



Financial Services Board of Directors Communication

Date: December 17, 2020

To: Great Lakes Water Authority Board of Directors

From: Kim Garland, CPA, Reporting & Compliance Manager

Re: GLWA CAFR Updates – Debt Service Coverage Items

Background: The GLWA Comprehensive Annual Financial Report (CAFR) includes a calculation of annual debt service based upon the values presented in the audited financial reports. The debt service coverage ratio assists external stakeholders (for example, investors and bond rating agencies) in understanding the extent to which current year revenues will cover required debt payments. Because revenues from the DWSD and GLWA are pledged for debt service payments, they are both included in the GLWA debt service coverage calculation.

Analysis: Changes were received from DWSD on December 10, 2020 that result in a positive impact on their draft financial results for FY 2020 and a modest, positive impact on the calculation of debt service coverage. The attached pages highlight where respective edits will be made to the GLWA CAFR. It is anticipated that the DWSD's financial statements will be issued before the end of the calendar year.

It should be noted that these changes have no impact on the GLWA audited financial statements, financial position, or financial results or FY 2020 but are necessary to properly report the fiscal year ending June 30, 2020 debt service coverage ratio information.

Restricted Cash Required for Debt Reserves (\$000)							
	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Water Fund	\$ 4,361	\$ 16,353	\$ 20,970	\$ 21,547	\$ 46,541	\$ 46,333	\$ 77,920
Sewer Disposal Fund	18,903	52,206	64,830	65,975	89,587	89,237	105,556
Total Debt Reserves	\$ 23,264	\$ 68,559	\$ 85,800	\$ 87,522	\$ 136,128	\$ 135,570	\$ 183,476

FY 2020 Results

GLWA is committed to ensuring the long-term sustainability of the water and sewage disposal systems. Beyond the FY 2020 bond refunding program noted, below are key financial highlights from FY 2020.

1. Liquidity - Strong liquidity with 1,086 days cash on hand for the water system and 593 days for the sewage disposal system as shown on the Schedule of Days Cash in the supplementary information.

2. Debt Service Coverage - Excellent debt service coverage for both the water and sewage disposal funds. The water fund reports debt coverage for senior lien bonds at **1.98** times and all bonds at 1.43 times. The sewage disposal fund reports debt coverage for senior lien bonds at 2.16 times and all bonds at 1.30 times. Detail for all debt types can be found in the Debt Service Coverage schedule in the statistical section.

3. Revenue Stability - Predictable wholesale budgeted with actual revenues within 0.46 percent (\$1.4 million) more than budget for the water system and 0.14 percent (\$0.4 million) less than budget for the sewage disposal system. The Schedule of Revenue Requirements in the Supplementary Information section provides more information related to the basis for which we establish service charges compared to actual results.

4. Controlled Operations Spending Results in Positive Overall Budget Variances - Both the water and wastewater operations controlled their spending within 5% as shown in the Schedule of Operations and Maintenance Expense for each system in the Supplementary Information section. Both systems had overall positive budget variances of \$7.5 million for the water fund and \$11.3 million for the sewage disposal system as shown in the Schedule of Revenue Requirement for each system in the Supplementary Information section. Generally, the overall positive budget variances will be directed toward future years' pay-as-you go capital funding.

Solid Foundation for Sustainability

As GLWA matures as an organization, the connections that our team members have with each other, and with our many stakeholders, is evident. This is most noticeable when you see the passion of multi-disciplinary teams, working through the development of a long-term plan that encompasses engineering, operations, finance, and many others to chart the course for the future - while never forgetting about the end-consumer and the environment. Below are topics that we cover when

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2020

NOTE 13 – LONG-TERM DEBT (cont.)

