*

Loan Date	Description	Principal Outstanding at 6/30/20	Final Maturity Date	Interest Rate
12/08/2016	Shattuck Area Water Line Imps	\$3,098,765	07/01/2038	1.55%
01/26/2017	Argyle Drive Water Line Improvements	2,445,017	01/01/2038	2.10
01/26/2017	Lamont Ave Area Waterline Improvements	2,172,803	01/01/2038	2.10
07/27/2017	Acton Road Water Line	3,185,148	01/01/2039	2.00
07/27/2017	Maize Rd & 8th Area Water Line Improvements	2,933,665	07/01/2038	2.00
01/25/2018	Dewberry Rd Area Water Line Improvements	3,504,909	01/01/2040	1.83
01/25/2018	Silver Dr Area Water Line Improvements	3,998,823	07/01/2039	1.83
02/22/2018	Scottwood Rd Water Line Improvements	3,122,389	01/01/2040	1.81
03/29/2018	Stephen Drive Water Line Improvements	2,674,269	07/01/2039	1.95
06/28/2018	Hap Cremean Water Plant UV Detection	12,106,347	07/01/2041	2.15
05/31/2018	Dublin Rd WTP UV Disinfection	9,958,043	07/01/2042	2.15
03/29/2018	Hap Cremean Water Plant Standby Power	8,239,131	07/01/2040	1.95
06/28/2019	Arcadia Area WL	3,557,601	01/01/2040	2.15
07/26/2018	Noe-Bixby Rd Waterline Imps	4,008,603	01/01/2040	2.15
07/26/2018	Sale Rd Waterline Imps	3,711,875	01/01/2040	2.15
07/26/2018	Dublin Rd Plant Standby Power	8,084,555	01/01/2041	2.15
09/27/2018	Dundee Avenue Area Water Line Imps	3,005,010	01/01/2040	2.12
10/25/2018	Enhanced Meter Equipment	5,093,807	01/01/2041	2.18
03/28/2019	Dresden St Area Waterline Imps	2,753,862	07/01/2040	2.12
04/28/2019	Union Ave Area Water Line Imps	2,194,729	01/01/2041	2.09
07/25/2019	Mound St Booster Station Discharge Line	2,000,477	07/01/2041	1.50
07/25/2019	Olentangy River Rd Water main Ph 1	1,687,742	01/01/2041	1.50
07/25/2019	Hap Cremean WTP Basin Concrete Rehab	6,398,068	01/01/2042	1.50
12/12/2019	S. Broadleigh Rd. Area WL Imp	835,819	01/01/2042	1.10
01/30/2020	Valleyview Dr Waterline Improvements	1,091,010	01/01/2042	1.17
01/30/2020	East Gates WL Improvements	1,008,692	01/01/2042	1.17
04/30/2020	Enhanced Metering (AMI) System & Installation	997,410	07/01/2045	0.92
Subtotal - Loans administered by OWDA		\$313,539,614		
TOTAL WATER		\$ 966,734,614		

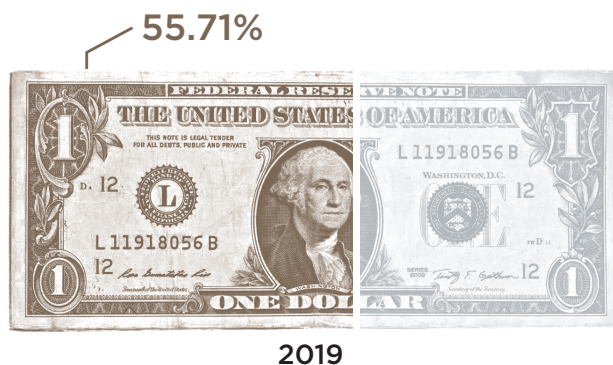
SANITARY SEWER

Outstanding bonds and notes attributable to the SANITARY SEWER Enterprise at June 30, 2020 were:

\$1,887,617,721

In 2019, of total Sanitary Sewer Enterprise revenues, 55.71%, or approximately FIFTY-SIX CENTS of every dollar, was directed toward payment of principal and interest.

The weighted average interest rates⁽¹⁾ of outstanding bonds and loans in the Sanitary Sewer Enterprise were:



Bond Type	6/30/19	6/30/20
General Obligation	3.8248%	3.9437%
Fixed Rate Revenue	4.7703%	4.7322%
Weekly Variable Rate Revenue	1.6181%	0.9027%
OWDA/EPA loan	2.7553%	2.6719%
Combined	3.4018%	3.3578%

Following is additional current and ten year historical data on the SANITARY SEWER Enterprise outstanding bonds and notes.

(1) (Face) or (coupon) rates; not reflecting the benefit of premium received.

Bonds and Notes Outstanding

(in millions of dollars)

Sanitary Sewer

	6/30/19	6/30/20
General obligation:		
Voted	\$517	\$558
Unvoted	13	13
	\$530	\$571
Revenue:		
Bonds	\$407	\$368
Ohio Water Development Authority Loans	967	948
	\$1,374	\$1,316
Total	\$1,904	\$1,887

At June 30, 2020, 98% of the Sanitary Sewer Enterprise general obligation debt was authorized by a direct vote of the electorate (98% at June 30, 2019).

SOURCE OF FUNDING: Sanitary Sewer Enterprise revenues.

Sanitary Sewer Enterprise Percent of Total Revenues Directed Towards Debt Service For the Years Ended December 31 (in thousands, except %)

	Revenues ⁽¹⁾	Debt Service ⁽²⁾⁽³⁾	% of Revenues Directed Towards Debt Service
2010	\$224,508	\$116,731	51.99%
2011	226,399	118,869	52.50
2012	238,194	122,085	51.25
2013	238,963	121,212	50.72
2014	233,438	123,943	53.09
2015	246,213	141,021	57.28
2016	252,778	138,143	54.65
2017	267,662	145,606	54.40
2018	278,553	152,753	54.84
2019	283,822	158,105	55.71

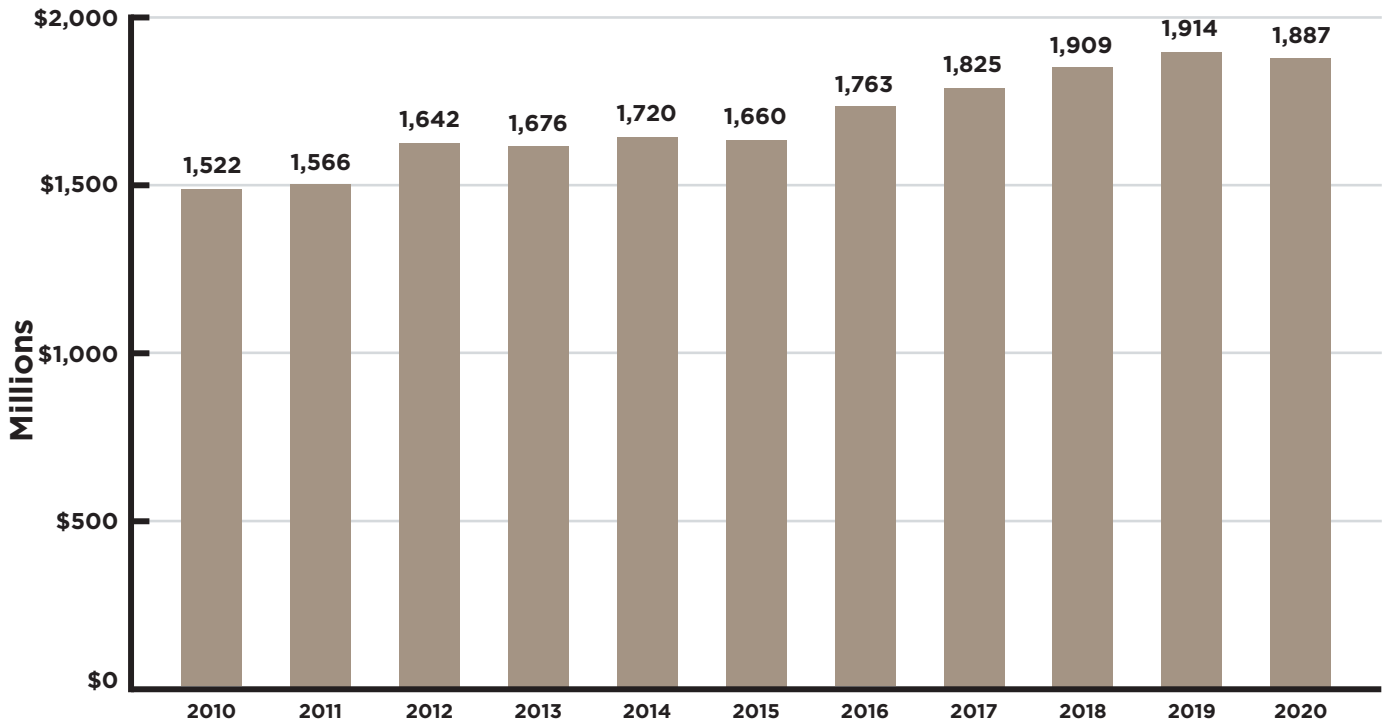
(1) Revenues include operating and non-operating revenues.

(2) Debt service includes interest expense, interest capitalized (in years 2010-2018), principal payments on bonds, and loans administered by the Ohio Water Development Authority. The City of Columbus ceased capitalizing interest in 2019 under GASB 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*.

(3) Debt service in 2019 includes \$101.304 million principal and \$56.801 million interest.

Sanitary Sewer Enterprise

PERIODS ENDING DECEMBER 31, 2010-2019 AND JUNE 30, 2020



DT = Debt Type	DF = Debt Form
L = Limited	B = Bond
U = Unlimited	STN = Short Term Note
R = Revenue	LTN = Long Term Note
A = Assessment	

Sanitary Sewer

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate***	Ordinance #
08/03/2006	U	Series 2006-1 Sanitary Sewer Adj	B	\$28,000,000		12/01/2026	0.9027%*	1373-06
01/30/2008	R	Series 2008B Adj Sanitary Sewer Rev	B	51,855,000		06/01/2032	0.9027*	2092-07
08/25/2011	U	Series 2011A Ref Sanitary Sewer	B	3,170,000		07/01/2021	5.0000	1097-11
03/21/2012	U	Series 2012-1 Ref Sanitary Sewer	B	3,125,000	07/01/2022	07/01/2023	3.9888*	0222-12
03/21/2012	U	Series 2012-1 Ref Sanitary Sewer	B	5,395,000	07/01/2022	07/01/2023	4.2623*	0222-12
07/24/2012	U	Series 2012A Sanitary Sewer	B	15,025,000	08/15/2022	02/15/2032	3.6750*	1210-12
09/26/2012	U	Series 2012-3 Ref Sanitary Sewer	B	2,690,000	02/15/2023	08/15/2025	4.0000*	1763-12
09/26/2012	U	Series 2012-5 Ref Sanitary Sewer Tax	B	6,990,000		08/15/2022	2.3302*	1765-12
10/30/2012	A	2012 Lockbourne San Sewer Spec Assmt	B	83,461		10/30/2022	2.7500	2260-12
06/13/2013	U	Series 2013-1 Ref Sanitary Sewer	B	12,460,000	07/01/2023	07/01/2029	4.9651*	0131-13
06/13/2013	U	Series 2013-1 Ref Sanitary Sewer	B	10,550,000	07/01/2023	07/01/2029	4.7820*	0131-13
06/13/2013	U	Series 2013-1 Ref Sanitary Sewer	B	1,120,000		07/01/2023	5.0000	0131-13
06/13/2013	U	Series 2013-1 Ref Sanitary Sewer	B	665,000	07/01/2023	07/01/2029	4.4361*	0131-13
09/04/2013	U	Series 2013A Sanitary Sewer	B	9,720,000		08/15/2023	5.0000	1880-13
06/24/2014	U	Series 2014A Sanitary Sewer	B	30,270,000	02/15/2024	02/15/2035	4.1345*	1116-14
09/04/2014	L	Series 2014-6 Ref Sanitary Sewer	B	9,670,000	08/15/2024	08/15/2025	4.6691*	1701-14
12/01/2014	R	Series 2014 Ref Sanitary Sewer Rev	B	166,400,000	12/01/2024	06/01/2031	4.5747*	2235-14
12/22/2015	R	Series 2015 Ref Sanitary Sewer Rev	B	149,935,000	06/01/2026	06/01/2032	4.9275*	0846-15
03/07/2016	U	Series 2016-1 Ref Sanitary Sewer	B	1,550,000		07/01/2023	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Sanitary Sewer	B	5,075,000	07/01/2026	07/01/2030	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Sanitary Sewer	B	2,755,000	07/01/2026	07/01/2031	4.1851*	0234-16
03/07/2016	U	Series 2016-1 Ref Sanitary Sewer	B	5,710,000		07/01/2026	4.9965*	0234-16
03/07/2016	U	Series 2016-1 Ref Sewer	B	4,270,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Sanitary Sewer	B	695,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Sanitary Sewer	B	6,160,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Sanitary Sewer	B	4,720,000		07/01/2026	5.0000	0234-16
03/07/2016	L	Series 2016-2 Ref Sanitary Sewer	B	2,935,000	07/01/2026	07/01/2027	4.5009*	0235-16
08/04/2016	U	Series 2016A Sanitary Sewer	B	130,705,000	08/15/2025	08/15/2037	3.1666*	1606-16
11/16/2016	U	Series 2016-3 Ref Sanitary Sewer	B	4,410,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Sanitary Sewer	B	715,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Sanitary Sewer	B	6,325,000	02/15/2027	02/15/2028	5.0000	2411-16

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R = Revenue	LTN = Long Term Note
A = Assessment	

Sanitary Sewer *(continued)*

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate***	Ordinance #
11/16/2016	U	Series 2016-3 Ref Sanitary Sewer	B	\$4,740,000	02/15/2027	02/15/2028	5.0000%	2411-16
11/16/2016	U	Series 2016-3 Ref Sanitary Sewer	B	2,120,000		02/15/2027	5.0000	2411-16
10/25/2017	U	Series 2017A Sanitary Sewer	B	61,975,000	04/01/2027	04/01/2038	3.7257*	1789-17
11/16/2017	U	Series 2017-1 Sanitary Sewer	B	14,105,000	10/01/2027	04/01/2029	4.6009*	2660-17
11/16/2017	U	Series 2017-1 Sanitary Sewer	B	3,055,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Sanitary Sewer	B	3,935,000	10/01/2027	04/01/2030	4.5502*	2660-17
11/16/2017	U	Series 2017-1 Sanitary Sewer	B	1,130,000	10/01/2027	04/01/2031	4.3186*	2660-17
11/16/2017	U	Series 2017-1 Sanitary Sewer	B	15,085,000	10/01/2027	04/01/2033	4.1720*	2660-17
10/17/2018	U	Series 2018A Sanitary Sewer	B	52,485,000	10/01/2028	04/01/2039	5.0000	2433-18
10/17/2018	U	Series 2018A Sanitary Sewer	B	10,425,000	10/01/2028	04/01/2039	5.0000	2435-18
10/16/2019	U	Series 2019A Sanitary Sewer	B	77,400,000	04/01/2029	04/01/2040	5.0000	2247-19
10/16/2019	U	Series 2019-1 Ref Sanitary Sewer Tax	B	3,090,000		04/01/2025	1.8520*	2275-19
10/16/2019	U	Series 2019-1 Ref Sanitary Sewer Tax	B	3,005,000	04/01/2029	04/01/2033	2.6289*	2275-19
10/16/2019	U	Series 2019-1 Ref Sanitary Sewer Tax	B	1,325,000	04/01/2029	04/01/2026	1.9950*	2275-19
10/16/2019	U	Series 2019-1 Ref Sanitary Sewer Tax	B	2,425,000	04/01/2029	04/01/2034	2.6820*	2275-19
Subtotal Sanitary Sewer				\$939,448,461				

* Weighted average interest rate on the outstanding principal.

** The average interest rate for the Series 2008B Adjustable Rate Sewer Revenue bonds for the first six months of 2020 was 0.9027% and 0.5749% since their inception. The average interest rate for the 2006 Sanitary Sewer G.O. Adjustable Rate bonds for the first six months of 2020 was 0.9027% and 0.8840% since their inception.

*** The interest rates identified above are calculated using the actual coupon rates on each series of bonds or notes. The rates are not representative of the true interest costs to the City. As a result of low interest rates, the market for the sale of the City's bonds and notes has frequently produced bids at a stated coupon rate with a premium payable upon the sale of the securities, which creates a true interest cost (TIC) substantially less than the coupon rate.

