

Financial Services Audit Committee Communication

Date: December 6, 2021

- To: Great Lakes Water Authority Audit Committee
- From: Steve Hoover, CPA, Financial Reporting Manager
- **Re:** Authorize completion and filing of Audit and Related Draft Financial Reports Pertaining to the Fiscal Year Ended June 30, 2021

Background: Annually, the Great Lakes Water Authority (GLWA) prepares an Annual Comprehensive Financial Report (ACFR) and Schedule of Expenditures of Federal Awards (SEFA) in accordance with financial accounting standards and federal guidelines. Baker Tilly US LLP (Baker Tilly) has been engaged to perform the audit of those reports and issue an opinion as to whether the financial statements are fairly stated in accordance with generally accepted accounting standards.

Analysis: Baker Tilly has completed fieldwork for the FY 2021 GLWA audit. The annual financial reports are in final draft form. Consistent with the Articles of Incorporation (excerpt below) GLWA's practice is to present the audit and financial reports to the Board of Directors seeking authorization to proceed with completing the drafts and filing the completed reports with state, federal, regulatory, and other entities.

ARTICLE XII, Section 2 of the GLWA By-laws states the following:

The Board shall obtain an annual audit of the GLWA's financial statements by an independent certified public accountant and report on the audit and auditing procedures in accordance with state law and generally accepted government auditing standards, as well as federal grant compliance audit requirements. The Board shall furnish at least two copies of the annual audit to each Incorporating Municipality. The audited financial statements shall be posted on the GLWA's website. In addition, the audited financial statements shall be filed with the Michigan Department of Treasury upon approval of the GLWA Board.

The following are attached pertaining to the Fiscal Year Ended June 30, 2021 which will be reviewed with the Board of Directors. It should be noted that GLWA received a "clean" audit

opinion and is in a solid financial position as these reports will demonstrate. A draft Board Letter to authorize filing of financial statements is attached.

The following items are attached for your review.

Attachment 1 – Presentation by Jodi Dobson, Partner, Baker Tilly Attachment 2 – One-Pager Series - FY 2021 Audit & Financial Report Attachment 3 – Draft Annual Comprehensive Financial Report Attachment 4 – Draft Schedule of Expenditures of Federal Awards Attachment 5 – Draft Baker Tilly Reporting & Insights from 2021 Audit Attachment 6 – Draft Management Recommendations Letter

We continue to remain on target for filing with the Michigan Department of Treasury in December 2021 as required. Next steps are as follows:

- December 6, 2021: Audit Committee review and discussion of audit and financial reports
- December 8, 2021: Board Members receive final draft FY 2021 ACFR, SEFA and related Reports with proposed recommendation to file.
- December 10, 2021 (tentative): Issue and file approved statements and reports with required parties

Please note that these lengthy reports are in draft format. Any remaining edits would be grammatical in nature and/or presentation style processing. There is one area that may change which is an annual coordination matter. Debt service coverage is appropriately calculated by adding financial information from GLWA's financial statements and from the Detroit Water and Sewer Department's (DWSD) financial reports. The City of Detroit (including DWSD) is also wrapping up their annual audit and financial reports. Presently the calculation for debt services coverage is from a draft DWSD financial statement as of September 27, 2021. If new or updated information is received from DWSD prior to issuance of GLWA's final report, the debt service coverage will be updated. The Board will be informed if there are any changes and will receive final (not draft) reports on or after December 10, 2021 for GLWA.

Proposed Action: The Audit Committee recommends the GLWA Board of Directors receive and file the reports presented with this communication pertaining to the fiscal year ended June 30, 2021 and authorize staff to proceed with the completion and filing of the final, audited Annual Comprehensive Financial Report and Schedule of Expenditures of Federal Awards before the due dates required for state, federal, and other purposes.



Attachment 1

Presentation by Jodi Dobson, Partner, Baker Tilly

Great Lakes Water Authority Audit Committee Draft Report on Fiscal Year 2021 Financial and Single Audit

Presented by:

Jodi Dobson, CPA, Partner Baker Tilly US, LLP

December 6, 2021



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GLWA Great Lakes Water Authority





Audit presentation topics

- > Audit overview
- > Auditor Communication with Those Charged with Governance
- > Internal control communication
- > Questions



Audit overview

- > Audit was conducted smoothly with no major snags or difficulties.
- > Management and staff were cooperative and readily available.
- > Audit schedule was maintained and communication between management and auditors was good.
- > Remote fieldwork began October 4th and concluded October 22nd.
- > ACFR preparation and review through November.
- > No audit adjusting journal entries were noted.
- > No single audit findings noted.



Audit overview

- > Audit performed in accordance with Generally Accepted Auditing Standards and Government Auditing Standards.
- > Audit is based on assessment of control risk in key business process areas. Below are several key areas of review:
 - -Cash and investments
 - -Revenues and receivables
 - –General disbursements
 - -Payroll
 - –Pension liabilities
 - –Long-term debt
 - –Intangible asset and related obligation

- –Assets under construction and plant in service
- -Leased assets
- -Net position calculations
- -Analytical review of statement of net position and statement of revenues, expenses and changes in net position



Audit overview

- > Audit objective obtain reasonable assurance that financial statements are free from material misstatement.
- > Financial statements receive an *Unmodified Opinion* (clean opinion).
- > Single audit results in *Unmodified Opinion* on compliance and controls over major program.



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Auditor Communication with Those Charged with Governance Significant Findings from the Audit

Area to Be Communicated	Auditor's Response
Auditor's View on Qualitative Aspects of Significant Accounting Policies	> The significant accounting policies used in the preparation of your financial statements are discussed in Note 1 to the financial statements. GASB No. 87, <i>Leases,</i> implemented in FY21
	> Accounting estimates are an integral part of the financial statements prepared by management's knowledge and experience about past and current events and assumptions about future events. We feel that all estimates made by management are in accordance with generally accepted accounting principles.



Area to be Communicated	Auditor's Response		
Significant Difficulties Encountered in Performing the Audit	> We encountered no difficulties in performing our audit.		
Uncorrected Misstatements	> By Professional Auditing Standards, uncorrected misstatements refer to immaterial passed audit adjustments – there were no passed audit adjustments.		



Area to be Communicated	Auditor's Response		
Disagreements with Management	Professional standards define a disagreement with management as a matter, whether or not resolved to our satisfaction, concerning a financial accounting, reporting, or auditing matter that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements were encountered during the course of the audit.		
Other Findings or Issues	> There are no other issues to disclose as part of the audit in connection with these Professional Auditing Standards.		



Area to be Communicated	Auditor's Response
Material Corrected Misstatements	> Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management.
	 There were no adjustments as part of this year's audit.



Area to be Communicated	Auditor's Response
Management Representations	> We have requested certain representations from management that are included in the management representation letter. A copy of this letter is included with our final communication document.



Significant Findings from the Audit (cont.)

Area to Be Communicated	Auditor's Response
Management's Consultations with Other Accountants	> Professional standards require the consulting accountant to discuss any such contacts with the current auditor to determine that the consultant has all the relevant facts. We have been involved in any such consultations with other accountants.



Area to be Communicated	Auditor's Response
Auditor Independence	> We are not aware of any relationships between Baker Tilly US, LLP, and Great Lakes Water Authority that, in our professional judgment, may reasonably be thought to bear on our independence.



Internal control communication

AU-C Section 265

Communicating Internal Control Related Matters Identified in an Audit

Material weaknesses noted in GLWA's internal control:

> None noted

Significant deficiencies noted in GLWA's internal control:

> None noted



Upcoming GASB Standards

GASB Statement Number	Description	Potentially Impacts you	Effective Date
91	Conduit Debt		6/30/23
92	Omnibus 2020	\checkmark	6/30/22
93	Replacement of Interfund Bank Offered Rates		6/30/22
94	Public-Private and Public-Public Partnerships and Availability Payment Arrangements	S	6/30/23
96	Subscription-Based Information Technology Arrangements	ø	6/30/23
97	Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans		6/30/22



Audit summary

Thank You!