REVENUE BONDS – PLEDGES OF FUTURE REVENUE

The Authority has pledged assets to secure the repayment of the revenue bonds and State of Michigan revolving fund loans. The Water System bonds and loans are paid solely from the net revenues of the Water System and the Sewer System bonds and loans are paid solely from the net revenues of the Sewer System. Net revenues are defined in the Great Lakes Water Authority Water and Sewer Master Bond Ordinances as all revenues except those transferred to the Operation and Maintenance funds. These revenues are further defined to include the revenues from the Retail Customers who are serviced under the Water and Sewer Services Agreement with the City of Detroit which are reported in the financial statements of the City of Detroit Water and Sewerage Department. The pledged revenues calculation for the fiscal year ending June 30, 2020 includes revenues reported by the Great Lakes Water Authority and the City of Detroit Water and Sewerage Department as this revenue is pledged for payment of the bonds and loans of the Great Lakes Water Authority.

The general purpose of the Water System debt is to provide funding for various water treatment and transmission capital improvements, refund certain water revenue bonds, pay termination amounts for interest rate swap agreements and fund reserve requirements. The general purpose of the Sewer System bonds is to provide funding for various wastewater treatment and collection activities, capital improvements, refund certain sewage disposal revenue bonds, pay termination amounts for interest rate swap agreements and fund reserve requirements. The term of pledge commitment for the water bonds is 2050 and the sewage disposal bonds is through 2049.

See table below for pledged revenue coverage as of June 30, 2020:

	Water Fund	Sewage Disposal Fund
Remaining principal and interest requirement	\$ 3,662,291,388	\$ 4,286,915,185
Principal and interest funding requirement for the year ending June 30, 2020 (computed consistent with rate covenant basis for rate determination purposes. Not applicable for purpose of additional bond test)	\$ 169,183,461	\$ 245,783,258
Pledged revenue for the year ending June 30, 2020	\$ 242,657,047	\$ 318,792,554
Pledged revenue collected as a percentage of funding requirement	143 %	130 %

GREAT LAKES WATER AUTHORITY

CALCULATION OF DEBT SERVICE COVERAGE - GAAP BASIS - WATER FUND

As of June 30, 2020

	Water Fund			
	Adopted Budget	Amended Budget	Actual	Variance
Operating Revenue				
Suburban Wholesale Customers [1]	\$ 309,284,500	\$ 304,634,200	\$ 306,049,429	\$ 1,415,229
Detroit Customers				
Wholesale Service Charge Revenue [1]	21,295,500	21,295,500	21,295,500	-
Local Service Revenues [2]	75,007,000	75,007,000	73,817,339	[1,189,661]
Subtotal - Detroit Customers	96,302,500	96,302,500	95,112,839	[1,189,661]
Other Operating Revenue-GLWA	-	2,400	256,300	253,900
Other Operating Revenue-DWSD	2,200,000	2,200,000	7,289,468	5,089,468
Other Nonoperating Revenue-GLWA	-	-	1,656,336	1,656,336
Earnings on investments less WRAP and construction fund investment earnings	9,084,200	8,084,200	9,115,115	1,030,915
Total Revenue	416,871,200	411,223,300	419,479,487	8,256,187
Operating Expenses				
Operations and Maintenance Regional System	131,490,500	126,840,200	131,840,040	4,999,840
Operations and Maintenance transfer to Local System	34,662,400	34,662,400	34,662,400	-
Legacy Pension Obligations Regional System [3]	6,048,000	6,048,000	6,048,000	-
Legacy Pension Obligations Local System [3]	4,272,000	4,272,000	4,272,000	-
Total Operating Expenses	176,472,900	171,822,600	176,822,440	4,999,840
Pledged revenues for the year ending June 30, 2020	\$ 240,398,300	\$ 239,400,700	\$ 242,657,047	\$ 3,256,347
Principal and interest funding requirement for the year ending June 30, 2020 [4]:				
Senior Lien Bonds	\$ 123,909,900	\$ 122,318,900	\$ 122,318,928	\$ 28
Second Lien Bonds	47,849,300	47,849,400	44,163,725	(3,685,675)
Total Senior and Second Lien Bonds	171,759,200	170,168,300	166,482,653	(3,685,647)
Junior Lien Bonds	2,909,100	2,701,200	2,700,808	(392)
Total All Bonds	\$ 174,668,300	\$ 172,869,500	\$ 169,183,461	\$ (3,686,039)
GAAP Basis Debt Service Coverage				
Senior Lien Bonds	1.94	1.96	1.98	0.02
Senior and Second Lien Bonds	1.40	1.41	1.46	0.05
All Bonds, Including SRF Junior Lien	1.38	1.38	1.43	0.05