Sanitary Sewer Loans Administered by Ohio Water Development Authority

Loan Date	Description	Principal Outstanding at 6/30/20	Final Maturity Date	Interest Rate
10/30/1997	Incineration Improv. (Sludge Regulation)	\$ 4,352,170	07/01/2021	3.00%
04/29/1999	Southerly WWTP Final Clarifier	432,529	01/01/2021	3.00
12/16/1999	Cleveland Ave. Combined Sewer Rehab.	44,437	07/01/2020	3.00
12/16/1999	First Ave. Combined Sewer Rehab.	28,053	07/01/2020	3.00
01/27/2000	Mill/Town/McDowell Sewer	28,047	07/01/2020	3.00
01/27/2000	Sewer Maintenance Operation Center	147,273	01/01/2021	3.00
10/28/1999	Marsh Run Sanitary Subtrunk	92,458	07/01/2020	3.00
04/27/2000	SWWTP Effluent Disinfection	2,538,045	01/01/2022	3.00
08/31/2000	JPWWTP Electrical Upgrade	3,216,420	01/01/2023	3.00
09/28/2000	Sewerage Pumping Stations Telemetry	179,082	07/01/2021	3.00
09/28/2000	JPWWTP Sludge Handling (Phase 1)	41,286	01/01/2021	3.00
09/28/2000	WWTF I&C System (Phase 1)	310,076	01/01/2022	3.00
10/26/2000	Deshler Avenue	132,316	07/01/2021	3.00
10/26/2000	North Central Sewer	78,683	07/01/2021	3.00
10/26/2000	Nationwide Boulevard	181,314	07/01/2021	3.00
10/26/2000	Scioto Main Replacement	604,610	07/01/2021	3.00
12/14/2000	Gay/Pearl/Long Sewer Rehab.	140,856	07/01/2021	3.00
12/14/2000	Jackson Pike Headworks (Phase IA)	1,219,352	01/01/2022	3.00
06/28/2001	Miller Avenue Sewer Replacement	52,546	01/01/2022	3.00
08/30/2001	Sludge Holding System Improvements	4,006,756	01/01/2023	3.00
08/30/2001	WWTF I&C System (Phase 2)	5,461,322	01/01/2024	3.00
09/26/2001	JPWWTP Sludge Handling (Phase 2)	4,556,998	07/01/2023	3.00
09/26/2001	Driving Park Sewer Improvements	42,806	01/01/2022	3.00
10/25/2001	Third Street Combined Sewer Rehab	167,333	07/01/2022	3.00
10/25/2001	Rich Street Combined Sewer Rehab.	168,157	07/01/2022	3.00
10/25/2001	Rhoads Ave. Sanitary & Storm Sewer	187,697	07/01/2022	3.00
12/13/2001	Castle Rd. Force Main Discharge	67,243	07/01/2022	3.00
12/13/2001	Broad St. Combined Sewer Rehab.	338,704	07/01/2022	3.00
12/13/2001	Maize/Morse Rd. Sewer Improvement	840,241	01/01/2023	3.00
01/31/2002	WWTF Primary Sludge Pumping Sys.	521,739	07/01/2023	3.00
01/31/2002	WWTF I&C System (Phase 3)	520,745	01/01/2023	3.00

**Sanitary Sewer Loans Administered by
Ohio Water Development Authority (continued)**

Loan Date	Description	Principal Outstanding at 6/30/20	Final Maturity Date	Interest Rate
01/31/2002	Franklin-Main Interceptor Rehab. (Part 1)	\$132,823	07/01/2022	3.00%
02/28/2002	Blacklick Sanitary Sewer Interceptor	1,198,423	07/01/2023	3.00
05/30/2002	Jackson Pike Headworks (Phase IB)	5,145,088	01/01/2022	3.00
10/09/2002	Garden Road Sewer Rehab.	110,354	01/01/2023	3.00
10/09/2002	Walhalla Ravine Area, Parts A & B	848,311	07/01/2023	3.00
12/12/2002	Macon Alley Combined Sewer Rehab.	142,838	07/01/2023	3.00
12/12/2002	Fairwood Avenue Replacement Sewer	263,565	07/01/2023	3.00
12/12/2002	SWWTP Sludge Dewatering/Misc. Imps.	6,067,205	07/01/2025	0.91
03/27/2003	Sewer Maintenance Operation Center Ph II	4,503,952	07/01/2024	3.00
03/27/2003	Jackson Pike Headworks (Phase 2A)	976,109	07/01/2024	3.00
04/24/2003	Mohawk St. Combined Sewer Rehab.	338,415	07/01/2023	3.00
07/31/2003	Bulen Ave./Sycamore Street CSR	333,368	01/01/2024	3.00
07/31/2003	Blacklick Sanitary Sewer Interceptor (Ph. 2)	1,707,804	07/01/2025	3.00
08/28/2003	Maize/Morse Sanitary Sewer Rehab.	339,946	01/01/2024	3.00
08/28/2003	North Central Sewer (Supplement)	21,504	07/01/2021	3.00
09/25/2003	Castle Rd. Force Main Discharge (Supp.)	58,807	07/01/2022	3.00
10/30/2003	Big Walnut Augmentation, Part 1	52,650,182	01/01/2028	3.00
01/29/2004	JPWWTP Sludge Handling (Phase 3)	8,220,747	07/01/2026	3.00
01/29/2004	SWWTP New Headworks (Phase 2)	29,591,095	07/01/2027	3.00
04/29/2004	Sludge Holding System Improvements (Supp.)	41,970	01/01/2023	3.00
06/24/2004	WWTF I&C System (Phase 2) (Supp.)	723,009	01/01/2024	3.00
07/29/2004	Big Walnut Augmentation, Part 2	46,064,348	07/01/2028	3.00
08/26/2004	Kossuth St. Sewer Replacement	1,329,292	07/01/2025	3.00
09/30/2004	WWTF Primary Sludge Pumping Sys. (Supp.)	12,711	07/01/2023	3.00
09/30/2004	WWTF I&C System (Phase 2) (Supp.)	112,459	07/01/2023	3.00
10/28/2004	Maize/Morse Relief Sewers	1,233,255	01/01/2026	3.00
12/16/2004	Royal Forest/Beechmont Sewer Imp.	98,513	01/01/2025	3.00
01/27/2005	Clintonville Area Sanitary Sewer Impr.	910,875	01/01/2026	3.00
02/24/2005	Franklin-Main Interceptor Rehab. (Part 2)	349,938	01/01/2026	3.00
02/24/2005	SWWTP New Headworks (Phase 3)	24,218,401	07/01/2027	3.00
02/24/2005	SWWTP Electrical System Upgrade	2,221,726	07/01/2026	3.00

**Sanitary Sewer Loans Administered by
Ohio Water Development Authority (continued)**

Loan Date	Description	Principal Outstanding at 6/30/20	Final Maturity Date	Interest Rate
03/31/2005	Rustic Bridge Sewers	\$245,516	07/01/2025	3.00%
04/28/2005	Leland/Milton Sanitary Imp.	88,385	07/01/2025	3.00
05/26/2005	Adena Brook Ravine Sewers	923,219	01/01/2027	3.00
05/26/2005	SMOC (Phase 2) (Supp.)	144,680	07/01/2024	3.00
05/26/2005	JPWWTP Sludge Phase (Supp.)	218,394	07/01/2023	3.00
05/26/2005	SWWTP Sludge Dewatering/Misc. Imps. (Supp.)	250,194	07/01/2025	3.00
06/30/2005	WWTF I&C System (Phase 2) (Supp.)	170,896	01/01/2024	3.00
07/28/2005	S69 Chlorine Contact Tank No. 4	1,792,184	07/01/2026	3.00
10/27/2005	Torrence/Colerain Area Sewer Imp.	517,690	07/01/2026	3.00
10/27/2005	Piedmont/High & Orchard/ Milton Sewers	575,164	07/01/2026	3.00
12/15/2005	SWWTP Digester Rehabilitation	18,682,797	01/01/2028	3.00
01/26/2006	Driving Park Area San. Sewers	1,136,791	07/01/2026	3.00
01/26/2006	OSIS Augmentation & Relief Sewer Design	2,560,826	07/01/2027	3.25
03/30/2006	Livingston/James Area I & I Remediation	1,360,291	01/01/2027	3.25
03/30/2006	Early Ditch Relief Area I & I Remediation	3,620,577	01/01/2029	3.25
03/30/2006	Maize/Morse Relief Sewers	1,358,152	07/01/2027	3.00
05/25/2006	Beechwood/Foster Sanitary Improvements	625,817	01/01/2027	3.00
05/25/2006	2nd Supp. to Southerly Headworks	5,379,449	07/01/2027	3.00
08/31/2006	Clinton Heights/Colerain Area Sanitary	710,894	07/01/2027	3.00
08/31/2006	Crestview/Calumet Area San. Improv.	796,209	07/01/2027	3.00
09/28/2006	W Fifth Ave Area I&I Remediation Planning	1,737,767	07/01/2028	3.34
12/14/2006	Morse/Elks Area Sanitary Improvements	443,851	07/01/2027	3.00
12/14/2006	Big Walnut Aug. Pt. B	1,803,864	07/01/2028	3.00
05/31/2007	Sharon Heights Area San. Sewer Impr.	393,791	01/01/2028	3.67
05/31/2007	SWWTP New Effluent Pump Station Levee	2,247,783	01/01/2029	3.67
05/31/2007	West Side San. Sewer Rehab	762,750	01/01/2028	3.67
05/31/2007	Upper Adena Brook Area Sewer Impr.	304,696	01/01/2028	3.67
05/31/2007	Broad Meadows Area San. Sewer Impr.	375,848	01/01/2028	3.67
09/27/2007	Como/Milton Area San. Sewer Imp.	695,091	07/01/2028	3.97
09/27/2007	Clintonville Main Rehabilitation	1,362,154	07/01/2028	3.97
09/27/2007	Deland/Zeller Area Sanitary Sewer Imp.	472,802	07/01/2028	3.97

**Sanitary Sewer Loans Administered by
Ohio Water Development Authority (continued)**

Loan Date	Description	Principal Outstanding at 6/30/20	Final Maturity Date	Interest Rate
09/27/2007	Bill Moose Run San. Sewer Imp.	\$926,374	07/01/2028	3.97%
09/27/2007	Jackson Pike WWTP Skimmings	2,610,953	07/01/2028	3.00
12/13/2007	Southerly WWTP Effluent PS & Cond.	10,504,370	07/01/2029	3.00
01/31/2008	SWWTP Clarifiers & Aeration Tanks Imp.	16,551,066	07/01/2030	4.00
03/27/2008	Jackson Pike Disinfection Facility	9,642,528	01/01/2030	3.00
08/28/2008	Franklin/Main Int. Rehab Phase 2	1,284,403	07/01/2029	3.00
10/30/2008	Suppl. to SWWTP Headworks Ph. 3	115,953	07/01/2027	3.00
12/11/2008	Chestnut St. Sewer Rehab.	974,738	07/01/2030	3.00
12/11/2008	Suppl. to SWWTP Digester Rehab	2,371,590	01/01/2028	3.00
07/30/2009	River South Phase 2	306,683	01/01/2030	3.00
11/19/2009	Olentangy Main Trunk Sewer Rehab.	664,816	07/01/2030	3.00
11/19/2009	Naughten Street Sewer Rehab	941,727	01/01/2031	3.00
12/10/2009	Southerly WWTP Support Facilities	7,656,060	07/01/2031	3.00
04/29/2010	JP New Headworks Contract	3,130,469	07/01/2031	3.00
06/24/2010	OSIS Augmentation & Relief Sewer	240,202,840	07/01/2034	3.00
09/30/2010	SMOC Material Storage Facility	264,913	01/01/2031	3.67
12/09/2010	JPWWTP Digester Covers Rehab	625,782	01/01/2031	2.62
01/27/2011	CSO Regulators/Sluice Gates	1,384,371	01/01/2032	3.00
02/24/2011	OSIS Downtown Odor Control	4,040,190	07/01/2032	3.00
07/28/2011	OSIS Augmentation & Relief Sewers Phase 2	64,853,671	01/01/2035	3.00
06/25/2015	Southerly WWTP Biosolids Land App Facility	32,505,622	07/01/2036	2.07
02/25/2016	Blacklick Creek Sanitary Interceptor Sewer	101,299,981	01/01/2040	1.85
05/26/2016	BWARI filter	3,311,068	01/01/2038	1.77
05/26/2016	Blueprint Hilltop Lining	4,281,607	07/01/2037	1.77
08/25/2016	Blueprint Clintonville Green Infrastructure 5	1,304,498	01/01/2039	1.21
10/27/2016	Blueprint Clintonville Part 6 Shreyer/Springs	2,219,372	07/01/2038	1.23
12/08/2016	CSO Imps at Alum Creek Standby Tank	1,463,355	07/01/2037	1.55
12/08/2016	Jackson Pike WWTP Protective Coatings	2,072,571	07/01/2037	1.55
12/08/2016	Rickenbacker Area Sanitary Pump Station	395,728	07/01/2037	1.55
01/26/2017	SWWTP CEPT	3,864,054	07/01/2037	2.10
01/26/2017	Lockbourne Intermodal Subtrunk	36,107,139	07/01/2040	2.10

**Sanitary Sewer Loans Administered by
Ohio Water Development Authority (continued)**

Loan Date	Description	Principal Outstanding at 6/30/20	Final Maturity Date	Interest Rate
02/27/2017	Blueprint Clintonville Pt2B	\$3,237,580	07/01/2039	2.18%
04/27/2017	Blueprint Clintonville Pt2A	1,190,172	01/01/2039	2.08
05/25/2017	Upper Scioto West Shaft Impr	1,546,045	07/01/2039	2.28
06/29/2017	Alum Creek & Subtrunk Sanitary Sewer Rehab	3,750,951	01/01/2039	2.13
06/29/2017	SWWTP CEPT Clarification	21,780,186	01/01/2040	1.10
07/27/2017	Blueprint Clintonville Part 1 -Blenheim/ Glencoe	8,533,797	01/01/2039	1.75
07/27/2017	Blueprint Clintonville Part 3 - Morse/Dominion	4,187,838	01/01/2039	1.75
07/27/2017	Blueprint Clintonville Part 4 - Overbrook/Chatam	1,101,434	01/01/2039	1.75
07/27/2017	Blueprint Hilltop 4-Lining	2,010,587	01/01/2039	2.00
07/27/2017	SWWTP CEPT Disinfection	15,957,555	01/01/2040	2.00
07/27/2017	SWWTP CEPT Prelim Treatment	21,486,491	07/01/2040	2.00
08/31/2017	Intermodal Sanitary Sewer Extension - Design	2,177,584	07/01/2026	1.89
08/31/2017	Williams-Behm HSTS Elimination	243,308	01/01/2026	1.89
09/28/2017	JPWWTP Primary Clarifiers Electrical Upgrades	3,514,269	07/01/2040	1.88
10/26/2017	2016 Annual Lining Contract	5,165,885	01/01/2040	1.81
12/07/2017	Blueprint Fifth by Northwest Lining	1,772,959	01/01/2040	1.84
12/07/2017	Blueprint West Franklinton Lining	4,305,560	01/01/2040	1.84
01/25/2018	William Rd/Castle Rd San Pump Station	1,516,491	01/01/2039	1.83
06/28/2018	BP Clintonville-Weisheimer/Indian Springs	2,917,315	01/01/2040	2.15
08/30/2018	Alum Creek Trunk Rehab - Phase B	2,390,861	01/01/2040	2.08
08/30/2018	BP Clintonville-Lateral Lining of Morse/Dominion	2,526,804	01/01/2040	2.08
10/25/2018	BP Clintonville-Overbrook/Chatam	1,526,356	07/01/2040	2.18
12/06/2018	BP Clintonville 1 Lat Lining/Roof Redirect	700,977	01/01/2041	2.39
12/06/2018	Blueprint Clintonville3 Area Lining	565,322	07/01/2040	2.39
04/25/2019	Woodward Ave Sanitary Sewer	426,128	01/01/2042	2.09
04/25/2019	JPWWTP Biosolids Land App Imps	1,391,090	07/01/2041	2.09
07/25/2019	2018 Annual Lining Contract	1,399,333	07/01/2041	1.50
12/12/2019	Hayden Run Aerial Sewer Imps	543,041	07/01/2040	1.10
Subtotal - Loans administered by OWDA		\$948,169,260		
TOTAL SANITARY SEWER		\$1,887,617,721		

STORM SEWER

Outstanding bonds and notes attributable to the STORM SEWER Enterprise at June 30, 2020 were:

\$105,625,818

In 2019, of total Storm Sewer Enterprise revenues, 30.96%, or approximately THIRTY-ONE CENTS of every dollar, was directed toward payment of principal and interest.

The weighted average interest rates⁽¹⁾ of outstanding bonds in the Storm Sewer Enterprise were:



Bond Type	6/30/19	6/30/20
General Obligation	4.1769%	4.1776%
OWDA/EPA loan	2.0937%	2.0919%
Combined	4.1692%	4.1655%

Following is additional current data on the STORM SEWER Enterprise outstanding bonds and notes.

(1) (Face) or (coupon) rates; not reflecting the benefit of premium received.