We appreciate the work performed by GLWA's accounting staff and management in preparing for and assisting in the audit!

We would be happy to answer any questions regarding the audit.

Attachment 2

One-Pager Series - FY 2021 Audit & Financial Report



FY 2021 Financial Audit Results

Good news! The Great Lakes Water Authority received what is known as a "clean audit" opinion from the independent auditors from Baker Tilly for both the financial audit as well as the audit of federal award programs.

Commitment to Transparency

The audited reports, along with monthly Audit Committee reports, can be found online at the "Financials" page at www.glwater.org

One-Pager Series FY 2021 Audit & Financial Report Preliminary – December 3, 2021

Commitment to Quality – All Year Long

The Financial Services Area supports the organization in a strong commitment to quality in financial reporting on a monthly This means timely, relevant, and basis. reliable information is available for decision makers. As an example, again this year, the preliminary June 30th operating budget expenses reported were the same as the final, *audited* expenses.

Positive Budget Performance

	Water Fund	Sewer Fund	
Actual Revenue to Budget	\$342 million or 99.7%	\$481 million or 100.4%	
reliable forecasts for Member P	forecasting revenue is important for GLWA – as well as provid Partners in our annual charge setting process. Total revenue nd other sources to help lower the burden on the cost of service		
Actual Revenue	\$329 million or 96%	\$469 million or 98%	

Requirements to Budget GLWA operated within the budget to meet operational, debt, and other financial commitments. *The dollars from this positive variance are used to fund the cost of capital outlay and infrastructure* investment and other needs in future years. This also helps to reduce debt as well as relieve pressure on future charges

Solid Credit Metrics

Debt Service Coverage is	Debt Service Coverage	Water		Sewer	
an indication of our ability	for the year ended	GAAP	Rate	GAAP	Rate
to meet debt service	June 30, 2021	GAAP	Covenant	GAAP	Covenant
payments and is an	Senior Lien Bonds	2.00	1.99	2.62	2.92
important ratio for our	Senior and Second Lien Bonds	1.41	1.40	1.76	1.97
creditors to demonstrate	All Bonds, Including SRF Junior Lien	1.38	1.38	1.36	1.51

that GLWA has sufficient cash to repay its bondholders. For GLWA, this is calculated on both the Governmental Accepted Accounting Principles (GAAP) basis as well as the rate covenant basis.

Days Cash on Hand is important because it demonstrates that sufficient funds are available to maintain and operate the systems. It also reduces GLWA's reliance on borrowing which becomes a long-term burden on affordability. Days cash on hand is calculated as unrestricted cash divided by one day of operating expense. At the end of fiscal year 2021, the days cash on hand was 1,043 days for the water system and 664 days for the sewer system.

Attachment 3

Draft Annual Comprehensive Financial Report





Great Lakes Water Authority



Annual Comprehensive Financial Report Fiscal Year Ended June 30, 2021

Dedicated to efficiently delivering the nation's best water and sewer services in partnership with our member partners across Southeast Michigan



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GREAT LAKES WATER AUTHORITY

Southeast Michigan

ANNUAL COMPREHENSIVE FINANCIAL REPORT

Including Independent Auditors' Report

Fiscal Year Ended June 30, 2021

Prepared By:

Great Lakes Water Authority Financial Services Area

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GREAT LAKES WATER AUTHORITY

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INTRODUCTORY SECTION



TRANSMITTAL LETTER

December 8, 2021

Board of Directors Great Lakes Water Authority

Dear Directors,

We are pleased to present the Annual Comprehensive Financial Report (ACFR) for the Great Lakes Water Authority ("GLWA" or "Authority") for the fiscal year which ended June 30, 2021. This is GLWA's fifth full 12-month fiscal year of operations since the Authority's operational effective date of January 1, 2016. Having five full years of financial information allows the GLWA team to demonstrate delivery of the high level of performance that we have pledged.

About this Annual Comprehensive Report

The accompanying financial statements for GLWA were prepared in accordance with U.S. generally accepted accounting principles ("GAAP"), as promulgated by the Governmental Accounting Standards Board ("GASB") and audited by a firm of independent certified public accountants engaged by the GLWA Board of Directors. This is consistent with the GLWA Articles of Incorporation and By-laws which require an annual audit of the Authority's financial statements by independent certified public accountants.

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

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



Baker Tilly US, LLP, Certified Public Accountants, has been retained by GLWA to serve as its independent auditors and has issued an unmodified ("clean") opinion on GLWA's financial statements for the year ended June 30, 2021 with comparative amounts for June 30, 2020.

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

Overview of GLWA

In order to understand key elements of GLWA's financial reporting, it is helpful to understand some of the background that resulted in the launch of GLWA as a regional water and wastewater utility on January 1, 2016.

The creation of GLWA was an outcome of the City of Detroit's Chapter 9 Bankruptcy and monumental collaboration among regional leaders. Working to meet the needs of a sustainable and affordable infrastructure, a memorandum of understanding was agreed upon on September 9, 2014 to form a regional water authority. Subsequently, GLWA was incorporated by the City of Detroit ("City") and the counties of Macomb, Oakland and Wayne on November 26, 2014 pursuant to Act 233, Public Acts of Michigan, 1955, as amended. At the time of GLWA's incorporation, the City, through its Detroit Water and Sewerage Department ("DWSD"), was providing water supply services within and outside of the City through a water supply system and drainage and sewage disposal services within and outside of the City through a sewage disposal system. The purpose of GLWA is to operate, control, and improve the regional assets of both the Water System and Sewage Disposal System owned by the City and which were operated by DWSD. The purpose of DWSD is to be the local service provider for the retail system, which is largely the City of Detroit customer base, including a few retail customers located just outside the City of Detroit.

On June 12, 2015, the City and GLWA executed the Regional Water Supply and Sewage Disposal System Leases (the Regional System Leases), transferring the regional water and sewage disposal facilities from the City to GLWA for an initial term of 40 years. In addition, the City and GLWA entered into a Water and Sewer Services Agreement whereby GLWA provides water and sewer services to the City; the City then supplies these services to Detroit retail customers via the DWSD.

The above agreements required the satisfaction of several conditions before becoming effective. By January 1, 2016 (the operational Effective Date), those conditions were met and GLWA, under the terms of the Leases, became responsible for the assets, all bonded indebtedness, and operations for the regional water and wastewater systems.

GLWA leases the regional water and sewage disposal facilities from the City for an allocation of \$50 million per year to fund capital improvements for the City's retail system and/or debt obligations associated with providing water and sewer service to the City.

The structure that launched GLWA also provided an opportunity to fund a Water Residential Assistance Program ("WRAP") to assist eligible low-income residential households in our member partner communities.



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At GLWA, we define "member partner" as the city, township, village, drainage district, authority or other public body corporate recognized by the state of Michigan that holds a wholesale water or wastewater services contract with GLWA and includes its staff and consultants. Our member partners are actively engaged with GLWA and supported by a facilitated outreach program to ensure open, ongoing, and proactive relationships.

Regional Water System

Our regional water system is one of the largest in the United States, both in terms of water produced and population served. The system currently serves an area of 1,698 square miles with an estimated population of nearly 3.8 million or approximately 38 percent of Michigan's population. The water system has 88 member partners across 112 communities.

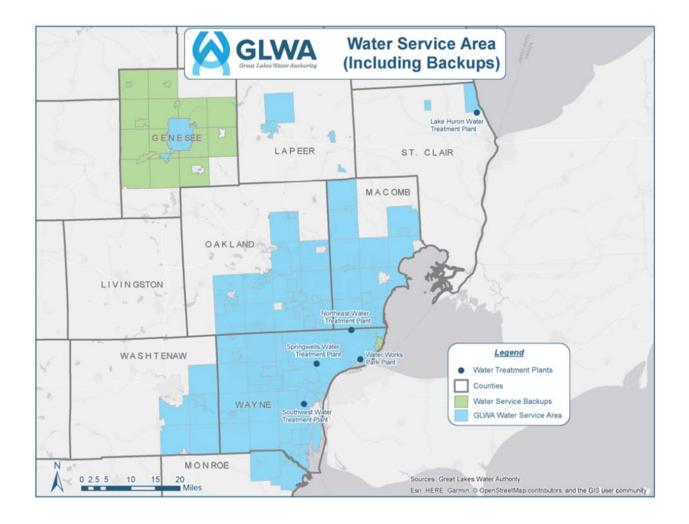
The water supply system consists of three intake facilities, five water treatment plants, 19 booster pumping stations, 32 water storage reservoirs and a conveyance system with over 816 miles of transmission mains. The facilities have the treatment capacity of 1,720 million gallons per day.