[1] Total GLWA Regional System Wholesale Revenue reported net of bad debt allowance and \$6,652,348 for the KWA debt service credits

[2] Local Service Revenue reported net of bad debt allowance.

[3] The legacy pension obligations reflects only the Legacy Pension Obligation as defined in Section 504 (c) of the Water Master Bond Ordinance.

[4] Computed consistent with rate covenant basis for rate determination purposes.

GREAT LAKES WATER AUTHORITY

CALCULATION OF DEBT SERVICE COVERAGE - GAAP BASIS - SEWAGE DISPOSAL FUND
As of June 30, 2020

	Sewage Disposal Fund			
	Adopted	Amended	Actual	Variance
	Budget	Budget		
Operating Revenue				
Suburban Wholesale Customers [1]	\$ 266,363,600	\$ 266,363,600	\$ 266,003,286	\$ (360,314)
Industrial waste charges	13,743,600	7,833,600	7,854,593	20,993
Pollutant surcharges	-	5,910,000	6,448,508	538,508
Subtotal - Regional System Suburban Wholesale Customers	<u>280,107,200</u>	<u>280,107,200</u>	<u>280,306,387</u>	<u>199,187</u>
Detroit Customers				
Wholesale Service Charge Revenue [1]	185,807,300	185,807,300	185,807,300	-
Local Service Revenues [2]	<u>101,867,700</u>	<u>101,867,700</u>	<u>80,935,263</u>	<u>(20,932,437)</u>
Subtotal - Detroit Customers	287,675,000	287,675,000	266,742,563	(20,932,437)
Other Operating Revenue-GLWA	-	400,000	521,957	121,957
Other Operating Revenue-DWSD	500,000	500,000	914,969	414,969
Other Nonoperating Revenue-GLWA	5,960,000	5,960,000	5,969,660	9,660
Earnings on investments less WRAP and construction fund investment earnings	<u>8,730,800</u>	<u>7,730,800</u>	<u>7,775,080</u>	<u>44,280</u>
Total Revenue	<u>582,973,000</u>	<u>582,373,000</u>	<u>562,230,616</u>	<u>(20,142,384)</u>
Operating Expenses				
Operations and Maintenance Regional System	187,057,200	181,925,800	174,514,562	(7,411,238)
Operations and Maintenance transfer to Local System	69,343,500	69,343,500	55,243,500	(14,100,000)
Legacy Pension Obligations Regional System [3]	10,824,000	10,824,000	10,824,000	-
Legacy Pension Obligations Local System [3]	<u>2,856,000</u>	<u>2,856,000</u>	<u>2,856,000</u>	<u>-</u>
Total Operating Expenses	<u>270,080,700</u>	<u>264,949,300</u>	<u>243,438,062</u>	<u>(21,511,238)</u>
Pledged revenues for the year ending June 30, 2020	<u>\$ 312,892,300</u>	<u>\$ 317,423,700</u>	<u>\$ 318,792,554</u>	<u>\$ 1,368,854</u>
Principal and interest funding requirement for the year ending June 30, 2020 [4]:				
Senior Lien Bonds	\$ 148,568,300	\$ 147,533,800	\$ 147,310,565	\$ (223,235)
Second Lien Bonds	<u>45,878,900</u>	<u>45,878,900</u>	<u>45,878,850</u>	<u>(50)</u>
Total Senior and Second Lien Bonds	194,447,200	193,412,700	193,189,415	(223,285)
Junior Lien Bonds	<u>52,941,400</u>	<u>52,659,300</u>	<u>52,593,843</u>	<u>(65,457)</u>
Total All Bonds	<u>\$ 247,388,600</u>	<u>\$ 246,072,000</u>	<u>\$ 245,783,258</u>	<u>\$ (288,742)</u>
GAAP Basis Debt Service Coverage				
Senior Lien Bonds	2.11	2.15	2.16	0.01
Senior and Second Lien Bonds	1.61	1.64	1.65	0.01
All Bonds, Including SRF Junior Lien	1.26	1.29	1.30	0.01

[1] Total GLWA Regional System Wholesale Revenue reported net of bad debt allowance.