Bonds and Notes Outstanding

(in millions of dollars)

Storm Sewer

	6/30/19	6/30/20
General obligation:		
Voted	\$91	\$95
Unvoted	12	10
	\$103	\$105
Revenue:		
Ohio Water Development Authority Loans	\$1	\$1
Total	\$104	\$106

At June 30, 2020, 90% of the Storm Sewer Enterprise general obligation debt was authorized by a direct vote of the electorate (89% at June 30, 2019).

SOURCE OF FUNDING: Storm Sewer Enterprise revenues

Storm Sewer Enterprise Percent of Total Revenues Directed Towards Debt Service For the Years Ended December 31 (in thousands, except %)

	Revenues ⁽¹⁾	Debt Service ⁽²⁾⁽³⁾	% of Revenues Directed Towards Debt Service
2010	\$39,678	\$15,087	38.02%
2011	38,905	15,947	40.99
2012	37,633	16,279	43.26
2013	36,800	15,716	42.71
2014	39,822	13,799	34.65
2015	39,604	14,034	35.44
2016	40,808	13,075	32.04
2017	41,521	13,522	32.57
2018	43,672	13,638	31.23
2019	44,012	13,628	30.96

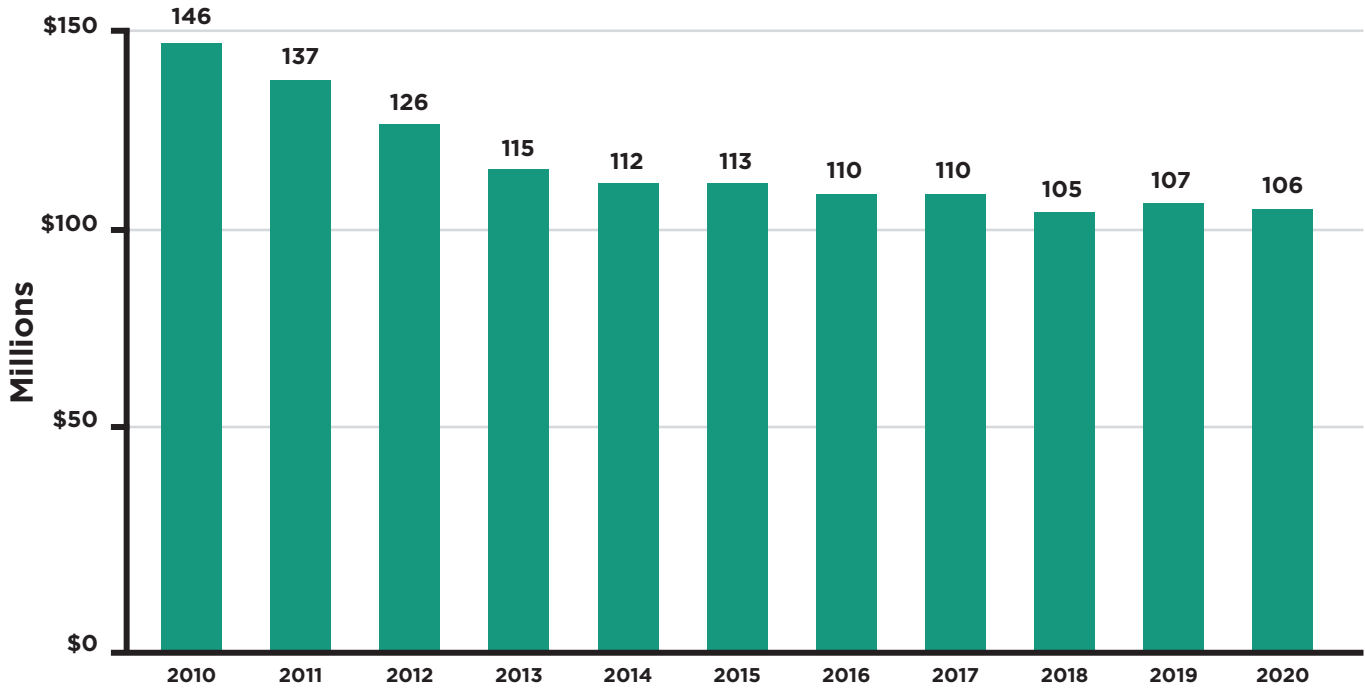
(1) Revenues include operating and non-operating revenues.

(2) Debt service includes interest expense, interest capitalized (in years 2010-2018), principal payments on bonds, and loans administered by the Ohio Water Development Authority. The City of Columbus ceased capitalizing interest in 2019 under GASB 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*.

(3) Debt service in 2019 includes \$10.549 million principal and \$3.079 million interest.

Storm Sewer Enterprise

PERIODS ENDING DECEMBER 31, 2010–2019 AND JUNE 30, 2020



DT = Debt Type	DF = Debt Form
L = Limited	B = Bond
U = Unlimited	STN = Short Term Note
R = Revenue	LTN = Long Term Note
A = Assessment	

Storm Sewer

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
08/25/2011	L	Series 2011B Ref Storm	B	\$ 3,220,000		07/01/2021	4.6584*%	1098-11
03/21/2012	U	Series 2012-1 Ref Storm	B	8,530,000	07/01/2022	07/01/2023	4.2626*	0222-12
03/21/2012	U	Series 2012-1 Ref Storm	B	1,890,000		07/01/2022	4.3333*	0222-12
03/21/2012	L	Series 2012-2 Ref Storm	B	3,110,000	07/01/2022	07/01/2023	4.4968*	0223-12
09/26/2012	U	Series 2012-3 Ref Storm	B	4,245,000	02/15/2023	08/15/2025	3.9988*	1763-12
09/26/2012	U	Series 2012-5 Ref Storm Tax	B	1,540,000		08/15/2022	2.2579*	1765-12
06/13/2013	U	Series 2013-1 Ref Storm	B	2,250,000	07/01/2023	07/01/2029	4.9644*	0131-13
06/13/2013	U	Series 2013-1 Ref Storm	B	1,295,000	07/01/2023	07/01/2029	4.7799*	0131-13
06/13/2013	U	Series 2013-1 Ref Storm	B	4,850,000	07/01/2023	07/01/2029	4.7835*	0131-13
09/04/2013	U	Series 2013A Storm	B	1,100,000		08/15/2023	5.0000	1882-13
06/24/2014	U	Series 2014A Storm	B	4,830,000	02/15/2024	02/15/2035	4.1339*	1115-14
09/04/2014	U	Series 2014-5 Ref Storm	B	2,900,000	08/15/2024	08/15/2027	4.3983*	1700-14
08/13/2015	U	Series 2015A Storm	B	9,145,000	07/01/2025	07/01/2036	3.6053*	1579-15
03/07/2016	U	Series 2016-1 Ref Storm	B	510,000		07/01/2023	4.2745*	0234-16
03/07/2016	U	Series 2016-1 Ref Storm	B	915,000	07/01/2026	07/01/2030	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Storm	B	535,000	07/01/2026	07/01/2031	4.4953*	0234-16
03/07/2016	U	Series 2016-1 Ref Storm	B	530,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Storm	B	1,955,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Storm	B	1,110,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Storm	B	530,000		07/01/2026	5.0000	0234-16
08/04/2016	U	Series 2016A Storm	B	7,650,000	08/15/2025	08/15/2037	3.1667*	1607-16
11/16/2016	U	Series 2016-3 Ref Storm	B	550,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Storm	B	2,020,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Storm	B	1,140,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Storm	B	530,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Storm	B	340,000		02/15/2027	5.0000	2411-16
10/25/2017	U	Series 2017A Storm	B	9,335,000	04/01/2027	04/01/2038	3.7264*	1790-17
11/16/2017	U	Series 2017-1 Storm	B	555,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Storm	B	265,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Storm	B	3,190,000	10/01/2027	04/01/2031	4.3182*	2660-17
11/16/2017	U	Series 2017-1 Storm	B	1,680,000	10/01/2027	04/01/2033	4.1726*	2660-17

DT = Debt Type	DF = Debt Form
L = Limited	B = Bond
U = Unlimited	STN = Short Term Note
R = Revenue	LTN = Long Term Note
A = Assessment	

Storm Sewer *(continued)*

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
10/17/2018	U	Series 2018A Storm	B	\$1,140,000	10/01/2028	04/01/2039	5.0000%	2434-18
10/17/2018	U	Series 2018A Storm	B	3,660,000	10/01/2028	04/01/2039	5.0000	2435-18
10/16/2019	U	Series 2019A Storm	B	11,400,000	04/01/2029	04/01/2040	5.0000	2247-19
10/16/2019	U	Series 2019-1 Ref Storm Tax	B	2,095,000		04/01/2026	1.9950*	2275-19
10/16/2019	U	Series 2019-1 Ref Storm Tax	B	270,000	04/01/2029	04/01/2034	2.6820*	2275-19
10/16/2019	L	Series 2019-2 Ref Storm Tax	B	535,000		04/01/2023	1.6565*	2275-19
10/16/2019	L	Series 2019-2 Ref Storm Tax	B	3,070,000		04/01/2025	1.8512*	2275-19

Subtotal-Storm Sewer **\$104,415,000**

* Weighted average interest rate on the outstanding principal.

** The interest rates identified above are calculated using the actual coupon rates on each series of bonds or notes. The rates are not representative of the true interest costs to the City. As a result of low interest rates, the market for the sale of the City's bonds and notes has frequently produced bids at a stated coupon rate with a premium payable upon the sale of the securities, which creates a true interest cost (TIC) substantially less than the coupon rate.

**Storm Sewer Loans Administered by
Ohio Water Development Authority**

Loan Date	Description	Principal Outstanding at 6/30/20	Final Maturity Date	Interest Rate
03/29/2018	Woodward Ave Detention Basin Imps	\$ 351,976	01/01/2040	1.95%
05/31/2018	Windsor Ave Stormwater System Imps	316,049	07/01/2039	2.15
06/28/2018	Rathbone Stormwater Imps	542,793	01/01/2040	2.15
Subtotal - Loans administered by OWDA		\$1,210,818		
TOTAL STORM SEWER		\$105,625,818		

ELECTRICITY

Outstanding bonds and notes attributable to the ELECTRICITY Enterprise at June 30, 2020 were:

\$30,424,438⁽¹⁾

In 2019, of total Electricity Enterprise revenues, 3.01%, or approximately THREE CENTS of every dollar, was directed toward payment of principal and interest.

The weighted average interest rates⁽²⁾ of outstanding bonds in the Electricity Enterprise were:



2019

Bond Type	6/30/19	6/30/20
General Obligation	4.1336%	4.2926%

Following is additional current and ten year historical data on the ELECTRICITY Enterprise outstanding bonds and notes.

(1) Includes \$19,945,000 of bonds supported by Non-Enterprise (Income Tax) revenues.

(2) (Face) or (coupon) rates; not reflecting the benefit of premium received.

Bonds and Notes Outstanding

(in millions of dollars)

Electricity

	6/30/19	6/30/20
General obligation:		
Voted	\$24	\$27
Unvoted	4	3
	\$28	\$30
Revenue	\$0	\$0
Total	\$28	\$30

At June 30, 2020, 89% of the Electricity Enterprise general obligation debt was authorized by a direct vote of the electorate (86% at June 30, 2019).

SOURCE OF FUNDING: Electricity Enterprise revenues.

Income tax for certain general obligation bonds.

Electricity Enterprise Percent of Total Revenues Directed Towards Debt Service For the Years Ended December 31 (in thousands, except %)

	Revenues ⁽¹⁾	Debt Service ⁽²⁾⁽³⁾	% of Revenues Directed Towards Debt Service
2010	\$81,553	\$6,273	7.69%
2011	90,655	5,547	6.12
2012	91,321	4,788	5.24
2013	86,656	4,461	5.15
2014	82,975	4,065	4.90
2015	78,783	4,238	5.38
2016	80,247	2,803	3.49
2017	83,497	2,689	3.22
2018	89,501	2,636	2.95
2019	86,763	2,609	3.01

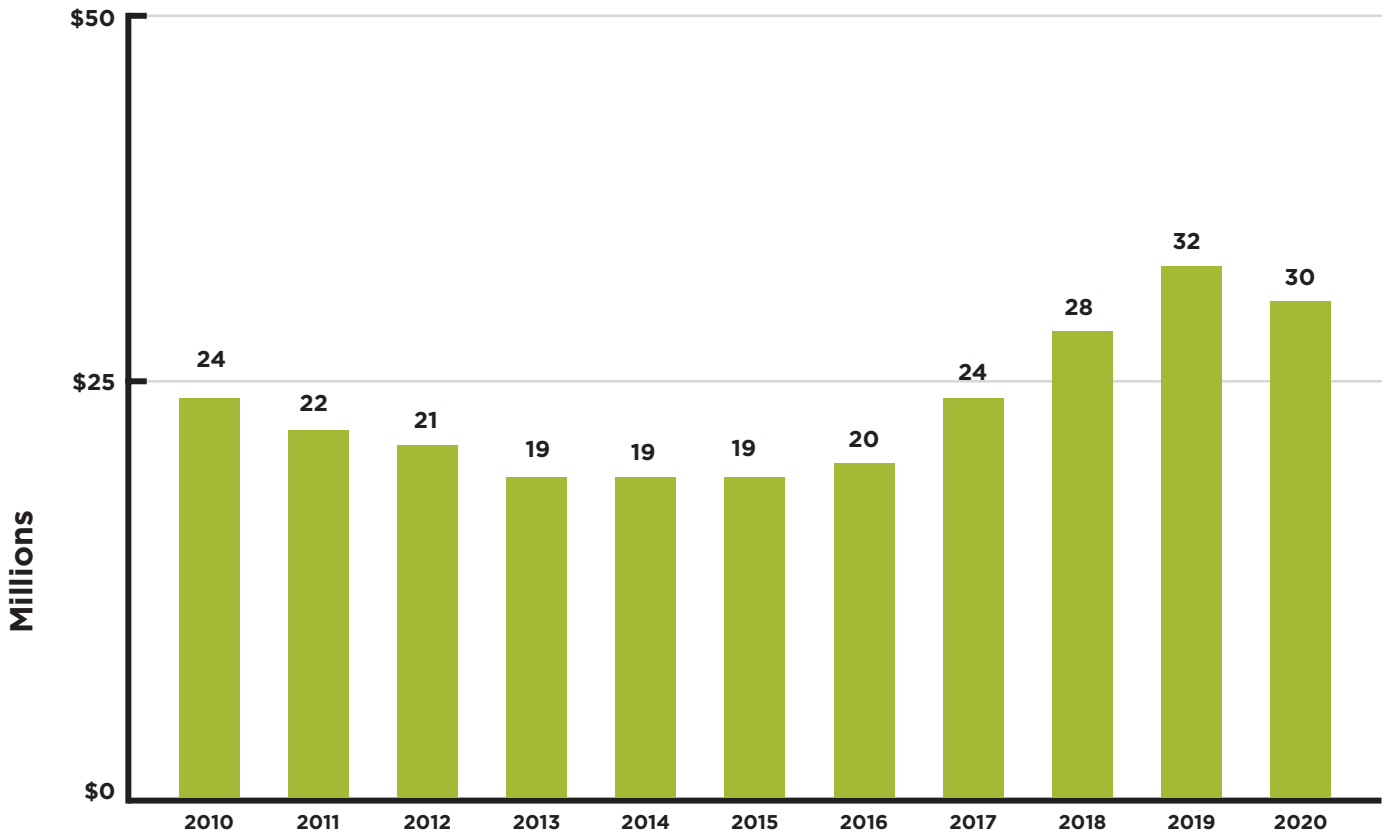
(1) Revenues include operating and non-operating revenues; exclude transfer in from the Income Tax fund, \$1.622 million in 2019, for debt service applicable to 2019.

(2) Debt service includes interest expense, interest capitalized (in years 2010-2018), and principal payments on bonds. The City of Columbus ceased capitalizing interest in 2019 under GASB 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*.

(3) Debt service in 2019 includes \$1.843 million principal and \$766 thousand interest.