The long-term strategy for the water system focuses on reliability, flexibility and cost effectiveness. The 2015 Comprehensive Water Master Plan has identified the ability to reduce the number of water treatment facilities in full operation at GLWA. Initially, for long-term capital expenditure avoidance, the plan has identified the repurposing of the Northeast Water Treatment Plant. To repurpose this facility into a reservoir and pump station, several capital projects, as identified on page 26 of the FY 2022 - 2026 CIP, have been identified and are required to be completed.

Below is the water service area map.



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Regional Wastewater System

Our regional wastewater system is also one of the largest in the United States, both in terms of treatment capacity and population served. The wastewater system currently serves an area of 944 square miles with an estimated population of nearly 2.8 million or approximately 28 percent of Michigan's population. The wastewater system has 19 member partners across 79 communities.

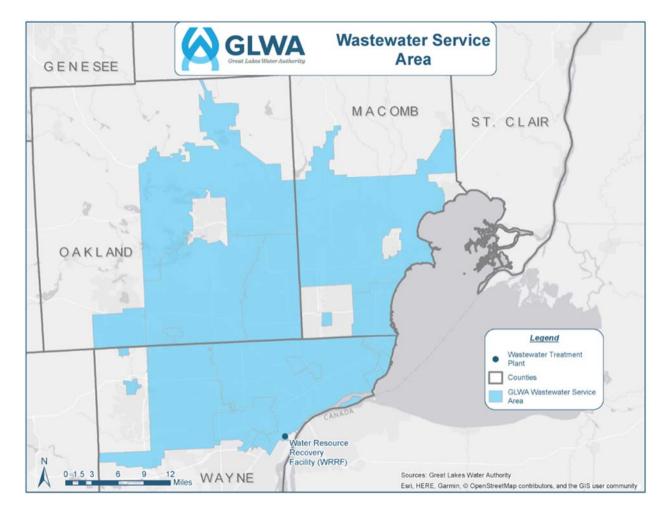
The wastewater system consists of one of the largest single-site water resource recovery facilities in the United States, three major interceptors, nine pump stations, eight Combined Sewer Overflow ("CSO") Control Facilities, including five retention treatment basins and three flow-through type facilities, as well as a conveyance system with 195 miles of trunk sewers and interceptors.

The long-term strategy for the wastewater treatment and sewage disposal system is a focus on regional efficiencies. The 2020 Wastewater Master Plan ("WWMP") was adopted by the Board in September 2020. The WWMP was created with incredible energy, insight, and direction from a broad cross section of our member partners working collaboratively with our team members and consultants and other regional stakeholders. The focus, approach and outcomes of the plan demonstrate the true spirit of the One Water Partnership that GLWA and our member partners are committed to for the benefit of southeast Michigan. The 40-year master plan focuses on water quality, leveraging the entire region's existing infrastructure, maximizing the use of dynamic wet weather





operations, strategic use of green infrastructure, addressing changes in weather patterns and rain event intensities, extensive system modeling including surface water and wastewater treatment, evaluation of resource recovery options and energy reduction opportunities.



Below is the wastewater service area map.

Local Economy

Southeast Michigan's largest employers are comprised mostly of automobile manufacturers and health care systems. There has not been much change in the population of the service area. Due to the COVID-19 pandemic, the annual average unemployment rate increased to 11.7% in 2020 but has trended downward this year and is at 4.8% in June 2021. Per capita income has had a steady increase over the years with a decline in 2020 due to the pandemic.





Budget Process

The GLWA has a rigorous budget process. Annually, a biennial budget and five-year plan are prepared concurrently. This process begins soon after the current fiscal year begins with the operating area budget managers. A preliminary budget is presented to the Audit Committee in December and then to the full Board in January. It is also presented to our member partners for comments during the charge development process. The final proposed biennial budget and five-year financial plan, as well as a five-year capital improvement plan is presented to the Board during a public hearing in February. Once approved, the budget takes effect on July 1st.

The legal level of budgetary control is at the budgeted revenue requirement level to align with the charge setting process. The budget shall not be increased or decreased by revenue requirement category without prior Board authorization. The Board is provided detail schedules which support the totals in the resolution. The Chief Financial Officer may exercise discretion to modify the detail budget line items within each requirement.

The budget is prepared on a modified cash basis and the revenue requirements are determined based upon the cash needed to meet the expenditures as required by the Master Bond Ordinance. A budget to actual comparison is included in the Schedule of Revenue Requirements in the Supplementary Information. A crosswalk is provided in the Supplementary Information that provides a reconcilement between budget basis results in the Schedule of Revenue Requirements to the accrual basis results in the Statement of Revenues, Expenses and Changes in Net Position.

Long-term Financial Planning

The GLWA annually updates a 10-year financial forecast as a roadmap to achieve one of the organizational goals of a solid AA category rating, by meeting or exceeding rating agency criteria. The path to achieve a solid AA credit rating is based upon rebalancing the mix of debt financing and revenue generated capital (also known as pay-as-you go) to fund the capital improvement plan. GLWA has delivered in reducing the annual revenue dollars that are dedicated to debt service with an effective debt refunding program.

While there was no debt refunding activity in the fiscal year ended June 30, 2021, we continue to monitor market conditions. The leadership team in place at DWSD that transitioned to GLWA to stand up the regional water authority, has ushered the systems along in the path toward financial stability through optimizing the debt portfolio. Since 2015, refunding transactions have resulted is over \$1 billion in cashflow savings over the remaining life of the debt at the time of the refunding – with nearly 72% of those savings achieved via transactions completed since the operating effective date of GLWA. These savings have a material impact on GLWA's ability to keep annual charge adjustments at an amount well below the consumer price index. Further, the required level of debt reserves has declined by \$160 million as the structure of the outstanding debt has been optimized. This allows GLWA to more efficiently utilize its resources to increase funding available for capital improvements as well as place less pressure on charge increases.



	GLWA				DWSD (Implementation period of Memorandum of Understanding)						
	FY 2020	FY 2019	FY 2017	Inc	al Since eption ry 1, 2016		iod Ended ember 31, 2015		FY 2015		al FY 2015 to FY 2020
Cash Flow Savings											
Water Fund Sewer Disposal Fund	\$ 103,077 221,040	\$ 30,880 54,049	\$185,424 123,711	\$	319,381 398,800	\$	16,390 21,884	\$	138,696 106,813	\$	474,467 527,497
Total Cash Flow Savings	\$ 324,117	\$ 84,929	\$ 309,135	\$	718,181	\$	38,274	\$	245,509	\$	1,001,964
Economic Gain - Net P	resent Value	Savings									
Water Fund Sewer Disposal Fund	\$ 66,489 122,881	\$24,897 34,519	\$ 120,781 71,155	\$	212,167 228,555	\$	13,003 13,226	\$	56,956 56,589	\$	282,126 298,370
Total Economic Gain	\$ 189,370	\$ 59,416	\$ 191,936	\$	440,722	\$	26,229	\$	113,545	\$	580,496
		Restri	cted Cash Re	equired fo	or Debt Res	serves	(\$000)				
_ <u>J</u>	une 30, 2020	June 30, 2	2019 June	30, 2018	June 30	, 2017	June 30, 2	2016	June 30, 20 ²	5 J	une 30, 2014
Water Fund \$ Sewer Disposal Fund	6 4,361 18,903		,353 \$,206	20,970 64,830		1,547 5,975		541 587	\$		77,920 105,556
Total Debt Reserves	23,264	\$ 68	.559 \$	85,800	\$8	7,522	\$ 136.	128	\$ 135,57	0 \$	183,476

Cumulative Savings from Bond Refunding Transactions (\$000)

Pattern of Delivering What We Promise - This financial achievement demonstrates the strength, stability, and best-in-class performance that the regional stakeholders and leadership team envisioned when the concept of a regional authority emerged in 2014. Further, we believe that our transparency and accessibility in addressing questions from rating agencies, as well as investors, contributed to successful outcomes in uncertain times. The result is rating agency improvements since the operational effective date of the Authority. Moody's Investor Services has increased the ratings 5 notches and both Standard & Poor's and Fitch Ratings have increased the ratings 4 notches.