[2] Local Service Revenue reported net of bad debt allowance.

[3] The legacy pension obligations reflects only the Legacy Pension Obligation as defined in Section 504 (c) of the Water Master Bond Ordinance.

[4] Computed consistent with rate covenant basis for rate determination purposes.

GREAT LAKES WATER AUTHORITY

DEBT SERVICE COVERAGE HISTORY - WATER FUND

As of June 30, 2020

	2020	2019 [3]	2018 [3]	2017 [3]	2016 [1] & [3]
GAAP Basis					
Pledged revenue	<u>\$ 242,657,047</u>	<u>\$ 243,712,390</u>	<u>\$ 271,314,197</u>	<u>\$ 282,545,208</u>	<u>\$ 276,399,904</u>
Principal and interest funding requirement [2]:					
Senior and second lien bonds					
Senior lien bonds	\$ 122,318,928	\$ 119,230,820	\$ 127,687,420	\$ 134,234,660	\$ 128,177,999
Second lien bonds	<u>44,163,725</u>	<u>46,214,385</u>	<u>42,852,813</u>	<u>38,990,023</u>	<u>41,178,843</u>
Total senior and second lien bonds	<u>166,482,653</u>	<u>165,445,205</u>	<u>170,540,233</u>	<u>173,224,683</u>	<u>169,356,842</u>
Junior lien bonds	<u>2,700,808</u>	<u>2,521,249</u>	<u>2,009,658</u>	<u>1,785,328</u>	<u>1,781,683</u>
Total all bonds	<u>\$ 169,183,461</u>	<u>\$ 167,966,454</u>	<u>\$ 172,549,891</u>	<u>\$ 175,010,011</u>	<u>\$ 171,138,525</u>
GAAP basis debt service coverage					
Senior lien bonds	1.98	2.04	2.12	2.10	2.16
Senior and second lien bonds	1.46	1.47	1.59	1.63	1.63
All bonds, including SRF junior lien	1.43	1.45	1.57	1.61	1.62
Rate Covenant Basis [4]					
Pledged revenue	<u>\$ 237,025,827</u>	<u>\$ 254,119,800</u>	<u>\$ 264,608,700</u>	<u>\$ 272,268,900</u>	
Principal and interest funding requirement [2]:					
Senior and second lien bonds					
Senior lien bonds	\$ 122,318,928	\$ 119,230,820	\$ 127,687,420	\$ 134,234,660	
Second lien bonds	<u>44,163,725</u>	<u>46,214,385</u>	<u>42,852,813</u>	<u>38,990,023</u>	
Total senior and second lien bonds	<u>166,482,653</u>	<u>165,445,205</u>	<u>170,540,233</u>	<u>173,224,683</u>	
Junior lien bonds	<u>2,700,808</u>	<u>2,521,249</u>	<u>2,009,658</u>	<u>1,785,328</u>	
Total all bonds	<u>\$ 169,183,461</u>	<u>\$ 167,966,454</u>	<u>\$ 172,549,891</u>	<u>\$ 175,010,011</u>	
Rate covenant debt service coverage					
Senior lien bonds	1.94	2.13	2.07	2.03	
Senior and second lien bonds	1.42	1.54	1.55	1.57	
All bonds, including SRF junior lien	1.40	1.51	1.53	1.56	

[1] GLWA started operations on January 1, 2016. Includes 6 months under operations of DWSD and 6 months under the operations of GLWA under the Master Bond Ordinances in effect during the respective time periods.