Electricity Enterprise

PERIODS ENDING DECEMBER 31, 2010–2019 AND JUNE 30, 2020



DT = Debt Type	DF = Debt Form
L = Limited	B = Bond
U = Unlimited	STN = Short Term Note
R = Revenue	LTN = Long Term Note
A = Assessment	

Electricity

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
08/25/2011	U	Series 2011A Electricity SIT	B	\$ 170,000		07/01/2021	5.0000%	1103-11
08/25/2011	L	Series 2011B Electricity SIT	B	525,000	07/01/2021	07/01/2027	3.7440*	1108-11
07/24/2012	U	Series 2012A Electricity SIT	B	20,000		02/15/2022	4.5000*	1212-12
07/24/2012	L	Series 2012B Electricity SIT	B	1,355,000	08/15/2022	02/15/2028	3.8782*	1218-12
06/13/2013	U	Series 2013-1 Ref Elect St Light	B	230,000		07/01/2023	5.0000	0131-13
06/13/2013	U	Series 2013-1 Ref Electricity Dist	B	745,000		07/01/2023	5.0000	0131-13
09/04/2013	L	Series 2013B Electricity SIT	B	635,000	08/15/2023	08/15/2029	3.7569*	1891-13
09/04/2013	L	Series 2013B Electricity SIT	B	295,000		08/15/2023	5.0000	1891-13
06/24/2014	U	Series 2014A Electricity SIT	B	2,430,000	02/15/2024	02/15/2030	4.4444*	1115-14
09/04/2014	U	Series 2014-5 Ref Electricity SIT	B	80,000		08/15/2024	5.0000	1700-14
08/13/2015	U	Series 2015A Electricity	B	2,100,000	07/01/2025	07/01/2031	3.4417*	1579-15
08/13/2015	U	Series 2015A Electricity SIT	B	400,000	07/01/2025	07/01/2031	3.4600*	1579-15
03/07/2016	U	Series 2016-1 Ref Electricity SIT	B	395,000	07/01/2026	07/01/2027	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Electricity SIT	B	20,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Electricity	B	60,000		07/01/2025	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Electricity	B	195,000		07/01/2025	5.0000	0234-16
03/07/2016	L	Series 2016-2 Ref Electricity SIT	B	295,000		07/01/2026	5.0000	0235-16
08/04/2016	U	Series 2016A Electricity SIT	B	1,860,000	08/15/2025	08/15/2032	3.2339*	1607-16
08/04/2016	U	Series 2016A Electricity SIT	B	1,475,000	08/15/2025	08/15/2032	3.2339*	1607-16
11/16/2016	U	Series 2016-3 Ref Electricity SIT	B	265,000		02/15/2027	5.0000	2411-16
11/16/2016	L	Series 2016-4 Ref Electricity SIT	B	120,000		02/15/2027	5.0000	2412-16
11/16/2016	L	Series 2016-4 Ref Electricity SIT	B	145,000	02/15/2027	02/15/2028	5.0000	2412-16
10/25/2017	U	Series 2017A Electricity SIT	B	4,680,000	04/01/2027	04/01/2033	3.8538*	1790-17
11/16/2017	U	Series 2017-1 Electricity SIT	B	40,000	10/01/2027	04/01/2028	4.5000*	2660-17
11/16/2017	U	Series 2017-1 Electricity St Light	B	60,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Electricity Dist	B	195,000		04/01/2024	5.0000	2660-17
08/07/2018	A	Broad Meadows Elect Spec Assess	B	29,438		08/07/2028	2.5000	2099-18
10/17/2018	U	Series 2018A Electricity SIT	B	2,085,000	10/01/2028	04/01/2034	5.0000	2434-18
10/17/2018	U	Series 2018A Electricity SIT	B	2,580,000	10/01/2028	04/01/2034	5.0000	2435-18

DT = Debt Type	DF = Debt Form
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R = Revenue	LTN = Long Term Note
A = Assessment	

Electricity *(continued)*

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
10/17/2018	U	Series 2018A Electricity Fee	B	\$1,865,000	10/01/2028	04/01/2034	5.0000%	2435-18
10/16/2019	U	Series 2019A Electricity Fee	B	5,000,000	04/01/2029	04/01/2035	5.0000	2247-19
10/16/2019	L	Series 2019-2 Ref Electricity SIT	B	75,000		04/01/2022	1.6430*	2275-19
TOTAL - ELECTRICITY				\$30,424,438				

* Weighted interest rate on the outstanding principal.

** The interest rates identified above are calculated using the actual coupon rates on each series of bonds or notes. The rates are not representative of the true interest costs to the City. As a result of low interest rates, the market for the sale of the City's bonds and notes has frequently produced bids at a stated coupon rate with a premium payable upon the sale of the securities, which creates a true interest cost (TIC) substantially less than the coupon rate.

PARKING GARAGES

Outstanding notes attributable to the PARKING GARAGES Enterprise at June 30, 2020 were:

\$0

The interest rate of the outstanding note in the Garage Enterprise is:

Note Type	6/30/19	6/30/20
General Obligation	1.6500%	N/A

The City paid debt service on these notes from (i) special assessments levied in order to pay a portion of the cost of the Fourth and Elm Garage; (ii) TIF revenues generated in the downtown area to pay a portion of the cost of the garages; (iii) and parking revenues received from the operation of the garages.

DT = Debt Type	DF = Debt Form
L = Limited	B = Bond
U = Unlimited	STN = Short Term Note
R = Revenue	LTN = Long Term Note
A = Assessment	

Parking Garages

Dated Date	DT	Title	DF	Principal Outstanding	Final Maturity Date	Interest Rate*	Ordinance #
06/27/2019	L	Series 2019 Parking Garages	STN	\$0	05/27/2020	1.6500%	1248-19
TOTAL - PARKING GARAGES				\$0			

* The interest rates identified above are calculated using the actual coupon rates on each series of bonds or notes. The rates are not representative of the true interest costs to the City. As a result of low interest rates, the market for the sale of the City's bonds and notes has frequently produced bids at a stated coupon rate with a premium payable upon the sale of the securities, which creates a true interest cost (TIC) substantially less than the coupon rate.

History of Parking Garage Notes

Dated Date	Title	Principal Amount	Maturity Date	Interest Rate	Ordinance #
12/16/2008	Series 2008-1 Parking Garages	\$20,000,000.00	12/16/2009	2.5000%	1879-08
12/10/2009	Series 2009-1 Parking Garages	29,500,000.00	12/10/2010	2.0000	1506-09
12/16/2009	Original Note Redeemed	<20,000,000.00>	—	—	—
12/07/2010	Series 2010-1 Parking Garages (Redemption of \$4.855 million in principal)	24,645,000.00	12/07/2011	2.0000	1560-10
12/10/2010	Series 2009-1 Notes Redeemed	<29,500,000.00>	—	—	—
12/01/2011	Series 2011-1 Parking Garages (Redemption of \$1.895 million in principal)	22,750,000.00	11/29/2012	2.0000	1688-11
12/07/2011	Series 2010-1 Notes Redeemed	<24,645,000.00>	—	—	—
11/27/2012	Series 2012-1 Parking Garages (Redemption of \$1.500 million in principal)	21,250,000.00	1/21/2013	1.5000	2261-12
11/29/2012	Series 2011-1 Notes Redeemed	<22,750,000.00>	—	—	—
09/04/2013	Series 2013 Parking Garages (Redemption of \$1.750 million in principal)	19,500,000.00	09/02/2014	2.0000	1896-13
11/21/2013	Series 2012-1 Notes Redeemed	<21,250,000.00>	—	—	—
08/28/2014	Series 2014 Parking Garages (Redemption of \$1.500 million in principal)	18,000,000.00	08/28/2015	1.0000	1712-14
09/02/2014	Series 2013 Notes Redeemed	<19,500,000.00>	—	—	—
08/13/2015	Series 2015 Parking Garages (Redemption of \$3.500 million in principal)	14,500,000.00	08/11/2016	2.0000	1587-15
08/28/2015	Series 2014 Notes Redeemed	<18,000,000.00>	—	—	—
08/04/2016	Series 2016 Parking Garages (Redemption of \$2.700 million in principal)	11,800,000.00	08/04/2011	1.7500	1604-16
08/11/2016	Series 2015 Notes Redeemed	<14,500,000.00>	—	—	—
06/29/2017	Series 2017 Parking Garages (Redemption of \$3.300 million in principal)	8,500,000.00	6/29/2018	1.1830	1402-17
08/04/2017	Series 2016 Notes Redeemed	<11,800,000.00>	—	—	—
06/28/2018	Series 2018 Parking Garages (Redemption of \$2.500 million in principal)	6,000,000.00	6/28/2019	2.2400	1171-18
06/29/2018	Series 2017 Notes Redeemed	<8,500,000.00>	—	—	—
06/27/2019	Series 2019 Parking Garages (Redemption of \$3.500 million in principal)	2,500,000.00	6/26/2020	1.6500	1248-19
06/28/2019	Series 2018 Notes Redeemed	<6,000,000.00>	—	—	—
05/27/2020	Series 2019 Notes Redeemed	<2,500,000.00>	—	—	—
OUTSTANDING AT JUNE 30, 2020		\$0			

NON-ENTERPRISE/INFRASTRUCTURE AND OTHER

Outstanding bonds and notes attributable to the City’s NON-ENTERPRISE/INFRASTRUCTURE type capital assets and Internal Service Fund bonds, at June 30, 2020 were as follows:

\$1,639,804,822

Principal and interest on non-enterprise/infrastructure debt is supported by income tax, in lieu of property tax payments, assessments, or recreation fees. Internal Service Fund revenues support information technology bonds and fleet bonds.

The weighted average interest rates⁽¹⁾ of outstanding non-enterprise bonds and loans were:

	6/30/19	6/30/20
General Obligation	4.0455%	4.1034%
Revenue	4.5842%	4.5436%
Combined	4.0698%	4.1203%

Following is additional current and ten year historical data on the NON-ENTERPRISE and INFRASTRUCTURE outstanding bonds and notes.

(1) (Face) or (coupon) rates; not reflecting the benefit of premium received.

Bonds and Notes Outstanding

(in millions of dollars)

Non-Enterprise/Infrastructure and Other

	6/30/19	6/30/20
General obligation:		
Voted	\$1,130	\$1,130
Unvoted	467	451
	\$1,597	\$1,581
Revenue:	\$69 ⁽¹⁾	\$59 ⁽¹⁾
Total	\$1,666	\$1,640

At June 30, 2020, 71% of the Non Enterprise/Infrastructure general obligation debt was authorized by a direct vote of the electorate (71% at June 30, 2019).

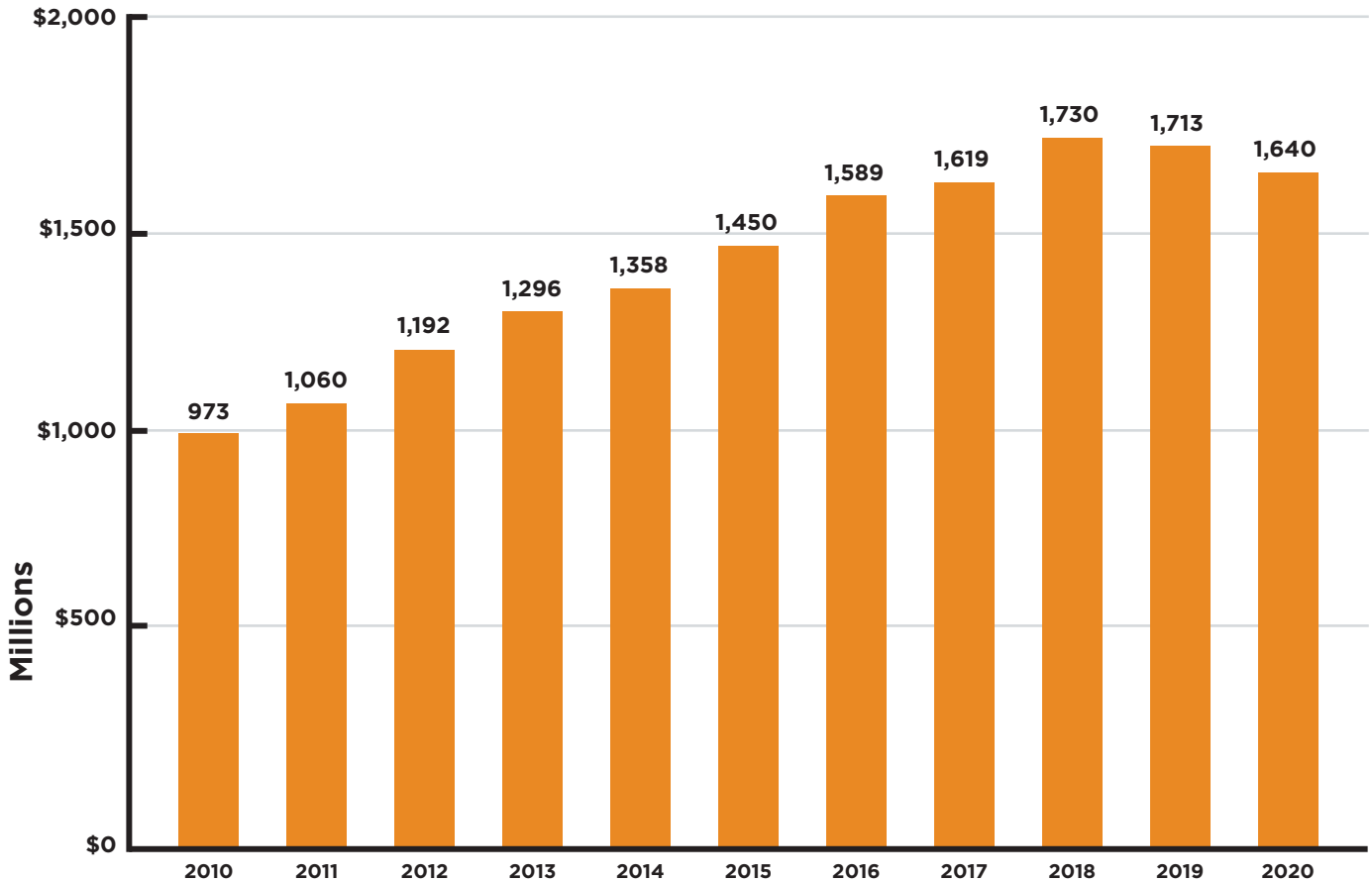
SOURCES OF FUNDING:

- Income tax, special assessments, TIF payments, and recreation fees.
- Internal Service Fund revenues for certain Internal Service Fund debt.

(1) Revenue obligation represents the City's Component Unit (RiverSouth) lease revenue bonds and the long-term TIF notes and bonds.

Non-Enterprise/Infrastructure and Other Enterprise

PERIODS ENDING DECEMBER 31, 2010–2019 AND JUNE 30, 2020



NON-ENTERPRISE/INFRASTRUCTURE AND OTHER

A Recap by Major Purpose (June 30, 2020)

		Page Reference ⁽¹⁾
Public Service:		61
Streets: General Obligation	\$ 951,665,000	
Component Unit Lease Rev. Bonds	57,240,000	
Refuse Collection	17,565,000	
Total Public Service:	\$1,026,470,000	61 - 63
Public Safety and Health	179,805,000	64 - 65
Recreation and Parks	260,010,000	66 - 67
General Government	12,995,000	68
Internal Service:		69
Information Services	25,390,000	
Fleet Management	24,330,000	
Total Internal Service	49,720,000	69
Development	98,680,000	70
Ohio Public Works Commission Loans	3,628,195	72
Ohio State Infrastructure Bank Loan	7,105,000	73
Revenue Obligation- TIF Notes	1,391,627	73
Total	\$1,639,804,822	

(1) See detailed listing of outstanding bonds on referenced page number.