FY 2021 Key Financial Highlights

Following are the top 10 key financial highlights from FY 2021 for GLWA. A further discussion of FY 2021 results is presented in the Management Discussion & Analysis (MD&A). The information below is for GLWA as a whole. The MD&A provides further analysis of the water and sewer systems individually in addition to GLWA overall.

- 1. Operating revenue of \$815.4 million increased by \$14.5 million, or 1.8 percent, from the prior year.
- 2. Operating expenses of \$579.5 million, represents 71 percent of total operating revenues. Nearly half of the operating expenses, \$277.8 million, or 48 percent, are from depreciation and amortization of assets.
- 3. Actual operating expenses compared to amended budget, resulted in a \$25.3 million positive variance, or 7.99% of amended budget.
- 4. Operating income is \$235.9 million which represents 29 percent of total operating revenue.



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- 5. Nonoperating expenses is \$230.4 million or 28 percent of total operating revenue. By far, the largest nonoperating category is interest expense of \$263.5 million followed by legacy pension expense of \$22.5 million for non-employer financial commitments to the Detroit General Retirement System. These expenses are offset by nonoperating income from interest on loan and obligations receivable of \$43.7 million and earnings on investments of \$7.0 million.
- 6. Net position increased by \$11.4 million or 1.4 percent of total revenue.
- 7. Current assets of \$1.054 billion compared to current liabilities of \$338 million results in a current ratio of 3.1. This demonstrates GLWA's financial strength in being able to meet its current obligations.
- Capital assets of \$14.0 million were purchased while \$211.3 million in assets were constructed during the year ended June 30, 2021. Ending construction in progress of \$396.0 million is net of the constructed asset additions and \$117.7 million in assets placed in service.
- 9. Long-term debt decreased by \$160.3 million from \$5.75 billion to \$5.59 billion. This amount is net of \$211.5 million decrease, which includes principal payments and amortization of premiums and discounts, offset by \$53.2 million in new revolving fund loans and \$2 million in debt forgiveness.
- 10. Days cash, a key measure of liquidity, is solid at 819 days.

The final key financial highlight, debt service coverage, is one which is most appropriately presented for the water and sewer system separately. This is because each system has a separate credit rating. Debt service coverage for both the water and sewage disposal systems is calculated on a GAAP basis and a rate covenant basis. The water system reports GAAP basis debt coverage for senior lien bonds at 2.00 times and all bonds at 1.38 times, and rate covenant basis debt coverage for senior lien bonds at 1.99 times and all bonds at 1.38 times. The sewage disposal system reports GAAP basis debt coverage for senior lien bonds at 2.62 times and all bonds at 1.36 times, and rate covenant basis debt coverage for senior lien bonds at 2.62 times and all bonds at 1.51 times. Detail for all debt types can be found in the Debt Service Coverage schedules in the statistical section.

Unprecedented Events in FY 2021

Both the beginning and end of Fiscal Year 2021 brought unprecedented events. We have navigated through these challenges with our Member Partners – both in direct financial relief, as well as tackling larger policy issues like climate change and infrastructure funding.

COVID-19 Pandemic - The beginning of fiscal year 2021 was still early in the COVID-19 pandemic era. Some Member Partner communities were anticipating cashflow decreases as a result of the pandemic era shut-off moratorium for their utility as well as revenue reductions from decreased sales with many businesses pausing activity. To provide financial relief for GLWA Member Partners during that time, the Board delayed implementation of charge increases from July 1, 2020 until January 1, 2021. This resulted in a revenue reduction of \$6 million for the water fund and \$5.3 million for the sewage disposal fund. GLWA concurrently adjusted its revenue requirements budget to achieve this reduction.





Climate Change - The end of the fiscal year 2021 occurred only days after an unprecedented rain event, spanning June 25 through June 26, which brought more than double the rain to many parts of the service area in these two days than what typically falls during the entire month of June. The rain event caused significant damage to personal and public property. A federal emergency management agency (FEMA) declaration was subsequently approved to provide financial assistance and services to families, businesses, and public entities. This rain event was followed by subsequent weather events, although less severe, in July and August 2021. These events have hastened the interest in many of the goals of the Wastewater Master Plan that have a strong focus on a regional and local system view of wastewater operations. GLWA is committed to working with member partners and other stakeholders to address these long-term and complex issues.

Solid Foundation for Sustainability

GLWA is committed to ensuring the long-term sustainability of the regional water and sewage disposal systems – we do this by recognizing that near-term actions have long-term impacts.

Stable Revenues with Modest Charge Adjustments - GLWA balances steady and controlled Operations and Management budget requests for the short-term, while continuing to focus on increasing cash reserves for capital investment and controlling long-term financial commitments. This provides stability in the cost of supply for our member partners. See Schedule 3 in the Statistical Section which provides the history of charge adjustments. The water and sewer regional system charge structure, developed collaboratively with member partners, supports a high degree of financial stability. The Water System revenues are set using a methodology with a basis of 60 percent fixed monthly charge and 40 percent commodity consumption using a 36-months historical average usage. Proof of that stability gained is that actual wholesale customer revenue for 2021 was 99.6% of budget. The Sewage Disposal System charge revenues are 100 percent fixed monthly billing based on each member partner's share of the annual forecasted revenue requirement. The sewage disposal charges for FY 2022 include a new Sewer SHARES methodology the embraces simplicity and replaces the strength of flow with an appropriate weighting on sanitary volumes. This simplified sewer charge methodology was developed by GLWA team members, advisors, and member partners.

Bondholder Protections - All GLWA and DWSD customer payments are deposited to Bond Trustee Accounts and are disbursed in accordance the Master Bond Ordinance (MBO) flow of funds.

Defined Contribution Benefit Plans - All employee benefit plans are defined contribution which provide shorter term vesting and flexibility for the employee while creating zero risk on unfunded liabilities for GLWA.

Flexible Capital Program - The majority of the GLWA FY 2022 –2026 five-year capital improvement plan ("CIP") is driven by optimizing the system and maintaining reliability. There are no projects in the water system or sewer system CIP which have costs that will be incurred during FY 2022 to 2026 that are driven by mandated permit requirements. The water system CIP calls for \$932.5 million of major capital expenditures over the next five fiscal years (2022-2026) and the sewer system CIP calls for \$738.4 million of capital expenditures over the same time period. The staff from Michigan Department of Environment, Great Lakes, and Energy ("EGLE") regularly engage with GLWA on capital project matters to ensure alignment and open dialog to achieve optimal results.





Payment Assistance Program - The Water Residential Assistance Program (WRAP) set aside \$4.1 million of resources to support customer assistance needs in the region for the year ended June 30, 2021. Services include payment assistance, consumption audit, basic plumbing repairs, conservation education, and limited lead fixture replacement. This means that qualified households can receive payment assistance, as well as take steps to sustainably reduce their bills in the future. Embracing the spirit of continuous improvement, we continually assess and modify the program to identify better performance measures and ensure that eligible residents throughout the service area can readily access the program. In late 2020, a temporary exception allowed those financially impacted by COVID-19 to continue receiving assistance. During fiscal year 2021, a comprehensive review of the program resulted in recommendations adopted by the Board with an effective date of October 1, 2021. These program enhancements provide easier access to the program and expanded services.