[2] Computed consistent with rate covenant basis for rate determination purposes.

[3] Prior years restated for consistency with current year calculation. Debt Service Coverage amounts presented may differ slightly from last year's Comprehensive Annual Financial Report.

[4] GLWA introduced the rate covenant basis for debt service coverage in the 2020 Water and Sewer Official Statements. Historic calculations were computed as part of that official statement development and carried forward here.

GREAT LAKES WATER AUTHORITY

DEBT SERVICE COVERAGE HISTORY - SEWAGE DISPOSAL FUND

As of June 30, 2020

	2020	2019 [3]	2018 [3]	2017 [3]	2016 [1] & [3]
GAAP Basis					
Pledged revenue	<u>\$ 318,792,554</u>	<u>\$ 306,491,042</u>	<u>\$ 311,232,453</u>	<u>\$ 350,855,928</u>	<u>\$ 328,801,416</u>
Principal and interest funding requirement [2]:					
Senior and second lien bonds					
Senior lien bonds	\$ 147,310,565	\$ 145,795,507	\$ 141,718,836	\$ 140,854,010	\$ 140,191,016
Second lien bonds	<u>45,878,850</u>	<u>43,922,600</u>	<u>43,990,100</u>	<u>47,918,639</u>	<u>48,944,924</u>
Total senior and second lien bonds	<u>193,189,415</u>	<u>189,718,107</u>	<u>185,708,936</u>	<u>188,772,649</u>	<u>189,135,940</u>
Junior lien bonds	<u>52,593,843</u>	<u>49,454,156</u>	<u>46,571,896</u>	<u>45,782,165</u>	<u>39,434,631</u>
Total all bonds	<u>\$ 245,783,258</u>	<u>\$ 239,172,263</u>	<u>\$ 232,280,832</u>	<u>\$ 234,554,814</u>	<u>\$ 228,570,571</u>
GAAP basis debt service coverage					
Senior lien bonds	2.16	2.10	2.20	2.49	2.35
Senior and second lien bonds	1.65	1.62	1.68	1.86	1.74
All bonds, including SRF junior lien	1.30	1.28	1.34	1.50	1.44
Rate Covenant Basis [4]					
Pledged revenue	<u>\$ 316,606,247</u>	<u>\$ 307,746,262</u>	<u>\$ 289,772,284</u>	<u>\$ 284,557,882</u>	
Principal and interest funding requirement [2]:					
Senior and second lien bonds					
Senior lien bonds	\$ 147,310,565	\$ 145,795,507	\$ 141,718,836	\$ 140,854,010	
Second lien bonds	<u>45,878,850</u>	<u>43,922,600</u>	<u>43,990,100</u>	<u>47,918,639</u>	
Total senior and second lien bonds	<u>193,189,415</u>	<u>189,718,107</u>	<u>185,708,936</u>	<u>188,772,649</u>	
Junior lien bonds	<u>52,593,843</u>	<u>49,454,156</u>	<u>46,571,896</u>	<u>45,782,165</u>	
Total all bonds	<u>\$ 245,783,258</u>	<u>\$ 239,172,263</u>	<u>\$ 232,280,832</u>	<u>\$ 234,554,814</u>	
Rate covenant debt service coverage					
Senior lien bonds	2.15	2.11	2.04	2.02	
Senior and second lien bonds	1.64	1.62	1.56	1.51	
All bonds, including SRF junior lien	1.29	1.29	1.25	1.21	

[1] GLWA started operations on January 1, 2016. Includes 6 months under operations of DWSD and 6 months under the operations of GLWA under the Master Bond Ordinances in effect during the respective time periods.

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[3] Prior years restated for consistency with current year calculation. Debt Service Coverage amounts presented may differ slightly from last year's Comprehensive Annual Financial Report.

[4] GLWA introduced the rate covenant basis for debt service coverage in the 2020 Water and Sewer Official Statements. Historic calculations were computed as part of that official statement development and carried forward here.