DT = Debt Type	DF = Debt Form
L = Limited	B = Bond
U = Unlimited	STN = Short Term Note
R = Revenue	LTN = Long Term Note
A = Assessment	

Public Service

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
11/19/2009	U	Series 2009A Hayden Run (U)	B	\$280,000	07/01/2019	07/01/2020	3.1250%	1345-09
12/07/2010	L	Series 2010-2B Polaris	B	515,000	12/01/2020	06/01/2021	3.2500*	1561-10
08/25/2011	L	Series 2011B Construction Mgmt	B	3,775,000	07/01/2021	07/01/2027	3.7416*	1105-11
08/25/2011	L	Series 2011B Ref Transportation	B	5,180,000		07/01/2021	4.6564*	1098-11
08/25/2011	U	Series 2011A Transportation	B	9,800,000		07/01/2021	5.0000	1101-11
08/25/2011	U	Series 2011A Ref Transportation	B	5,200,000		07/01/2021	5.0000	1097-11
03/21/2012	U	Series 2012-1 Ref Transportation	B	2,765,000		07/01/2022	3.0217*	0222-12
03/21/2012	U	Series 2012-1 Ref Transportation	B	7,485,000		07/01/2021	4.3514*	0222-12
03/21/2012	U	Series 2012-1 Ref Transportation	B	9,050,000		07/01/2022	4.3337*	0222-12
03/21/2012	L	Series 2012-2 Ref Transportation	B	2,610,000		07/01/2022	4.0000	0223-12
05/02/2012	R	Series 2012 Comp Unit-Lease Rev***	B	14,755,000	12/01/2022	12/01/2024	4.2515*	0382-12
07/24/2012	U	Series 2012A Transportation	B	8,410,000		02/15/2022	4.5000*	1208-12
07/24/2012	L	Series 2012B Construction Mgmt	B	11,650,000	08/15/2022	02/15/2028	3.8760*	1213-12
09/26/2012	U	Series 2012-3 Ref Transportation	B	6,695,000		08/15/2022	5.0000	1763-12
09/26/2012	L	Series 2012-4 Ref Transportation	B	625,000	02/15/2023	08/15/2024	4.2560*	1764-12
11/27/2012	L	Series 2012-7 Ref Polaris	B	7,345,000	12/01/2022	12/01/2025	4.8557*	2263-12
11/27/2012	L	Series 2012-8 Ref Easton Taxable	B	14,445,000	12/01/2022	12/01/2025	2.3940*	2262-12
06/13/2013	U	Series 2013-1 Ref Transportation	B	3,965,000		07/01/2023	5.0000	0131-13
06/13/2013	U	Series 2013-1 Ref Hayden Run	B	510,000		07/01/2023	5.0000	0131-13
06/13/2013	U	Series 2013-1 Ref Transportation	B	10,775,000		07/01/2023	5.0000	0131-13
06/13/2013	L	Series 2013-2 Ref Construction Mgmt	B	1,850,000	07/01/2023	07/01/2024	5.0000	0132-13
06/13/2013	L	Series 2013-2 Ref Construction Mgmt	B	3,350,000	07/01/2023	07/01/2024	5.0000	0132-13
06/13/2013	L	Series 2013-2 Ref Construction Mgmt	B	15,445,000	07/01/2023	07/01/2029	4.2604*	0132-13
09/04/2013	U	Series 2013A Transportation	B	22,260,000		08/15/2023	5.0000	1877-13
09/04/2013	L	Series 2013D Construction Mgmt Tax	B	2,010,000	08/15/2023	08/15/2025	3.5350*	1894-13
09/04/2013	L	Series 2013B Construction Mgmt	B	5,195,000	08/15/2023	08/15/2029	3.6959*	1886-13
09/04/2013	L	Series 2013B Construction Mgmt	B	9,325,000		08/15/2023	5.0000	1886-13
04/23/2014	R	Series 2014 Comp Unit-Lease Rev***	B	16,295,000	06/01/2023	06/01/2025	5.0000	0541-14
06/24/2014	U	Series 2014A Transportation	B	40,250,000	02/15/2024	02/15/2031	4.4000*	1113-14
06/24/2014	U	Series 2014A Transportation	B	13,540,000	02/15/2024	02/15/2031	4.4003*	1114-14
06/24/2014	L	Series 2014B Construction Mgmt	B	6,170,000	02/15/2024	02/15/2030	4.0032*	1119-14

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U = Unlimited	STN = Short Term Note
R = Revenue	LTN = Long Term Note
A = Assessment	

Public Service *(continued)*

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
06/24/2014	L	Series 2014C Construction Mgmt Tax	B	\$400,000	02/15/2024	02/15/2030	3.3600%	1123-14
09/04/2014	U	Series 2014-5 Ref Transportation	B	3,140,000		08/15/2023	5.0000	1700-14
09/04/2014	U	Series 2014-5 Ref Transportation	B	4,770,000		08/15/2024	5.0000	1700-14
09/04/2014	L	Series 2014-6 Ref Transportation	B	650,000	08/15/2024	08/15/2028	3.5538*	1701-14
08/13/2015	U	Series 2015A Transportation	B	73,255,000	07/01/2025	07/01/2032	3.4846*	1578-15
08/13/2015	U	Series 2015A Refuse	B	1,600,000		07/01/2021	3.0000	1578-15
08/13/2015	L	Series 2015B Construction Mgmt	B	53,840,000	07/01/2025	07/01/2036	3.5999*	1582-15
03/07/2016	U	Series 2016-1 Ref Hayden Run	B	1,260,000		07/01/2025	4.5952*	0234-16
03/07/2016	U	Series 2016-1 Ref Transportation	B	28,325,000	07/01/2026	07/01/2028	4.6602*	0234-16
03/07/2016	U	Series 2016-1 Ref Transportation	B	7,980,000		07/01/2026	4.9975*	0234-16
03/07/2016	U	Series 2016-1 Ref Transportation	B	5,595,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Transportation	B	1,025,000		07/01/2025	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Hayden Run	B	135,000		07/01/2025	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Transportation	B	11,035,000		07/01/2026	4.5528*	0234-16
03/07/2016	L	Series 2016-2 Ref Polaris	B	2,610,000		07/01/2026	3.1954*	0235-16
03/07/2016	L	Series 2016-2 Ref Construction Mgmt	B	385,000		07/01/2025	5.0000	0235-16
03/07/2016	L	Series 2016-2 Ref Construction Mgmt	B	1,395,000		07/01/2026	5.0000	0235-16
03/07/2016	L	Series 2016-2 Ref Construction Mgmt	B	3,920,000		07/01/2026	5.0000	0235-16
03/07/2016	L	Series 2016-2 Ref Construction Mgmt	B	4,685,000		07/01/2026	5.0000	0235-16
08/04/2016	U	Series 2016A Transportation	B	81,210,000	08/15/2025	08/15/2033	3.2143*	1605-16
08/04/2016	U	Series 2016A Refuse	B	3,645,000		08/15/2022	2.6667*	1605-16
08/04/2016	L	Series 2016B Construction Mgmt	B	17,745,000	08/15/2025	08/15/2032	2.8846*	1611-16
08/04/2016	L	Series 2016B Transportation	B	22,485,000	08/15/2025	08/15/2033	2.8920*	1609-16
09/29/2016	R	Series 2016 Comp Unit-Lease Rev***	B	26,190,000	12/01/2025	12/01/2041	4.3394*	1980-16
11/16/2016	U	Series 2016-3 Ref Transportation	B	10,875,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Transportation	B	3,950,000		02/15/2027	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Transportation	B	1,330,000		02/15/2027	5.0000	2411-16
11/16/2016	L	Series 2016-4 Ref Construction Mgmt	B	2,320,000		02/15/2027	5.0000	2412-16
11/16/2016	L	Series 2016-4 Ref Construction Mgmt	B	2,380,000	02/15/2027	02/15/2028	5.0000	2412-16
10/25/2017	U	Series 2017A Transportation	B	102,695,000	04/01/2027	04/01/2034	3.8643*	1788-17
10/25/2017	U	Series 2017A Refuse	B	1,980,000		04/01/2023	4.0000	1788-17

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Public Service *(continued)*

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
10/25/2017	L	Series 2017B Construction Mgmt	B	\$4,240,000	04/01/2027	04/01/2033	3.4623*	1792-17
10/25/2017	L	Series 2017C Construction Mgmt Tax	B	860,000	04/01/2027	04/01/2033	2.6914*	1792-17
11/16/2017	U	Series 2017-1 Transportation	B	19,715,000	10/01/2027	04/01/2029	4.6006*	2660-17
11/16/2017	U	Series 2017-1 Transportation	B	1,010,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Hayden Run	B	135,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Transportation	B	2,760,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Transportation	B	16,440,000	10/01/2027	04/01/2030	4.6673*	2660-17
10/17/2018	U	Series 2018A Transportation	B	142,845,000	10/01/2028	04/01/2035	5.0000	2432-18
10/17/2018	U	Series 2018A Refuse	B	5,260,000		04/01/2024	5.0000	2432-18
10/17/2018	L	Series 2018B Construction Mgmt	B	5,580,000	10/01/2028	04/01/2034	3.8509*	2438-18
10/17/2018	L	Series 2018D Construction Mgmt Tax	B	1,210,000	10/01/2028	04/01/2034	3.6817*	2438-18
10/16/2019	U	Series 2019A Transportation	B	25,370,000	04/01/2029	04/01/2036	5.0000	2245-19
10/16/2019	U	Series 2019A Transportation	B	23,850,000	04/01/2029	04/01/2036	5.0000	2245-19
10/16/2019	U	Series 2019A Refuse	B	5,080,000		04/01/2025	5.0000	2245-19
10/16/2019	U	Series 2019C Transportation Tax	B	5,000,000	04/01/2029	04/01/2036	2.2217*	2245-19
10/16/2019	L	Series 2019B Construction Mgmt	B	7,580,000	04/01/2029	04/01/2035	4.9617*	2248-19
10/16/2019	L	Series 2019D Construction Mgmt Tax	B	13,000,000	04/01/2029	04/01/2040	2.3861*	2248-19
10/16/2019	U	Series 2019-1 Ref Transportation Tax	B	85,000		04/01/2025	1.9450*	2275-19
10/16/2019	L	Series 2019-2 Ref Construction Mgmt Tax	B	235,000		04/01/2026	1.7823*	2276-19
10/16/2019	L	Series 2019-2 Ref Construction Mgmt Tax	B	540,000		04/01/2022	1.6430*	2276-19
10/16/2019	L	Series 2019-2 Ref Construction Mgmt Tax	B	1,340,000		04/01/2029	2.1080*	2276-19
TOTAL G.O. AND REVENUE - PUBLIC SERVICE				\$1,026,470,000				

* Weighted average interest rate on the outstanding principal.

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*** The City has a blended component unit (The RiverSouth Authority). Rental payments from the City to RiverSouth are due pursuant to certain lease agreements. These payments equate to the debt service requirements of RiverSouth's lease revenue bonds. Rental payments are subject to annual appropriations of City Council. See Note A and Note Q of the City's 2019 Comprehensive Annual Financial Report for further information.

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Public Safety and Health

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
08/25/2011	L	Series 2011B Ref Health	B	\$ 35,000		07/01/2020	5.0000%	1098-11
08/25/2011	U	Series 2011A Safety/Health	B	2,110,000		07/01/2021	5.0000	1099-11
03/21/2012	U	Series 2012-1 Ref Health /Safety	B	5,050,000	07/01/2022	07/01/2023	4.2634*	0222-12
03/21/2012	U	Series 2012-1 Ref Health /Safety	B	2,015,000		07/01/2022	4.3350*	0222-12
07/24/2012	U	Series 2012A Safety/Health	B	4,130,000		02/15/2022	4.5000*	1206-12
09/26/2012	U	Series 2012-3 Ref Health/Saf	B	740,000		08/15/2022	5.0000	1763-12
09/26/2012	L	Series 2012-4 Ref Health/Saf	B	5,625,000	02/15/2023	08/15/2024	4.2533*	1764-12
06/13/2013	U	Series 2013-1 Ref Health/Saf	B	3,075,000		07/01/2023	5.0000	0131-13
06/13/2013	U	Series 2013-1 Ref Saf/Health	B	4,930,000		07/01/2023	5.0000	0131-13
09/04/2013	U	Series 2013A Safety/Health	B	2,300,000		08/15/2023	5.0000	1875-13
09/04/2013	L	Series 2013B Saf/Health	B	1,900,000	08/15/2023	08/15/2027	3.3599*	1885-13
09/04/2013	L	Series 2013B Saf/Health	B	5,830,000		08/15/2023	5.0000	1885-13
06/24/2014	U	Series 2014A Safety/Health	B	14,790,000	02/15/2024	02/15/2028	4.5720*	1110-14
09/04/2014	U	Series 2014-5 Ref Saf/Health	B	1,165,000		08/15/2024	5.0000	1700-14
09/04/2014	U	Series 2014-5 Ref Saf/Health	B	1,065,000	08/15/2024	08/15/2025	4.6620*	1700-14
09/04/2014	U	Series 2014-5 Ref Saf/Health	B	1,030,000		08/15/2024	5.0000	1700-14
09/04/2014	L	Series 2014-6 Ref Saf/Health	B	1,315,000	08/15/2024	08/15/2025	5.0000	1701-14
08/13/2015	U	Series 2015A Public Safety	B	15,255,000	07/01/2025	07/01/2029	3.4998*	1576-15
03/07/2016	U	Series 2016-1 Ref Safety/Health	B	4,005,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Safety/Health	B	3,945,000		07/01/2026	4.9962*	0234-16
03/07/2016	U	Series 2016-1 Ref Safety/Health	B	1,285,000		07/01/2025	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Safety/Health	B	1,120,000		07/01/2026	5.0000	0234-16
03/07/2016	L	Series 2016-2 Ref Safety/Health	B	2,990,000		07/01/2026	5.0000	0235-16
08/04/2016	U	Series 2016A Safety/Health	B	4,380,000	08/15/2025	08/15/2030	3.2728*	1603-16
08/04/2016	L	Series 2016B Safety	B	14,945,000	08/15/2025	08/15/2030	2.8632*	1608-16
08/04/2016	L	Series 2016D Safety Taxable	B	970,000	08/15/2025	08/15/2030	2.2107*	1608-16
11/16/2016	U	Series 2016-3 Ref Safety/Health	B	1,125,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Safety/Health	B	2,075,000		02/15/2027	5.0000	2411-16
11/16/2016	L	Series 2016-4 Ref Safety/Health	B	1,470,000		02/15/2027	5.0000	2412-16
11/16/2016	L	Series 2016-4 Ref Safety/Health	B	1,515,000	02/15/2027	02/15/2028	5.0000	2412-16
10/25/2017	U	Series 2017A Safety/Health	B	15,945,000	04/01/2027	04/01/2034	3.8644*	1786-17

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Public Safety and Health *(continued)*

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
11/16/2017	U	Series 2017-1 Safety/Health	B	\$6,065,000		04/01/2027	4.6661*%	2660-17
11/16/2017	U	Series 2017-1 Safety/Health	B	785,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Safety/ Health	B	1,270,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Safety/ Health	B	570,000		04/01/2024	5.0000	2660-17
10/17/2018	U	Series 2018A Safety/Health	B	19,570,000	10/01/2028	04/01/2035	5.0000	2430-18
10/16/2019	U	Series 2019A Safety/ Health	B	22,950,000	04/01/2029	04/01/2036	5.0000	2243-19
10/16/2019	U	Series 2019C Safety /Health Tax	B	200,000	04/01/2029	04/01/2035	2.1273*	2243-19
10/16/2019	U	Series 2019-1 Ref Safety/Health Tax	B	250,000		04/01/2025	1.8535*	2275-19
10/16/2019	U	Series 2019-1 Ref Safety/ Health Tax	B	15,000		04/01/2025	1.9450*	2275-19
TOTAL - PUBLIC SAFETY AND HEALTH				\$179,805,000				

* Weighted average interest rate on the outstanding principal.

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Recreation and Parks

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
08/25/2011	L	Series 2011B Ref Rec & Parks	B	\$ 500,000		07/01/2021	4.6600%*	1098-11
08/25/2011	U	Series 2011A Rec & Parks	B	3,060,000		07/01/2021	5.0000	1100-11
08/25/2011	U	Series 2011A Ref Rec & Parks	B	2,900,000		07/01/2021	5.0000	1097-11
08/25/2011	U	Series 2011A Ref Golf	B	100,000		07/01/2021	5.0000	1097-11
03/21/2012	U	Series 2012-1 Ref Rec & Parks	B	1,540,000		07/01/2022	3.0130*	0222-12
03/21/2012	U	Series 2012-1 Ref Rec & Parks	B	50,000		07/01/2022	3.0000	0222-12
03/21/2012	U	Series 2012-1 Ref Golf	B	235,000		07/01/2022	4.0426*	0222-12
03/21/2012	U	Series 2012-1 Ref Rec & Parks	B	4,425,000		07/01/2022	4.0249*	0222-12
03/21/2012	U	Series 2012-1 Ref Golf	B	60,000		07/01/2022	4.3333*	0222-12
03/21/2012	U	Series 2012-1 Ref Rec & Parks	B	2,650,000		07/01/2022	4.3358*	0222-12
03/21/2012	L	Series 2012-2 Ref Rec & Parks	B	250,000		07/01/2022	4.0000	0223-12
07/24/2012	U	Series 2012A Rec & Parks	B	3,880,000		02/15/2022	4.5000*	1207-12
09/26/2012	U	Series 2012-3 Ref Rec & Parks	B	770,000		08/15/2022	5.0000	1763-12
09/26/2012	L	Series 2012-4 Ref Rec/ Golf	B	120,000	02/15/2023	08/15/2024	4.2500*	1764-12
09/26/2012	L	Series 2012-4 Ref Rec & Parks	B	3,025,000	02/15/2023	08/15/2024	4.2545*	1764-12
06/13/2013	U	Series 2013-1 Ref Rec & Parks	B	1,330,000		07/01/2023	5.0000	0131-13
06/13/2013	U	Series 2013-1 Ref Rec & Parks	B	4,080,000		07/01/2023	5.0000	0131-13
09/04/2013	U	Series 2013A Rec & Parks	B	7,490,000		08/15/2023	5.0000	1876-13
09/04/2013	U	Series 2013C Rec & Parks Tax	B	1,195,000	08/15/2023	08/15/2025	3.5376*	1883-13
06/24/2014	U	Series 2014A Rec & Parks	B	2,895,000	02/15/2024	02/15/2032	4.2988*	1111-14
06/24/2014	U	Series 2014A Rec & Parks	B	18,540,000	02/15/2024	02/15/2030	4.4444*	1112-14
06/24/2014	U	Series 2014A Rec/ Golf	B	165,000	02/15/2024	02/15/2030	4.4848*	1112-14
06/24/2014	L	Series 2014C Rec and Parks Tax	B	850,000	02/15/2024	02/15/2030	3.3600*	1127-14
06/24/2014	L	Series 2014C Rec and Parks Golf Tax	B	200,000	02/15/2024	02/15/2030	3.3600*	1127-14
09/04/2014	U	Series 2014-5 Ref Golf	B	20,000		08/15/2023	5.0000	1700-14
09/04/2014	U	Series 2014-5 Ref Rec/Parks	B	775,000		08/15/2023	5.0000	1700-14
09/04/2014	U	Series 2014-5 Ref Rec/Parks	B	720,000		08/15/2024	5.0000	1700-14
09/04/2014	U	Series 2014-5 Ref Rec/Parks	B	1,490,000		08/15/2024	5.0000	1700-14
08/13/2015	U	Series 2015A Rec & Parks	B	28,060,000	07/01/2025	07/01/2031	3.4419*	1577-15
08/13/2015	U	Series 2015A Rec & Parks Golf	B	635,000	07/01/2025	07/01/2031	3.4567*	1577-15
08/13/2015	L	Series 2015C Rec & Parks Taxable	B	275,000	07/01/2025	07/01/2031	2.9441*	1586-15
03/07/2016	U	Series 2016-1 Ref Rec & Parks	B	8,855,000	07/01/2026	07/01/2028	4.6595*	0234-16
03/07/2016	U	Series 2016-1 Ref Rec & Parks	B	3,675,000		07/01/2026	4.9959*	0234-16