Workforce Development - As a significant number of employees in the water service sector prepare for retirement, GLWA is focused on workforce development and succession planning. In partnership with Focus: HOPE, and several local colleges, GLWA previously launched three multiple-year apprenticeship programs. A successful outcome is for apprentices to become GLWA team members. In September 2020, the Apprenticeship Program for Electrical Instrumentation Control Technicians (EICT-I) graduated 20 apprentices from the three-year training program for EICT-I certification, with 19 accepting full-time positions with GLWA.

Most recently, in October 2021, a fourth apprenticeship program in collaboration with Focus: HOPE and its educational partner Macomb Community College, announced a new three-year apprenticeship to train and hire water technicians for GLWA.

Business Inclusion and Diversity Initiative - On November 25, 2020, the GLWA Board of Directors approved an amendment to the procurement policy that establishes the submission of a diversity plan for all procurements over \$1 million to ensure that the vendor community is aligned with GLWA's values for a diverse vendor base. The amendment also provides incentives to business located in our state, services area, and in economically disadvantaged communities among our member partner communities. The launch of the Business Inclusion & Diversity ("BID") program significantly strengthens the Small Business Initiative and the Strategic Alliance Memorandum executed with the United States Small Business Administration ("SBA") in 2018 to meet the needs of the small business community and engagement in GLWA business opportunities. The B.I.D. Program Team, which includes internal GLWA Team Members as well as external consultants, executed a Phase I launch of the program on February 1, 2021. The B.I.D. Program Phase II implementation will begin in FY 2022.

Governance Structure that Supports Collaboration - GLWA's Board of Directors consists of six members. Two members are appointed by the mayor of the City of Detroit, one member is appointed by each chief executive of the three counties (Macomb, Oakland, and Wayne), and one member is appointed by the governor of the state of Michigan. The governor's appointee represents other suburban customer areas outside the tri-county service area, and that appointee must reside within that geographic area.



One Water Partnership - In September 2017, the first One Water Partnership Agreement was signed by GLWA and its member partners. This historic agreement outlines the mutual commitments to working together for the greater good of the region and details the responsibilities of all parties to moving the agreement forward. A critical addition to the agreement is the development of a multijurisdictional, multi-agency approach to infrastructure renewal and investment.

Recognition Among Our Peers

Platinum Award for Utility Excellence - In October 2020, GLWA received the Platinum Award for Utility Excellence from the Association of Metropolitan Water Agencies ("AMWA"). The national award recognizes the exceptional performance of public drinking water utilities where management vision and employee commitment create sustainable utilities producing ample supplies of clean, safe drinking water. To be invited by AMWA to apply for the Platinum Award, a utility must first win the association's Gold Award, which GLWA received in 2017. It must then, over the next three years, exhibit measurable progress in implementing the industry standard 10 Attributes of Effective Utility Management and Keys to Management Success, as well as a distinctive level of management expertise and expanded utility achievement.

Utility of the Future Today – A group of five national professional organizations, led by the Water Environment Federation ("WEF") has recognized GLWA as a Utility of the Future Today for the third consecutive year. The award is given to water systems for transforming operations through innovations and technology. GLWA won in 2020 for its commitment to and innovation in watershed stewardship.

National Association of Clean Water Agencies ("NACWA") Recognitions – GLWA received NACWA's National Environmental Achievement Award ("NEAA") for Public Information & Education in 2020 for the One Water Regional Public Education Campaign and in 2021 for Flushables: Educating and Influencing Public's Behavior. The Authority also received an NEAA award for Workforce Development 2020 for its Apprenticeship Programs. In 2020, GLWA received the NACWA Silver Peak Performance Award, and in 2021 received NACWA's Excellence in Management Gold Award.

Government Finance Officers Association Distinguished Budget Presentation Award – The Government Finance Officers Association of the United States and Canada ("GFOA") presented a Distinguished Budget Presentation Award to Great Lakes Water Authority, Michigan, for its Biennial Budget for the biennium beginning July 1, 2020. This was the Authority's second year receiving the award. To receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as a financial plan, as an operations guide, and as a communications device.

Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting - GFOA has awarded the Certificate of Achievement for Excellence in Financial Reporting to Great Lakes Water Authority for its comprehensive annual financial report for the fiscal year ended June 30, 2020 for the second year in a row. The report has been judged by an impartial panel to meet the high standards of the program, which includes demonstrating a constructive "spirit of full disclosure" to clearly communicate its financial story and motivate potential users and user groups to read the report. The Certificate of Achievement is the highest form of recognition, in the area of governmental accounting and financial reporting, and its attainment represents a significant accomplishment by a government and its management.





COVID-19 Pandemic

Michigan is currently undergoing its fourth surge of the COVID-19 virus and at time of this writing, a substantial portion of new infections within the United States are arising within Michigan. At this same time, Michigan has been successful with promoting vaccinations for its residents and the ultimate duration and impact of the virus continue to remain unclear.

While Michigan's COVID-19 infection rate varies, GLWA has seen success in managing the rate of infection within its team at a low level, even though a substantial majority of GLWA team members are working on site each day. The keys to GLWA's success are proactive efforts and policies requiring social distancing when possible, face coverings within GLWA buildings, daily medical screenings for team members and others entering GLWA facilities, and enhanced facility cleaning. GLWA continues to utilize its emergency operations center, which meets regularly throughout each week, to address evolving impacts associated with the virus. GLWA remains focused on team members' health and safety and maintaining continuity of operations and service levels.

GLWA has been an active proponent of federal and state funding efforts to bridge the economic impact of the COVID-19 on the state and local economies. Including advocacy for the recently approved federal low-income water assistance program. Despite these efforts and positive economic data, uncertainty remains as to the overall duration and effects of a mutating COVID-19 virus on the national economy, Michigan economy and local economies within GLWA's service area. In addition to its own advocacy and consistent with its commitment to meaningful and transparent communication with the member partner communities it serves, GLWA has hosted and participated in a number of forums on available assistance and strategies to mitigate the economic impact of the COVID-19 pandemic.

GLWA continues its research partnership with Michigan State University's (MSU) College of Engineering and the city of Detroit to focus on the use of the wastewater system to help detect viruses in untreated sewage to better understand how wastewater could play an important role in protecting public health during the pandemic. This promising research has been published in the Journal of Environmental Engineering and utilized by other communities and institutions to support and enhance early detection of the virus.

Executive Leadership Transition

On July 27, 2021, Sue F. McCormick, Chief Executive Officer (CEO), announced her retirement. As many know, Sue was the CEO for the GLWA since inception and Director for DWSD prior to that beginning in 2012. Sue's leadership transformed the organization and built the foundation for trust and collaboration that enabled the regional authority discussions. She built an executive leadership team that she allowed to manage their respective areas while holding a high standard of accountability, quality, and commitment to the team. Sue's water sector expertise reaches beyond GLWA to the state, national, and global communities. Although she has moved on, she leaves behind a team that learned from every conversation with her and will carry forward the values on which GLWA was founded.





On August 11, 2021, the Board appointed Suzanne R. Coffey, P.E., Chief Planning Officer, to Interim Chief Executive Officer. Jody Caldwell, Asset Management Director, has been appointed by Suzanne to be the Interim Chief Planning Officer. The entire leadership team is appreciative of the support from the Board and Member Partners in continuing to make progress on ongoing and ever emerging issues.

Acknowledgements

The positive financial results presented in the annual comprehensive financial report is the demonstration of the commitment that each GLWA team member has to accountability for the resources we are given. In addition, a special acknowledgement is in order for the members of the Financial Services Area – who consistently excel in delivering quality, transparent financial reporting all year in addition to this annual comprehensive financial report.

When we say "our" system, it is "our" system that we mutually support and foster in collaboration with our member partners, team members, vendor community, board of directors, other stakeholders and the public at large. Now, more than ever, thank you for your continued engagement.

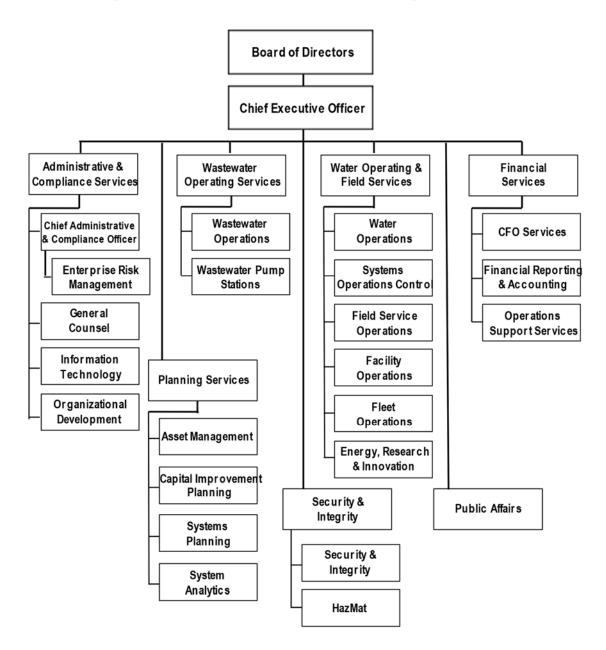
Suzanne R. Coffey, PE Interim Chief Executive Officer Nicolette N. Bateson, CPA Chief Financial Officer & Treasurer







Organizational Line of Reporting Chart





Great Lakes Water Authority Board of Directors as of June 30, 2021

John J. Zech	GLWA Board Chair; Representative for Wayne County
Jaye Quadrozzi	GLWA Board Vice-Chair, Representative for Oakland County
Freman Hendrix	GLWA Board Secretary, Representative for City of Detroit
Brian Baker	GLWA Board Representative for Macomb County
Gary A. Brown	GLWA Board Representative for City of Detroit
Beverly Walker-Griffea, Ph.D	GLWA Board Representative for the State of Michigan

Great Lakes Water Authority Executive Leadership Team as of June 30, 2021

Sue F. McCormick *	Chief Executive Officer
William M. Wolfson	Chief Administrative and Compliance Officer
Nicolette N. Bateson, CPA	Chief Financial Officer/Treasurer - Financial Services
Cheryl D. Porter	Chief Operating Officer – Water and Field Services
Navid Mehram, PE	Chief Operating Officer – Wastewater Operating Services
Suzanne R. Coffey, PE **	Chief Planning Officer
Jeffrey E. Small	Chief Information Officer
Terri Tabor Conerway	Chief Organizational Development Officer
	Chief Security & Integrity Officer
Randal M. Brown	General Counsel
Michelle A. Zdrodowski	Chief Public Affairs Officer

Retired; formally submitted resignation to the Board on July 28, 2021
 ** Appointed Interim Chief Executive Officer on August 11, 2021; Jody Caldwell appointed Interim Chief

DRAFT

Mission Statement

To exceed our customers' expectations by utilizing best practices in the treatment and transmission of water and wastewater, while promoting healthy communities and economic growth.

Planning Officer

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Great Lakes Water Authority Michigan

For its Comprehensive Annual Financial Report For the Fiscal Year Ended

June 30, 2020

Christophen P. Morrill

Executive Director/CEO

FINANCIAL SECTION

INDEPENDENT AUDITORS' REPORT

To the Board of Directors Great Lakes Water Authority

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities, and each major fund of the Great Lakes Water Authority, as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise the Great Lakes Water Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities, and each major fund of the Great Lakes Water Authority as of June 30, 2021 and the respective changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

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

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Great Lakes Water Authority's basic financial statements. The supplementary information as listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated in all material respects, in relation to the basic financial statements as a whole.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Great Lakes Water Authority's basic financial statements. The introductory and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Prior-Year Comparative Information

We have previously audited the Great Lakes Water Authority's 2020 financial statements, and we expressed unmodified audit opinions on the respective financial statements of the business-type activities, and each major fund in our report dated December 18, 2020. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2020, is consistent, in all material respects, with the audited financial statements from which it has been derived.



Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 17, 2021 on our consideration of the Great Lakes Water Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Great Lakes Water Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Great Lakes Water Authority's internal control over financial reporting and compliance.

Madison, Wisconsin December 17, 2021



MANAGEMENT'S DISCUSSION AND ANALYSIS



Management's Discussion and Analysis

June 30, 2021

The management of the Great Lakes Water Authority (GLWA or Authority) presents this discussion and analysis of GLWA's financial position and changes in financial position as of and for the fiscal year ended June 30, 2021. The Management's Discussion and Analysis (MD&A) should be read in conjunction with GLWA's basic financial statements and the related notes to the financial statements in addition to the transmittal letter provided in this report.

GLWA began operations on January 1, 2016. This fiscal year ended June 30, 2021 report represents the fifth full twelve-month report for GLWA. This discussion starts with the GLWA's accounting framework followed by an overview of the financial statements and then the financial analysis. Information in condensed format compares the fiscal year ended June 30, 2021 to the fiscal year ended June 30, 2020 for Total Business-Type activities for the Statement of Net Position. The condensed format of the Statement of Changes in Net Position is presented for the Total Business-Type activities. Financial analysis of this statement is explained by an analysis of the two major funds changes in net position. Comparison analysis is also provided for the fiscal year ended June 30, 2020 to the fiscal year ended June 30, 2019.

Accounting Framework

GLWA leases the regional system assets from the City of Detroit. In order to understand the GLWA's financial activity, it is helpful to revisit key financial reporting categories impacted by the accounting for the start-up of the Authority. The Regional System Leases which transferred the regional water system and sewage disposal system assets and operations to the GLWA are recorded based upon GASB 69, Government Combinations and Disposals of Government Operations. Accounting for the regional system leases under GASB 69 resulted in the following Statement of Net Position categories.

Capital Assets: Based on the terms of the transaction, and GASB 69 requirements, the assets subject to lease are recorded as capital assets by GLWA. The capital assets acquired were recorded at "acquisition value" based upon an inventory valuation performed by a certified appraisal firm as of January 1, 2016. This resulted in an overall increase in capital asset value from the predecessor entity's historical cost. Accordingly, the depreciable lives were reviewed and, in several cases shortened, which has increased annual depreciation expense.

Bonded Indebtedness: The outstanding bonded indebtedness of the predecessor entity (DWSD) was assumed in its entirety by GLWA. GASB 69 also required debt to be recorded at acquisition value.

Net Pension Liability: The net pension liability represents the Regional Systems' share of the frozen, defined benefit City of Detroit GRS pension assigned to DWSD in the City of Detroit's Chapter 9 Bankruptcy Plan of Adjustment. On January 24, 2017, the parties agreed that 70.3 percent of the liability was allocable to the GLWA regional operations and 29.7 percent to DWSD and is the basis of allocation for future pension contributions. That net pension liability is further subdivided between the Water Fund and the Sewage Disposal Fund for each entity.

Obligation Payable: The obligation payable represents the Regional Systems' share of the B and C Note Obligations assigned to DWSD in the City of Detroit's Chapter 9 Bankruptcy Plan of Adjustment. The B and C Note Obligations refers to the debt service on the City of Detroit Financial Recovery Bonds dated December 10, 2014. Those bonds were issued to satisfy claims relating to the City's pension obligation certificates and postemployment healthcare benefits. GLWA's portion of the liability was estimated at 71.42 percent of the total DWSD liability.



Management's Discussion and Analysis

Beginning Net Position: The acquisition value of assets acquired exceeded the liabilities assumed by \$736.5 million in total with \$457.9 million attributable to the Water Fund and \$278.6 million attributable to the Sewage Disposal Fund. In accordance with GASB 69, the opening capital assets were adjusted by an amount to establish a total net position of zero as of January 1, 2016.

Contractual Obligation Receivable: This represents DWSD's allocable portion of the long-term bonded indebtedness assumed by GLWA on January 1, 2016 for local system capital improvements in previous years. This receivable is amortized annually in an agreed upon amount that approximates debt service. If new debt is issued on behalf of DWSD, the receivable is increased.

Regional System Lease Payable: The regional system lease payable is the net present value of the lease payment of \$50 million per year for 40 years payable to the DWSD with \$22.5 million paid to the DWSD local water system and \$27.5 million paid to the DWSD local sewer system based on a 4.17 percent borrowing rate for both systems.