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Recreation and Parks *(continued)*

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
03/07/2016	U	Series 2016-1 Ref Rec & Parks	B	\$2,120,000		07/01/2026	5.0000%	0234-16
03/07/2016	U	Series 2016-1 Ref Rec & Parks	B	680,000		07/01/2026	5.0000	0234-16
03/07/2016	U	Series 2016-1 Ref Rec & Parks	B	3,630,000		07/01/2026	5.0000	0234-16
08/04/2016	U	Series 2016A Rec & Parks	B	30,755,000	08/15/2025	08/15/2032	3.2307*	1604-16
08/04/2016	U	Series 2016A Rec & Parks Golf	B	130,000	08/15/2025	08/15/2032	3.2308*	1604-16
08/04/2016	U	Series 2016C Rec & Parks Taxable	B	1,820,000	08/15/2025	08/15/2032	2.2692*	1604-16
08/04/2016	U	Series 2016C Rec & Parks Golf Tax	B	405,000	08/15/2025	08/15/2032	2.2593*	1604-16
11/16/2016	U	Series 2016-3 Ref Rec & Parks	B	2,200,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Rec & Parks	B	350,000		02/15/2027	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Rec & Parks	B	3,655,000	02/15/2027	02/15/2028	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Rec & Parks	B	265,000		02/15/2027	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Rec & Parks	B	2,025,000		02/15/2027	5.0000	2411-16
11/16/2016	U	Series 2016-3 Ref Rec & Parks	B	15,000		02/15/2027	5.0000	2411-16
10/25/2017	U	Series 2017A Recreation & Parks	B	13,195,000	04/01/2027	04/01/2033	3.8538*	1787-17
10/25/2017	L	Series 2017C Rec & Parks Tax	B	650,000	04/01/2027	04/01/2033	2.6969*	1795-17
11/16/2017	U	Series 2017-1 Rec & Parks	B	7,370,000	10/01/2027	04/01/2028	4.5000*	2660-17
11/16/2017	U	Series 2017-1 Rec & Parks	B	340,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Rec & Parks	B	1,050,000		04/01/2024	5.0000	2660-17
11/16/2017	U	Series 2017-1 Rec & Parks	B	7,485,000	10/01/2027	04/01/2031	4.5017*	2660-17
10/17/2018	U	Series 2018A Recreation & Parks	B	3,150,000	10/01/2028	04/01/2034	5.0000	2431-18
10/17/2018	U	Series 2018A Recreation & Parks	B	23,050,000	10/01/2028	04/01/2034	5.0000	2431-18
10/17/2018	U	Series 2018C Recreation & Parks	B	23,365,000	10/01/2028	04/01/2034	3.6497*	2431-18
10/16/2019	U	Series 2019A Recreation & Parks	B	16,250,000	04/01/2029	04/01/2035	5.0000	2244-19
10/16/2019	U	Series 2019C Rec & Parks Tax	B	8,120,000	04/01/2029	04/01/2035	2.1828*	2244-19
10/16/2019	U	Series 2019-1 Ref Rec & Parks Tax	B	370,000		04/01/2028	1.9850*	2275-19
10/16/2019	U	Series 2019-1 Ref Rec & Parks Tax	B	1,555,000		04/01/2029	2.2292*	2275-19
10/16/2019	U	Series 2019-1 Ref Rec & Parks Tax	B	1,195,000	04/01/2029	04/01/2031	2.2208*	2275-19

TOTAL - RECREATION AND PARKS

\$260,010,000

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General Government

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
08/25/2011	L	Series 2011B Muni Court	B	\$90,000		07/01/2021	4.6667%*	1104-11
06/13/2013	L	Series 2013-2 Ref Muni Court	B	90,000		07/01/2021	5.0000	0132-13
09/04/2013	L	Series 2013B City Auditor	B	1,225,000	08/15/2023	08/15/2024	3.3990*	1884-13
09/04/2013	L	Series 2013B City Auditor	B	3,260,000		08/15/2023	5.0000	1884-13
06/24/2014	L	Series 2014B City Atty/Muni/HR	B	480,000	02/15/2024	02/15/2025	5.0000	1118-14
08/13/2015	L	Series 2015B City Atty/HR	B	105,000	07/01/2025	07/01/2026	3.4286*	1581-15
10/17/2018	L	Series 2018B Auditor	B	2,700,000	10/01/2028	04/01/2029	4.0556*	2436-18
10/16/2019	L	Series 2019B City Auditor	B	5,000,000	04/01/2029	04/01/2030	4.9420*	2251-19
10/16/2019	L	Series 2019-2 Ref Muni Court Tax	B	45,000		04/01/2022	1.6430*	2275-19
TOTAL - GENERAL GOVERNMENT				\$12,995,000				

* Weighted average interest rate on the outstanding principal.

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Internal Service

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
09/26/2012	L	Series 2012-4 Ref Fleet Mgmt	B	\$6,630,000	02/15/2023	08/15/2026	4.2828%*	1764-12
06/13/2013	L	Series 2013-2 Ref Fleet Mgmt	B	640,000	07/01/2023	07/01/2024	5.0000	0132-13
09/04/2013	L	Series 2013D Fiber/Info Tax	B	500,000		08/15/2021	3.0850*	1895-13
09/04/2013	L	Series 2013D Fleet Mgmt Tax	B	3,345,000	08/15/2023	08/15/2024	3.4394*	1892-13
09/04/2013	L	Series 2013D Fiber/Info Tax	B	840,000		08/15/2021	3.0850*	1895-13
09/04/2013	L	Series 2013B Info Svcs SIT	B	140,000		08/15/2021	3.6786*	1888-13
09/04/2013	L	Series 2013B Info Svcs SIT	B	660,000		08/15/2021	5.0000	1888-13
09/04/2013	L	Series 2013B Fleet Mgmt	B	70,000		08/15/2023	3.5735*	1887-13
09/04/2013	L	Series 2013B Fleet Mgmt	B	255,000	08/15/2023	08/15/2024	5.0000	1887-13
09/04/2013	L	Series 2013B Info Svcs	B	140,000		08/15/2021	3.6786*	1888-13
09/04/2013	L	Series 2013B Info Svcs	B	660,000		08/15/2021	5.0000	1888-13
06/24/2014	L	Series 2014B Info Svcs	B	850,000		02/15/2022	5.0000	1120-14
06/24/2014	L	Series 2014B Fleet Mgmt	B	450,000	02/15/2024	02/15/2025	5.0000	1121-14
06/24/2014	L	Series 2014C Info Svcs Tax	B	140,000		02/15/2022	2.6250*	1124-14
06/24/2014	L	Series 2014C Fleet Mgmt Tax	B	2,425,000	02/15/2024	02/15/2025	2.9600*	1125-14
09/04/2014	L	Series 2014-6 Ref Fleet Mgmt	B	1,875,000	08/15/2024	08/15/2025	4.6693*	1701-14
08/13/2015	L	Series 2015B Info Svcs	B	1,040,000		07/01/2023	3.0000	1584-15
08/13/2015	L	Series 2015B Fleet Mgmt	B	1,540,000	07/01/2025	07/01/2026	3.4286*	1583-15
08/13/2015	L	Series 2015C Info Svcs Tax	B	420,000		07/01/2023	2.3600*	1584-15
08/13/2015	L	Series 2015C Fleet Mgmt Tax	B	4,270,000	07/01/2025	07/01/2026	2.6207*	1583-15
03/07/2016	L	Series 2016-2 Ref Fleet Mgmt	B	575,000	07/01/2026	07/01/2027	4.5043*	0235-16
03/07/2016	L	Series 2016-2 Ref Fleet Mgmt	B	255,000		07/01/2026	5.0000	0235-16
08/04/2016	L	Series 2016B Info Svcs SIT	B	650,000		08/15/2024	2.2000*	1613-16
08/04/2016	L	Series 2016B Info Svcs	B	2,200,000		08/15/2024	2.2000*	1613-16
08/04/2016	L	Series 2016B Fleet Mgmt	B	720,000	08/15/2025	08/15/2027	2.6875*	1612-16
08/04/2016	L	Series 2016D Info Svcs Tax	B	1,100,000		08/15/2024	2.0000	1613-16
08/04/2016	L	Series 2016D Fleet Mgmt Tax	B	80,000	08/15/2025	08/15/2027	2.1094*	1612-16
10/25/2017	L	Series 2017B Info Services SIT	B	710,000		04/01/2025	3.7958*	1794-17
10/25/2017	L	Series 2017B Info Services	B	2,065,000		04/01/2025	3.7990*	1794-17
10/25/2017	L	Series 2017C Info Svcs Tax	B	530,000		04/01/2025	2.3898*	1794-17
10/25/2017	L	Series 2017C Fleet Mgmt Tax	B	1,200,000	04/01/2027	04/01/2028	2.4950*	1793-17
10/17/2018	L	Series 2018D Info Services Tax	B	1,410,000		04/01/2026	3.3217*	2439-18
10/17/2018	L	Series 2018B Info Services Fee	B	3,490,000		04/01/2026	3.9183*	2439-18
10/17/2018	L	Series 2018B Info Services SIT	B	1,710,000		04/01/2026	3.9167*	2439-18
10/16/2019	L	Series 2019B Info Svcs SIT	B	550,000		04/01/2027	4.9273*	2249-19
10/16/2019	L	Series 2019B Info Svcs Fee	B	4,585,000		04/01/2027	4.9215*	2249-19
10/16/2019	L	Series 2019D Info Svcs Fee Tax	B	1,000,000		04/01/2027	1.8194*	2249-19
TOTAL - INTERNAL SERVICES				\$49,702,000				

* Weighted average interest rate on the outstanding principal.

** The interest rates identified above are calculated using the actual coupon rates on each series of bonds or notes. The rates are not representative of the true interest costs to the City. As a result of low interest rates, the market for the sale of the City's bonds and notes has frequently produced bids at a stated coupon rate with a premium payable upon the sale of the securities, which creates a true interest cost (TIC) substantially less than the coupon rate.

DT = Debt Type	DF = Debt Form
L = Limited	B = Bond
U = Unlimited	STN = Short Term Note
R = Revenue	LTN = Long Term Note
A = Assessment	

Development

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
08/25/2011	L	Series 2011B Economic Development	B	\$1,050,000		07/01/2021	4.6571%*	1109-11
08/25/2011	L	Series 2011B Corporate Retention	B	90,000		07/01/2021	4.6667*	1110-11
08/25/2011	L	Series 2011B Lincoln Theatre	B	40,000		07/01/2021	4.7500*	1111-11
08/25/2011	L	Series 2011B Public Art	B	10,000		07/01/2021	5.0000	1112-11
08/25/2011	L	Series 2011C Casino Taxable	B	1,500,000		07/01/2021	3.6400*	1113-11
08/25/2011	L	Series 2011B Ref Development	B	860,000		07/01/2021	4.6512*	1098-11
03/21/2012	L	Series 2012-2 Ref Development	B	835,000	07/01/2022	07/01/2023	4.4970*	0223-12
07/24/2012	L	Series 2012B Development	B	2,450,000	08/15/2022	02/15/2023	4.6673*	1216-12
09/26/2012	L	Series 2012-4 Ref Development-Gowdy	B	1,735,000	02/15/2023	08/15/2026	4.2853*	1764-12
09/26/2012	L	Series 2012-4 Ref King Lincoln	B	120,000	02/15/2023	08/15/2024	4.2500*	1764-12
09/26/2012	L	Series 2012-4 Ref Dev-Parsons	B	100,000	02/15/2023	08/15/2024	4.2500*	1764-12
09/26/2012	L	Series 2012-4 Ref Dev-Wheatland	B	100,000	02/15/2023	08/15/2024	4.2500*	1764-12
09/26/2012	L	Series 2012-4 Ref RiverSouth	B	200,000	02/15/2023	08/15/2024	4.2500*	1764-12
06/13/2013	L	Series 2013-2 Ref Housing	B	95,000		07/01/2020	5.0000	0132-13
06/13/2013	L	Series 2013-2 Ref King Lincoln	B	830,000	07/01/2023	07/01/2030	4.1416*	0132-13
06/13/2013	L	Series 2013-2 Ref Woodland Meadows	B	845,000	07/01/2023	07/01/2031	4.0459*	0132-13
06/13/2013	L	Series 2013-2 Ref Development - Corp	B	35,000		07/01/2021	5.0000	0132-13
09/04/2013	L	Series 2013D Economic Dev Tax	B	2,525,000	08/15/2023	08/15/2024	3.4400*	1893-13
09/04/2013	L	Series 2013B Economic Development	B	930,000	08/15/2023	08/15/2024	3.4422*	1890-13
09/04/2013	L	Series 2013B Economic Development	B	2,095,000		08/15/2023	5.0000	1890-13
06/24/2014	L	Series 2014B Economic Dev.	B	3,350,000	02/15/2024	02/15/2025	5.0000	1122-14
06/24/2014	L	Series 2014C Economic Dev Tax	B	1,975,000	02/15/2024	02/15/2025	2.9600*	1126-14
09/04/2014	L	Series 2014-6 Ref Development	B	2,805,000	08/15/2024	08/15/2025	4.6684*	1701-14
09/04/2014	L	Series 2014-6 Ref King Lincoln	B	1,125,000	08/15/2024	08/15/2025	4.6711*	1701-14
09/04/2014	L	Series 2014-6 Ref King Lincoln	B	120,000	08/15/2024	08/15/2028	3.5833*	1701-14
09/04/2014	L	Series 2014-6 Ref Parsons	B	105,000	08/15/2024	08/15/2028	3.5714*	1701-14
09/04/2014	L	Series 2014-6 Ref Wheatland	B	105,000	08/15/2024	08/15/2028	3.5714*	1701-14
09/04/2014	L	Series 2014-6 Ref RiverSouth	B	100,000	08/15/2024	08/15/2026	4.0000	1701-14
08/13/2015	L	Series 2015B Economic Dev	B	5,005,000	07/01/2025	07/01/2026	3.4286*	1585-15
08/13/2015	L	Series 2015C Economic Dev Tax	B	4,505,000	07/01/2025	07/01/2026	2.6198*	1585-15
03/07/2016	L	Series 2016-2 Ref Development	B	850,000	07/01/2026	07/01/2027	4.5000*	0235-16
03/07/2016	L	Series 2016-2 Ref King Lincoln	B	350,000	07/01/2026	07/01/2027	4.5000*	0235-16
03/07/2016	L	Series 2016-2 Ref King Lincoln	B	190,000		07/01/2026	5.0000	0235-16

DT = Debt Type	DF = Debt Form
L = Limited	B = Bond
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R = Revenue	LTN = Long Term Note
A = Assessment	

Development *(continued)*

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate**	Ordinance #
03/07/2016	L	Series 2016-2 Ref Woodland Mwds	B	\$170,000		07/01/2026	5.0000%	0235-16
08/04/2016	L	Series 2016B Economic Dev	B	10,080,000	08/15/2025	08/15/2027	2.6875*	1610-16
08/04/2016	L	Series 2016D Economic Dev Tax	B	8,440,000	08/15/2025	08/15/2027	2.1094*	1610-16
10/25/2017	L	Series 2017C Economic Dev Tax	B	12,400,000	04/01/2027	04/01/2028	2.4950*	1791-17
10/17/2018	L	Series 2018D Development Tax	B	15,840,000	10/01/2028	04/01/2029	3.4050*	2437-18
10/16/2019	L	Series 2019D Economic Dev Tax	B	4,875,000	04/01/2029	04/01/2030	1.9560*	2250-19
10/16/2019	L	Series 2019-2 Ref Dev Housing Tax	B	70,000		04/01/2021	1.6160*	2275-19
10/16/2019	L	Series 2019-2 Ref Dev Roof Prog Tax	B	35,000		04/01/2021	1.6160*	2275-19
10/16/2019	L	Series 2019-2 Ref Emerg Shelt Rep Tax	B	25,000		04/01/2021	1.6160*	2275-19
10/16/2019	L	Series 2019-2 Ref Dev Hotel Demo Tax	B	45,000		04/01/2021	1.6160*	2275-19
10/16/2019	L	Series 2019-2 Ref Economic Dev Tax	B	525,000		04/01/2022	1.6430*	2275-19
10/16/2019	L	Series 2019-2 Ref Economic Dev Tax	B	45,000		04/01/2022	1.6430*	2275-19
10/16/2019	L	Series 2019-2 Ref Lincoln Theater Tax	B	20,000		04/01/2022	1.6430*	2275-19
10/16/2019	L	Series 2019-2 Ref Public Art Tax	B	5,000		04/01/2022	1.6430*	2275-19
10/16/2019	L	Series 2019-2 Ref Casino Tax	B	8,250,000	04/01/2029	04/01/2032	2.0654*	2275-19
10/16/2019	L	Series 2019-2 Ref Development Tax	B	825,000		04/01/2025	1.8518*	2275-19
TOTAL - DEVELOPMENT				\$98,680,000				

* Weighted average interest rate on the outstanding principal.