Since GLWA assumed the outstanding bonded indebtedness, retail customer revenues are pledged for payment of outstanding bonded indebtedness assumed by GLWA. For this reason, pursuant to the terms of the Regional System Leases, DWSD is GLWA's agent for retail billing, collections, and enforcement.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the Authority's basic financial statements. The basic financial statements are comprised of the following:

The *statement of net position* presents information on the Authority's assets, deferred outflows of resources, liabilities, and deferred inflows of resources, with the residual reported as net position.

The statement of revenues, expenses and changes in net position presents information showing how the Authority's net position changed during the year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported for some items that will result in cash flows in future fiscal periods.

The *statement of cash flows* provides information about the Authority's cash receipts, cash payments and net changes in cash and cash equivalents resulting from operating, investing and capital and non-capital financing activities for the fiscal year.

The *notes to the financial statements* provide additional information that is essential to a full understanding of the data provided in the basic financial statements.

This report also contains other supplementary information in addition to the basic financial statements themselves. These schedules provide additional financial, budgetary, statistical, trend, and economic information that may be helpful to the readers of these financial statements.



Management's Discussion and Analysis

The Authority presents a combining statement for each fund in the supplementary financial information classified into three categories that align with the Authority's strategic and budgetary focus of managing capital investment for both the Regional Water System and Regional Sewage Disposal System: 1) operations (low capital investment), 2) improvement and extension (moderate capital investment and financial mechanism to lower borrowings and the related cost of capital over the long term), and 3) construction projects (high capital investment). The water and sewage disposal funds together comprise the activity of these three categories of the Authority in total. The separate water and sewage disposal funds are required by the MBO. A separate credit rating is established for each system and services provided to the member partner communities by each system are separate and distinct (although many may geographically overlap).

Financial Analysis

Summaries of the basic financial statements and related commentaries are presented below.

Net Position

Net position is defined by the accounting standards as the residual of all other elements presented in a statement of financial position. It is the difference between (a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources. A net deficit occurs when the liabilities and deferred inflows exceed assets and deferred outflows. Deferred inflows and deferred outflows generally relate to financing activity and GLWA's share of the GRS pension obligation.

In total, GLWA ended June 30,2021 with a \$210.1 million net deficit. This represents the combined net deficit for the water fund of \$97.2 million and \$112.9 million for the sewage disposal fund. The net deficit as of June 30, 2020 was \$221.6 million. This is the combined net deficit of \$96.4 million for the water fund and \$125.2 million for the sewage disposal fund. The improvement in net position for the year ended June 30, 2021 of \$11.4 million was due to a \$12.3 million improvement in the sewer fund offset by a \$0.9 million decrease in the water fund. These amounts are reported in the Statement of Revenues, Expenses, and Changes in Net Position.

There are three general components of a net position or deficit: 1) net investment in capital assets (in its simplest form, capital assets acquired less debt incurred to acquire those assets); 2) restricted (such as legally required bond reserves or net proceeds from bonds restricted for capital spending); and 3) unrestricted. The ending net position (deficit) is the prior year's ending balance plus or minus activity for the year.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

			Net Posti	on (\$000)			
		Fiscal Year		Change 202	1 vs 2020	Change 2020) vs 2019
	2021	2020	2019	Amount	Percent	Amount	Percent
Assets							
Current assets	\$ 1,053,770	\$ 1,071,116	\$ 985,511	\$ (17,346)	-1.6%	\$ 85,604	8.7%
Restricted assets	43,929	87,325	245,164	(43,396)	-49.7%	(157,838)	-64.4%
Capital assets	4,458,165	4,506,699	4,635,542	(48,533)	-1.1%	(128,843)	-2.8%
Other noncurrent							
assets	980,169	1,007,583	957,387	(27,414)	-2.7%	50,196	5.2%
Total assets	6,536,034	6,672,723	6,823,603	(136,689)	-2.0%	(150,881)	-2.2%
Deferred outflows of							
resources	225,074	217,097	273,596	7,977	3.7%	(56,499)	-20.7%
		211,001	210,000	1,011	0.170	(00,100)	20.170
Liabilities							
Current liabilities	338,292	308,601	326,967	29,691	9.6%	(18,365)	-5.6%
Long-term debt	5,469,009	5,627,391	5,786,275	(158,382)	-2.8%	(158,884)	-2.7%
Net pension liability	144,305	132,910	131,981	11,395	8.6%	929	0.7%
Other liabilities	923,254	932,619	944,260	(9,365)	-1.0%	(11,641)	-1.2%
Total liabilities	6,874,860	7,001,521	7,189,483	(126,661)	-1.8%	(187,962)	-2.6%
Deferred inflows of resources	00.000	400.070	100 544	(42,400)	40.00/	4 005	4.00/
resources	96,380	109,876	108,541	(13,496)	-12.3%	1,335	1.2%
Net position							
Net investment in							
capital assets	(302,012)	(351,219)	(228,868)	49,206	-14.0%	(122,351)	53.5%
Restricted for debt	(,)	(,,	()	,		(,,)	
service	114,545	105,283	146,978	9,262	8.8%	(41,695)	-28.4%
Restricted for							
payment assistance							
program	11,043	8,988	8,001	2,055	22.9%	987	12.3%
Unrestricted (deficit)	(33,707)	15,370	(126,936)	(49,078)	-319.3%	142,306	-112.1%
Total net position	\$ (210,132)	\$ (221,578)	\$ (200,825)	\$ 11,445	-5.2%	\$ (20,753)	10.3%

Net investment in capital assets is the largest component of the net position with a deficit balance of \$302 million. The balance on June 30, 2020 was a deficit of \$351.2 million. The improvement for 2021 of \$49.2 million is due to reductions in outstanding debt and increase in capital asset additions being larger than the depreciation expense. The decrease for 2020 of \$122.4 million was due to depreciation expense being larger than the acquisition of assets and repayment of debt. It should be noted that the deficit in the net investment in capital assets is representative of cumulative historical financial impacts carried forward from the predecessor entity. Those primarily related to terminated capital projects which have been subsequently addressed by other projects or approaches to address system needs.

Restricted Net Position for debt service represents amounts that are required by the related MBO or other third-party agreements to be used for the repayment of debt. The total amount restricted at year end was \$114.5 million. The amounts at June 30, 2020 was \$105.3 million. The increase of \$9.3 million from the prior year is due to a change in the amount of certain debt payments due prior to June 30, 2021.



Management's Discussion and Analysis

Restricted Net Position for payment assistance program represents WRAP funds that have not been spent, by the agencies who disburse the funds to those who meet the qualifications for assistance. For payment assistance, a client is in the program for two years. Monies are distributed to the agencies based on cashflow needs. As a result, funds are committed to clients but not disbursed until needed. The total amount restricted at year end was \$11.0 million. This is an increase of \$2.05 million from the prior year total of \$9.0 million. The community action agencies who manage the WRAP funding also received federal and state funding allocations to address client needs as a result of the COVID-19 pandemic. That allowed for WRAP funding to be relied upon less, therefore making it available for subsequent years. In addition, many of the in-home service aspects of WRAP were on hold due to social distancing concerns as a result of the pandemic.

Unrestricted net position (deficit) is generally defined as the net result of the other components of total net position. The unrestricted deficit is \$33.7 million as of June 30, 2021. This is a decrease of \$49.1 from the June 30, 2020 balance of \$15.4 million. Part of this decrease is from the use of unrestricted cash and investments being used to pay for capital expenses in the improvement and extension funds. In FY 2020, the unrestricted account activities contributed to a \$142.3 million increase in unrestricted net position.

Changes in Net Position

The following is a comparative summary of the business-type activities changes in net position for the last three years, followed by a detailed discussion of the significant changes by activity.