** The interest rates identified above are calculated using the actual coupon rates on each series of bonds or notes. The rates are not representative of the true interest costs to the City. As a result of low interest rates, the market for the sale of the City's bonds and notes has frequently produced bids at a stated coupon rate with a premium payable upon the sale of the securities, which creates a true interest cost (TIC) substantially less than the coupon rate.

DT = Debt Type	DF = Debt Form
L = Limited	B = Bond
U = Unlimited	STN = Short Term Note
R = Revenue	LTN = Long Term Note
A = Assessment	

Ohio Public Works Commission Loans

Dated Date	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate	Ordinance #
07/01/1998	James Road Improvements	LTN	\$31,159		01/01/2021	0%	2070-98
07/01/1999	Stelzer Road Improvements	LTN	15,171		07/01/2023	0	2325-98
07/01/2000	Greenlawn Avenue	LTN	287,394		07/01/2024	0	NA
07/01/2004	Morse Road Rehab	LTN	213,687		01/01/2029	0	0163-05
07/01/2004	McKinley Ave. Reconstruction	LTN	380,369		01/01/2029	0	0163-05
07/01/2006	Main Street Bridge Replacement	LTN	457,905		01/01/2027	0	1594-06
07/01/2007	Morse Road Rehab.	LTN	535,124		01/01/2031	0	0988-07
07/01/2008	Williams Road Underpass	LTN	428,315		01/01/2031	0	1066-07
01/30/2009	Henderson Road: Olentangy	LTN	8,432		01/01/2031	0	1010-08
07/01/2012	Third Avenue Bridge	LTN	796,398		07/01/2044	0	1150-11
07/15/2014	Morse Road Preserve TIF Imps	LTN	237,091		07/01/2044	0	1928-13
07/01/2015	Parsons Ave Rehab	LTN	237,150		07/01/2035	0	1828-14
TOTAL - OPWC LOANS			\$3,628,195				

DT = Debt Type	DF = Debt Form
L = Limited	B = Bond
U = Unlimited	STN = Short Term Note
R = Revenue	LTN = Long Term Note
A = Assessment	

State Infrastructure Bank (SIB) Loan

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate	Ordinance #
06/02/2016	L	Hamilton Rd S-Curve	LTN	\$7,105,000		05/01/2036	3.4924%*	0428-16
TOTAL SIB LOAN				\$7,105,000				

* Weighted average interest rate on the outstanding principal.

Revenue Obligation Notes (TIFs) - long term fixed

Dated Date	DT	Title	DF	Principal Outstanding	Call Date	Final Maturity Date	Interest Rate	Ordinance #
12/20/2007	R	Harrison West-CFCFA Rev TIF 2007A	LTN	\$1,391,627		05/15/2035	6.00%	0428-16
TOTAL TIF NOTES				\$1,391,627				
TOTAL-NON-ENTERPRISE				\$1,639,804,822				



APPENDIX A

The following document details the flow of funds necessary to ensure the timely payment of debt service for the City's various debt obligations. The City Auditor's Debt Management System currently maintains hundreds of separate debt issues which require an array of processes to properly account for the debt.

It is imperative that we continue the prompt and timely payment of the City's debt obligations, as this is a significant factor in the City's top general obligation bond rating from S&P Global Ratings, Moody's Investors Service, and Fitch Ratings, AAA, Aaa, and AAA, respectively.

CASH FLOW PROCEDURES FOR FIXED RATE BONDS

General Obligation Bonds

The City's general obligation bonds take form in two categories.

- (1) Bearer bonds - the last general obligation bearer bonds issued by the City were dated June 1, 1983. Bonds may no longer be issued in bearer form.
- (2) Book-entry only bonds - the ownership of bonds is recorded electronically by a central depository. The Depository Trust Company ("D.T.C.") serves as the securities depository for all of the City's outstanding general obligation book-entry bonds.

It is the City's intention to continue to issue its bonds exclusively in book entry only form.

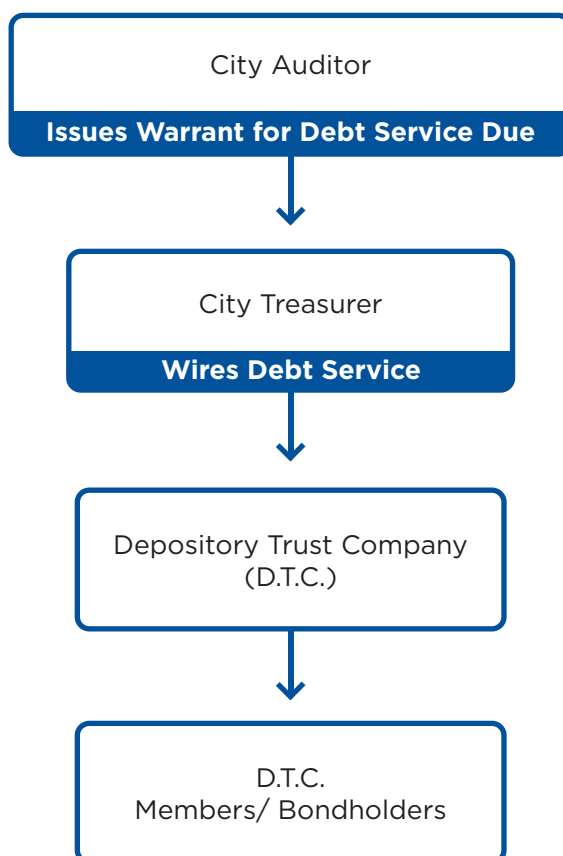
Effective July 1, 2015, the City Auditor's Office now serves as the authenticating agent, registrar, transfer agent, and paying agent for the City's general obligation bonds. Prior to this date, the City's Sinking Fund, a commission established by the City Charter, performed these duties. Pursuant to a review of the City's Charter by the City's Charter Review Commission, recommendations were submitted to the Mayor and City Council proposing amendments to the City's Charter, including but not limited to, the repeal of the City's Sinking Fund, effective July 1, 2015. A special election was held on November 4, 2014 to approve these amendments; the amendments passed.

The exhibit on the next page illustrates the flow of funds (effective July 1, 2015) to pay debt service for the City's outstanding general obligation bonds.

The process begins when the City Auditor's Office verifies the invoice provided by the D.T.C. Once approved, the City Auditor's Office generates an internal debt service billing for an upcoming debt service payment date. A voucher is then created and processed. An auditor's warrant is issued to The Depository Trust Company. The City Auditor's Office presents this warrant to the City Treasurer to be wired to D.T.C.

Actual payment of principal and interest of bonds described in the above categories proceeds as follows.

- (1) Bearer bonds - The City Auditor verifies the authenticity of matured bearer instruments when they are presented either by mail, messenger or in person. The City Auditor will prepare a voucher to be issued to the presenter, process the voucher, and will provide a warrant to the City Treasurer within one working day. The City Treasurer will then make payment by either wire or check. As of June 30, 2020, bearer bonds with their accompanying coupons remain outstanding in the amount of \$847,437.91.
- (2) Book-entry only bonds - The City Auditor provides the City Treasurer with dates, amounts and the D.T.C. reference information for the payment of all principal and interest for book-entry bonds. The City Auditor authorizes, via a warrant, the City Treasurer to make such payment. The City Treasurer then wires, on the appropriate date, book-entry principal and interest payments to D.T.C.



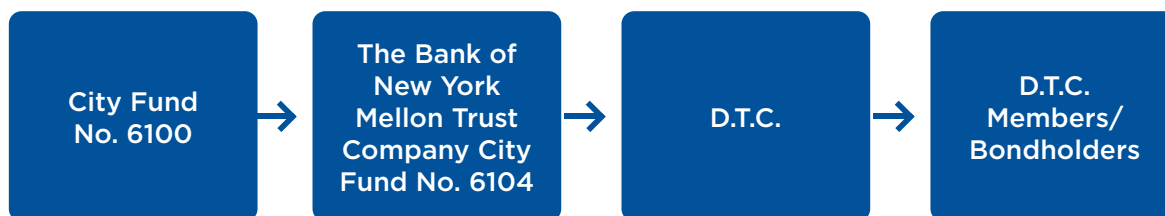
CASH FLOW PROCEDURES FOR SERIES 2006-1 SANITARY SEWER ADJUSTABLE RATE UNLIMITED TAX REFUNDING BONDS

Effective February 11, 2019, the City Auditor's Office appointed The Bank of New York Mellon Trust Co., N.A., as bond registrar and paying agent for the above-referenced bonds. These bonds are variable interest rate bonds with monthly interest payments and have mandatory redemptions of \$4,000,000 on December 1 every year until 2026. The debt service is payable by the City Treasurer, pursuant to a warrant from the City Auditor's Office, to the paying agent, The Bank of New York Mellon Trust Company, on the last business day of the month. The amount is verified by the City Auditor with the paying agent the previous day. The amount due is calculated by using weekly variable interest rates as provided by JPMorgan, as remarketing agent. The City Treasurer then wires the appropriate amount to The Bank of New York Mellon Trust Company. The paying agent then wires the funds to D.T.C., who will then remit the interest due to the members/bondholders.



CASH FLOW PROCEDURES FOR SERIES 2014 AND SERIES 2015 (REFUNDING) SANITARY SEWER FIXED RATE REVENUE BONDS

The Series 2014 Sanitary Sewer Revenue Refunding Bonds and the Series 2015 Sanitary Sewer Revenue Refunding Bonds are fixed rate bonds which require the City Treasurer, with a warrant from the City Auditor's Office, to remit one sixth of the next interest payment along with one twelfth of the next principal payment on the last business day of each month to the trustee, The Bank of New York Mellon Trust Company. When the interest and/or principal due dates arrive, the trustee remits the debt service to D.T.C., who then makes payment to its members/bondholders. These bonds mature on June 1, 2032.



CASH FLOW PROCEDURES FOR SERIES 2008B SANITARY SEWER VARIABLE RATE REVENUE BONDS

The Series 2008B Sanitary Sewer Revenue Bonds are variable interest rate bonds which have monthly interest payments, but no principal payments until the years 2029, 2030, and 2032. The monthly interest payment is payable by the City Treasurer, pursuant to a warrant from the City Auditor's Office, to the trustee, The Bank of New York Mellon Trust Company, on the last business day of the month. The amount is verified by the City Auditor with the trustee the previous day. The amount due is calculated by using weekly variable interest rates as provided by JPMorgan, as remarketing agent. The City Treasurer then wires the appropriate amount to The Bank of New York Mellon Trust Company. The trustee then wires the funds to D.T.C., who will then remit the interest due to the members/bondholders.



CASH FLOW PROCEDURES FOR OTHER OUTSTANDING DEBT OBLIGATIONS

Listed below are other outstanding debt obligations along with a brief description of how the debt is retired.

OWDA LOANS

This debt consists of loans payable to the Ohio Water Development Authority (OWDA) which were incurred to help finance water, storm and sanitary sewer improvements. Some of these loans originated with OWDA. Other loans originated with the Ohio Water Pollution Control Loan Fund (OWPCLF) and are administered by OWDA. An amortization schedule for each loan is maintained by the City Auditor's Office and confirmed annually with OWDA. OWDA is paid twice a year (January 1 and July 1). An invoice for each required loan payment is sent to the Auditor's Office from OWDA. A voucher is written by the Auditor's Office from the sewer operating fund (6100) for loans applicable to the sanitary sewer system and a voucher is written by the Auditor's Office from the water operating fund (6000) for loans applicable to the water system. A voucher will be written by the Auditor's Office from the storm operating fund (6200) for loans applicable to the storm sewer system. Funds are then wired by the City Treasurer.

Payments to prospective contractors building the facilities, water and sewer lines are typically made directly by OWDA to the contractor. Engineering fees, paid initially by the City, are typically reimbursed to the City by OWDA. The City will record a corresponding liability to OWDA at the time of these payments.

OPWC LOANS

The Ohio Public Works Commission (OPWC) extends loans to the City for infrastructure and storm sewer improvements. These loans are non-interest-bearing and have serial maturities. An amortization schedule for each loan is maintained by the City Auditor's Office. OPWC is paid twice a year (January 31 and July 1). An invoice for each required loan payment is sent to the Auditor's Office from OPWC. A voucher is written by the Auditor's Office from the special income tax fund (4430). Funds are delivered via warrant. Due to COVID-19, OPWC has deferred the July 2020 loan repayments. In January 2021, the City will have the option of making a single debt service payment or paying both the deferred July 2020 invoice and the January 2021 invoice.

STATE INFRASTRUCTURE BANK (SIB) LOANS

The City currently has one SIB loan administered and funded by the Ohio Department of Transportation. The loan provides funds for road reconstruction, replacement and construction of a bridge and accompanying infrastructure. An invoice for each required loan payment is sent to the Auditor's Office from the SIB. A voucher is written by the Auditor's Office from the special income tax fund (4430). Funds are then wired by the City Treasurer.

GENERAL OBLIGATION AND REVENUE DEBT SERVICE (July 1, 2020- June 30, 2021)

Date	Description	Principal	Interest
7/1	OPWC-payment deferred by OPWC	\$ —	non-interest bearing
7/1	OWDA/EPA	43,789,344.19	\$ 15,223,651.79
7/1	Fixed Rate General Obligation Debt Service Payment	92,705,000.00	15,553,570.77
7/31	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate	—	1,250,029.17
	2008B Sewer Revenue Bonds - Variable Rate	—	25,000.00 ⁽¹⁾
7/31	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	—	22,000.00 ⁽²⁾
8/7	Broad Meadows Special Assessment Bonds Principal and Interest Payment	3,271.00	735.95
8/17	Fixed Rate General Obligation Debt Service Payment	57,775,000.00	18,598,650.63
8/31	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate	—	1,250,029.17
	2008B Sewer Revenue Bonds - Variable Rate	—	25,000.00 ⁽¹⁾
8/31	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	—	22,000.00 ⁽²⁾
9/30	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate	—	1,250,029.17
	2008B Sewer Revenue Bonds - Variable Rate	—	25,000.00 ⁽¹⁾
9/30	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	—	22,000.00 ⁽²⁾
10/1	Fixed Rate General Obligation Debt Service Payment	—	26,051,142.92
10/30	Lockbourne Rd Special Assessment Bonds Principal and Interest Payment	27,821.00	2,295.18
10/30	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate	—	1,250,029.17
	2008B Sewer Revenue Bonds - Variable Rate	—	25,000.00 ⁽¹⁾
10/30	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	—	22,000.00 ⁽²⁾
11/2	Hamilton Rd SIB Loan Interest Payment	165,000.00	129,131.06
11/16	RiverSouth Revenue Bonds Debt Service Payment	3,435,000.00	1,289,281.25
11/30	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate	—	1,250,029.17
	2008B Sewer Revenue Bonds - Variable Rate	—	25,000.00 ⁽¹⁾
11/30	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	4,000,000.00	22,000.00 ⁽²⁾
12/1	Fixed Rate General Obligation Debt Service Payment	3,340,000.00	359,600.93
12/31	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate	—	1,250,029.17
	2008B Sewer Revenue Bonds - Variable Rate	—	25,000.00 ⁽¹⁾
12/31	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	—	18,000.00 ⁽²⁾
1/4	OWDA/EPA (estimated)	45,000,000.00	17,000,000.00

GENERAL OBLIGATION AND REVENUE DEBT SERVICE (July 1, 2020- June 30, 2021)

Date	Description	Principal	Interest
1/4	Fixed Rate General Obligation Debt Service Payment	\$ —	\$13,513,520.77
1/29	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate 2008B Sewer Revenue Bonds - Variable Rate	— —	1,250,029.17 25,000.00 ⁽¹⁾
1/29	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	—	18,000.00 ⁽²⁾
1/29	OPWC (estimated) - includes 7/1/2020 deferral	380,000.00	non-interest bearing
2/16	Fixed Rate General Obligation Debt Service Payment	41,355,000.00	17,699,274.26
2/26	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate 2008B Sewer Revenue Bonds - Variable Rate	— —	1,250,029.17 25,000.00 ⁽¹⁾
2/26	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	—	18,000.00 ⁽²⁾
3/31	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate 2008B Sewer Revenue Bonds - Variable Rate	— —	1,250,029.17 25,000.00 ⁽¹⁾
3/31	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	—	18,000.00 ⁽²⁾
4/1	Fixed Rate General Obligation Debt Service Payment	65,075,000.00	26,051,142.92
4/30	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate 2008B Sewer Revenue Bonds - Variable Rate	— —	1,250,029.17 25,000.00 ⁽¹⁾
4/30	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	—	18,000.00 ⁽²⁾
4/30	Hamilton Rd SIB Loan Debt Service Payment	170,000.00	126,951.00
5/21	RiverSouth Revenue Bonds Debt Service Payment	2,940,000.00	1,217,056.25
5/28	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate 2008B Sewer Revenue Bonds - Variable Rate	— —	1,250,029.17 25,000.00 ⁽¹⁾
5/28	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	—	18,000.00 ⁽²⁾
6/1	Fixed Rate General Obligation Debt Service Payment	515,000.00	316,364.73
6/30	Revenue Bond Payments (wired from the City to the escrow agent) 2014 and 2015 Sewer Revenue Refunding Bonds - Fixed Rate 2008B Sewer Revenue Bonds - Variable Rate	— —	1,250,029.17 25,000.00 ⁽¹⁾
6/30	Series 2006-1 Sewer Variable General Obligation Bonds Interest Payment	—	18,000.00 ⁽²⁾

(1) The City's monthly interest payments for the Series 2008 Variable Rate Sewer Revenue Bonds are estimated using the average interest rate of the bonds since inception.

(2) The City's monthly interest payments for the Series 2006-1 Sewer Variable Rate General Obligation Bonds are estimated using the average interest rate of the bonds since inception.



APPENDIX B

Guidelines for Debt Issuance

RECOMMENDED BY COLUMBUS CITY AUDITOR

REVISED JULY 2019

INTRODUCTION

These recommended guidelines, while not a statute, enjoy permanent communication status with the City's legislative body, the City Council, for acknowledgement.

Debt issued by the City of Columbus (the "City"), whether bonds or notes, will be governed by all applicable laws and regulations of the United States of America, the State of Ohio, and the City of Columbus, Ohio; in particular, the Uniform Public Securities Act (Chapter 133) of the Ohio Revised Code (ORC), and the Charter and ordinances of the City of Columbus.

Uses of bond or note proceeds will also be governed by their stated purpose clauses.

The City shall borrow monies for capital purposes only. The City shall not borrow monies for operating purposes.

Where appropriate, the City should consider funding capital improvements with existing cash. Adequate reserve levels, debt service coverage and other financial metrics, including credit rating metrics, must be considered when assessing an appropriate amount of cash to be held in reserves. Considerations for the appropriate mix of cash and debt funded projects can include: credit ratings metrics, tax or rate payer affordability, and other considerations related to prudent financial management of the City's debt program.

The debt, where applicable, will also be developed to comply with all applicable IRS regulations.

DEBT ISSUANCE GUIDELINE OBJECTIVES

A major goal of these guidelines will be, where possible, to protect and maintain the City's enviable AAA credit ratings. These enviable ratings will result in lower interest rates to the taxpayers and utility rate payers of our community.

CITY DEBT PROGRAM

As detailed more fully herein, the City's debt program includes general obligation debt supported by City income taxes (paid from the Special Income Tax fund), general obligation debt supported by enterprise fund revenues, and enterprise revenue supported debt.

VOTER AUTHORIZATION - GENERAL OBLIGATION DEBT

The City should continue its practice of seeking voter approval for issuances to be backed by the City's general obligation pledge, applicable primarily for projects planned through the City's capital improvement plan. This process should take place at intervals of every three to five years.

LIMITATIONS

The City must comply with all legal debt limitations. Limitations include: the total general obligation net debt (as defined in the ORC) limit of 10.5% of all property in the City as listed and assessed for taxation; the net debt limit of 5.5% for unvoted general obligation debt; and the “ten mill” limitation applicable to the highest year of unvoted general obligation debt service (principal and interest) of overlapping jurisdictions.

The ten mill limitation on unvoted debt service, both principal and interest, can be impacted by the debt issuances of other governmental entities within the respective counties in which Columbus lies; presently, Franklin, Fairfield, and Delaware. Clearly, other overlapping political subdivisions can negatively impact this formula. In order to recognize the need to allow for emergencies the City should be very cautious in issuing unvoted general obligation debt that would result in inside millage of the City and overlapping subdivisions exceeding nine mills at the time the debt is issued. Unvoted, or limited, general obligation debt, because of the usual magnitude of utility projects, should not, to the extent possible, be used for enterprise activities.

An additional self-imposed limitation is applied to debt supported by the City’s income tax.

Non-enterprise capital projects such as parks, playgrounds, streets, fire stations, police stations, heavy fire equipment, certain development projects, etc., are primarily supported by the City’s income tax debt service set aside. Projections of income tax collections and other funds available for such debt service over a future ten year period must exceed projected debt service and other applicable costs by a coverage of not less than 1.5 times (1.5x).

Coverage for income tax supported debt is defined as available funds at the end of the previous year added to the estimated collections of the current year divided by debt service requirements and other applicable costs of the current year. Coverage should never fall below a ratio of 1.5 times.

Added coverage allows the City to continue using its property tax collections (inside millage) for General Fund operating purposes rather than dedicating part of such collections to the payment of debt service on unvoted (limited) general obligation debt.

The added coverage also allows the City to avoid levying the “outside” millage approved by voters for debt service on voted (unlimited) general obligation debt.

From the bond holder’s perspective, the voted, but unlevied, debt service millage provides additional coverage for unlimited general obligation debt.

Enterprise fund debt (water, sanitary sewer, storm sewers, electricity and City-owned parking garages) is to be supported by user rates sufficient to maintain operations and debt service of the respective enterprise.

Enterprise fund debt may likely be a combination of unlimited general obligation debt (limited general obligation debt should be used sparingly in enterprises) and revenue-type debt including Ohio Water Development Authority administered debt. Adjusted net revenues of an enterprise should never fall below 1.5 times (1.5x) total debt service of the enterprise. Adjusted net revenues are defined as gross revenues less operation and maintenance (O&M) expenses, exclusive of depreciation and amortization, plus the enterprise’s unrestricted cash at the end of the prior year in both its operating fund and reserve funds, net of 10% of the previous year’s O&M.

TYPES OF DEBT

Bonds and notes should be in the form of general obligation debt for non-enterprise capital projects, but may be general obligation or revenue bonds when considering enterprise activities and certain unique revenue-dependent issues. Enterprise activities such as Sanitary Sewer, Water, and Storm Sewer may find their most advantageous funding sources for the City to be loans administered through the Ohio Water Development Authority (OWDA).

The City must always be cognizant of researching available interest rates from multiple sources of funding, and should be aware that unlike most City-issued bonds, OWDA loans are not callable. In a significantly declining interest rate environment the City would not have the opportunity to refund the OWDA administered loans.

The type of debt issued by the City will be determined by the City Auditor in consultation with the City's municipal advisor. Such debt may be in the form of short term or long term, general obligation or revenue (special obligation) debt.

Short term notes providing cash flow needs for the City's operations should not be utilized. The City's relatively stable and even cash collections cycle should eliminate the need for consideration of any short term borrowing for operating purposes.

The use of short term debt for capital purposes in the form of bond anticipation notes (BANs) and/or variable rate demand obligations (VRDOs), bonds or notes, should also be limited in their use. The outstanding amount of BANs and/or VRDOs shall not exceed 25% of the City's total outstanding bonds and notes and shall be not more than 25% of the debt of each of the City's major utilities or income tax supported debt.

The use of interest rate swaps or any form of derivatives is PROHIBITED.

DEBT STRUCTURE CONSIDERATIONS

Debt may pay interest in a fixed rate mode or a variable rate mode. Debt should, preferably, be structured with level principal repayments. Level debt service repayments, or any legal variation may, however, be considered where appropriate. Special obligations may include amounts for capitalized interest in the initial period(s).

Generally, it will be advantageous to the City for debt to have call provisions. The call date should not exceed ten and a half years from the issuance date. Shorter call dates should be evaluated on an issue-by-issue basis. In the case of certain variable rate debt, put provisions may be considered.

DEBT REFINANCING

The City must always be cognizant of refunding opportunities that would reduce the cost of existing debt. Debt refinancing may include current refundings or advance (defeasances) refundings. After the passage of the Tax Cuts and Jobs Act (effective January 1, 2018), issuers may no longer issue tax-exempt bonds to advance refund prior tax-exempt bonds. Taxable Bonds can be issued to advance refund previously issued tax-exempt debt. The City should expect a present value savings resulting from advance refundings (defeasances) of a minimum of 3%, preferably more, of debt service on the bonds being refunded. Refunding efficiency metrics can be considered on an issue-by-issue basis to assess the benefit of an advance refunding relative to other alternatives, including a current refunding at the call date. Appropriate escrow securities for a defeasance escrow should be determined on an issue by issue basis, subject to relevant legal and/or bond indenture limitations.

MATURITIES

As indicated earlier, all City bonds and notes are subject to the Uniformed Public Securities Act (Chapter 133) of the Ohio Revised Code (ORC) which includes a recitation of the maximum years of debt life allowed for various capital projects. Preferably the maximum life for any City project when considering debt issuance is not more than 20 years. There may be resulting assets (e.g. public utilities) where a 25-year life may be allowed. Under no circumstances shall the maximum maturity of the debt be longer than that allowed in the ORC or the estimated useful life of the asset(s) to be acquired as determined by the City Auditor, whichever is shorter.

BOND SALE METHOD

The process of borrowing money, selling of bonds and notes, can be conducted through nationally advertised competitive sales or through negotiated placement. The method chosen in the past has been determined by the complexity of the respective bond issue. The more complex issues usually lend themselves toward a negotiated sale where more simple issues lend themselves toward a competitive sale. Considerations for type of sale should include: volatility of market conditions, size of the bond sale, components of transaction (new money and/or refunding), complexity of tax status (tax-exempt and/or taxable), source of security for the bonds, and the goals for syndicate composition (i.e., working with local, MBE/WBE, veterans or other firms given policy considerations). Where most cost effective and/or efficient from an execution standpoint, privately placed debt (i.e. debt directly purchased by a bank) may be considered. Privately placed debt may be most applicable for unique and relatively small bonds or notes, such as special assessments.

SELECTION OF BOND PROFESSIONALS

In order to meet all of the above objectives, it is necessary for the City to engage professional bond counsel, municipal advisor, and tax counsel, including counsel to assist the City with arbitrage and rebate compliance. Bond counsel, municipal advisor, tax counsel, and other professional service providers should be chosen based on their demonstrated skills and knowledge of the City of Columbus. The City must insist that fees for professional services be competitive in the industry. When selecting service providers, prioritization must be given for the quality, experience, and expertise of the providers. All professional advisors will be continually monitored for quality of services and competitive fee structure.

CREDIT RATINGS

The City should seek credit ratings on its bond issues from the major rating agencies except where such ratings are deemed unnecessary, such as for relatively small assessment bonds, as determined by the City Auditor in consultation with the municipal advisor. The City should seek a rating or ratings on its note issues when considered advantageous to the City for financial or other reasons as determined by the City Auditor in consultation with the municipal advisor.

The credit rating agencies include quantitative analyses as part of the credit ratings process. When preparing for an issuance of debt or no less than annually, the City should evaluate certain key credit rating metrics. Working with the municipal advisor, the City Auditor shall conduct a review of Moody's Investors Service's (Moody's) Scorecard Analysis with respect to the City's general obligation bonds. Also, the municipal advisor should analyze Moody's Financial Ratio Analysis (MFRA) data of the City compared to medians provided by Moody's as well as peer cities.

Metrics that the City and municipal advisor should monitor include:

- Direct Debt to Population – Direct Net Debt Outstanding divided by Population
- 10-year principal payout – Principal paid within 10 years

The City should maintain on-going relationships with the credit rating analysts responsible for analyzing its credit ratings, providing updates on significant financial events and trends on a timely basis. The City Auditor will manage the City's relationship and communications with the rating agencies.

CREDIT ENHANCEMENT

Credit enhancements may be considered. However, by maintaining its enviable credit ratings on both general obligations and user-rate supported special obligations of its enterprises, credit enhancements of the City's debt should not be necessary. When issuing VRDOs, bank letters of credit (LOC) or standby bond purchase agreements (SBPA) may be considered. The City's offerings of its own liquidity capability through City Code Section 325.05 should result in a lower cost of borrowing in the case of VRDOs to the City. This lower cost of borrowing should be considered and balanced in consideration of the opportunity costs associated with potential alternative investments of City funds. When considering the issuance of VRDOs, all costs must be recognized, including: anticipated interest rates, remarketing fees, LOC or SBPA (if used) fees, tender agent fees, annual rating agencies maintenance fees and other costs that may apply.

CREDIT SUPPORT

The City should NOT lend its own credit as support or enhancement for the debt of others, public or private. Only when there exists a statutorily imposed tax or project generated revenue specifically designated for (and in sufficient amounts) to service such debt, both principal and interest, should the City consider enhancing another public entity's debt. In the case of projects supported by project generated revenue, the City should rely on independent third party market analyses, from industry recognized professionals, to ascertain the viability of the revenues' sufficiency to pay debt service. The City should never consider enhancing the debt of private entities.

INVESTMENT OF DEBT PROCEEDS

Investment of debt proceeds shall be governed by City Code Sections 321 and 325 and, where applicable, provisions of trust agreements in conjunction with special obligation bonds. Such trust agreements must, however, be in accordance with City Code Sections 321 and 325 and/or the Ohio Revised Code. Investments by trustees will be monitored by the City Auditor.

DISCLOSURE

Preliminary Official Statements (POSs) which neither contain material misstatements nor fail to state material facts, must be prepared and distributed prior to the actual sale of the bonds. Likewise, Official Statements (OSs) must be issued after their sale. POSs and OSs should be prepared and issued for the City's notes whenever market conditions indicate such issuances will be advantageous to the City.

POST-ISSUANCE ACCOUNTING

The accounting for all bond and note proceeds must be clearly identified and maintained by the City Auditor for each capital project recited in the authorizing ordinances and amendments thereto. While accounting records are maintained by the City Auditor, the Department of Finance and Management maintains certain records for the purpose of “check and balance” accuracy.

Additional requirements imposed by the IRS are devoted to IRS Post-Issuance Compliance Requirements and must be adhered to.

REPORTING

In addition to the City’s Comprehensive Annual Financial Report (CAFR), it is recommended that the City continue to provide as a public disclosure document, the Bond and Note Report of the City which now is being reported as of mid-year by the City Auditor. The City must comply with all initial and continuing disclosure requirements of all applicable regulatory bodies such as the Municipal Securities Rulemaking Board (MSRB) and the Securities and Exchange Commission (SEC).

INVESTOR RELATIONS

The City should ensure key financial data (audited financial statements, credit rating information, etc.) is frequently updated and easily accessible to potential investors on the City’s website or information repository. The City, in consultation with bond counsel and the municipal advisor, should regularly assess the need for investor presentations, tours, or other coordinated communications.

RECORDS RETENTION

All documents related to bond and/or note issues shall be retained in compliance with the City’s official Record Retention schedules and the Post-Issuance Compliance Requirements of the IRS.

OTHER

The environment of borrowing and investing money changes nearly constantly. New products will continue to emerge. The paramount consideration should always be protection of the City’s resources. The City should never succumb to chasing higher investment yields or lower borrowing rates by assuming inappropriate risks. Every precaution must be taken in the City’s borrowing and investing activities to maintain the City’s strong fiscal foundation.

Prepared by:

Megan N. Kilgore, *City Auditor*
Columbus, Ohio

- ✓ Original Issuance September 2010
- ✓ Revised Issuance July 2012
- ✓ Revised Issuance August 2014
- ✓ Revised Issuance March 2017
- ✓ Revised July 2019



A Report on Its Bonds and Notes Outstanding

AT JUNE 30, 2019 AND JUNE 30, 2020

THE CITY OF
COLUMBUS

OFFICE OF MEGAN N. KILGORE,
CITY AUDITOR

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