				Cha	anges in Net	Postion ((\$000))			
		Fis	scal Year			Change	202	1 vs 2020	Ch	ange 2020) vs 2019
	2021		2020		2019	Amou	nt	Percent	A	mount	Percent
Operating revenues Operating expenses	\$ 815,369 579,460	\$	800,889 593,153	\$	801,079 606,545	\$ 14,4 (13,9	479 693)	1.8% -2.3%	\$	(190) (13,392)	0.0% -2.2%
Operating income Nonoperating	 235,909		207,736		194,534	28,	173	13.6%		13,202	6.8%
expenses	 (230,424)		(234,449)		(216,604)	4,0	025	-1.7%		(17,845)	8.2%
Income (loss) before capital contributions	5,485		(26,713)		(22,070)	32,	198	-120.5%		(4,643)	21.0%
Capital contributions	 5,960		5,960		-		-	0.0%		5,960	100.0%
Change in net position	 11,445		(20,753)		(22,070)	32,	198	-155.2%		1,317	-6.0%
Net position, beginning of year	 (221,578)		(200,825)		(178,755)	(20,	753)	10.3%		(22,070)	12.3%
Net position, end of year	\$ (210,132)	\$	(221,578)	\$	(200,825)	\$ 11,4	445	-5.2%	\$	(20,753)	10.3%



Management's Discussion and Analysis

The year ended June 30, 2021 ended with a positive change in net position of \$11.4 million. This is largely due to a number of material, positive variances as compared with the prior year. Revenues increased \$14.5 million and operating expenses decreased \$13.7 million. Nonoperating expenses decreased \$4 million mostly due to a decrease in interest expense of \$25.5 million. Although most of this positive variance was offset by a decrease of \$12.4 million in earnings on investments and decrease of \$11.8 million in the fair value of investments. This decrease in the fair value of investments is not expected to be realized as the Authority holds most investments to maturity.

Water Fund

					Water Fund	Cha	anges in Ne	Net Position (\$000)					
			Fisca	l Ye	ar			Ch	ange 2021	vs 2020	Ch	ange 2020	vs 2019
		2021	Percentage of Operating Revenue		2020		2019	A	mount	Percent	,	Amount	Percent
Wholesale customer											-		
charges	\$	322,424	93.6%	\$	312,702	\$	311,399	\$	9,722	3.1%	\$	1,303	0.4%
Local system charges		21,926	6.4%		21,296		20,181		630	3.0%		1,114	5.5%
Other revenues		266	0.1%		256		21		10	3.7%		235	1101.0%
Total operating													
revenues		344,615	100.0%		334,254		331,602		10,362	3.1%		2,652	0.8%
Operating expenses		250,476	72.7%		263,283		263,960		(12,806)	-4.9%		(677)	-0.3%
Operating Income		94,139	27.3%		70,971		67,642		23,168	32.6%		3,329	4.9%
Nonoperating expenses		(94,995)	-27.6%		(90,499)		(84,088)		(4,496)	5.0%		(6,410)	7.6%
Change in net position		(856)	-0.2%		(19,528)		(16,446)		18,672	-95.6%		(3,082)	18.7%
Net position, beginning		(96,410)			(76,882)		(60,435)		(19,528)	25.4%		(16,446)	27.2%
Net position, end of year	\$	(97,266)		\$	(96,410)	\$	(76,882)	\$	(856)	0.9%	\$	(19,528)	25.4%

Operating revenues are primarily from wholesale water charges of \$322.4 million (93.6 percent of Water Fund revenues). The current year increase of 3.1 percent lines up with the budgeted wholesale charge adjustment increase of 3.1 percent even though the charge increase was deferred for 6 months. This resulted in approximately half of the increase related to the charge increase and the other half is related to an increase in volume usage that was partially offset with an increase in bad debt charges of \$1.7 million. There was not much change from 2020 to 2019 as the wholesale customer charge adjustment was budgeted at 0.3 percent.

The revenue from the local system charges of \$21.9 million account for 6.4 percent of the total operating revenue. The increase in 2021 compared to 2020 is based on the budgeted increase of 3 percent which was an "across the board" increase that was used for determining charges in FY 2020. The increase in 2020 local system charges from 2019 is due to increases in max day and peak hour demands which was slightly offset by an adjustment to remove volumes and demands associated with a proposed change in account status for certain GLWA sewer facilities that were previous served as retail customers of DWSD. Pursuant to the terms of the WSSA with DWSD, a \$20.7 million credit is applied against allocated water revenue requirements in the charge methodology. This credit replaces a previous ownership benefit that was in place prior to the Effective Date of the Regional System Lease.



Management's Discussion and Analysis

Revenue and charge stability are important goals for GLWA and its member partners. Established via an engaged, collaborative process, the water charge structure is based on the following.

- 1. 40% is based on the average annual usage for each customer based on their 36 prior months of usage ending September 30th each year
- 2. 60% is based on fixed monthly charges

Fiscal year 2021 revenue billed was 99.6 percent of the amended budget meeting the goal of revenue stability and was net of the Karegnondi Water Authority (KWA) credit. Fiscal year 2020 revenue billed was 100.5 percent of the amended budget and was net of the KWA credit.

Operating income after operating expenses (including depreciation and amortization) equals \$94 million or 27.3 percent of operating revenue. Operating expenses are detailed below.

	Water Fund Operating Expenses (\$000)												
			Fisca	l Ye	ar			Cha	ange 2021	l vs 2020	Cha	ange 2020	vs 2019
		2021	Percentage of Operating Revenue		2020	2	2019	Ar	nount	Percent	A	mount	Percent
Operating expenses before depreciation and amortization													
Personnel	\$	43,889	17.5%	\$	43,946	\$	42,086	\$	(57)	-0.1%	\$	1,861	4.4%
Contractual services		40,411	16.1%		46,097		43,083		(5,687)	-12.3%		3,014	7.0%
Utilities		28,828	11.5%		27,720		26,248		1,108	4.0%		1,472	5.6%
Chemicals		6,028	2.4%		5,569		5,089		459	8.2%		481	9.4%
Supplies and other			0 70/		10.001				(0.075)			~~-	0.00/
expenses		9,159	3.7%		12,034		11,797		(2,875)	-23.9%		237	2.0%
Capital adjustment Capital program		-	0.0%		27		-		(27)	-100.0%		27	100.0%
allocation		(2,123)	-0.8%		(2,164)		(2,055)		41	-1.9%		(109)	5.3%
reimbursements		(2,555)	-1.0%		(697)		(6,426)		(1,858)	266.5%		5,729	-89.2%
Total operating expenses before depreciation and amortization		102.000	40.4%		400 500		440.000		(0.005)	0.70/		40 744	40.0%
amortization		123,638	49.4%		132,533		119,822		(8,895)	-6.7%		12,711	10.6%
Depreciation and amortization		126,838	50.6%		130,750		144,138		(3,912)	-3.0%		(13,388)	-9.3%
Total Operating Expenses	\$	250,476	100.0%	\$	263,283	\$	263,960	\$	(12,806)	-4.9%		(677)	-0.3%



Management's Discussion and Analysis

Operating expenses of \$250.4 million represent 72.7 percent of total operating revenue which consists primarily of depreciation and amortization expense and operations and maintenance activities. Depreciation and amortization are the larger category of expense at \$126.8 million or 50.6 percent of operating expense. Given the nature of GLWA's water operations, it is expected that personnel, contractual services, and utilities would represent the higher dollar amount.

Personnel cost variance is mainly due to the change in personnel allocations from both Centralized and Administrative charges. See the Centralized Services and Administrative Services section for a discussion of these variances. This discussion follows the Sewage Disposal Fund discussions.

Contractual services include field services contracts for timely repairs to minimize disruption in service, technology related services for both operational and enterprise data networks, and outsourcing of janitorial, fleet, and other functions. The decrease in contractual services of \$5.7 million from 2021 to 2020 is a result of variances throughout various cost centers. The major variances are detailed below:

- Increase of \$1.2 million in the Field Engineering cost center as a result of a reclass of construction activity for contaminated materials that could not be capitalized. These projects were for the betterment of the system and therefore paid with I&E funds.
- Decrease of \$1.9 million at the Southwest water plant for reduced activity of sludge removal.
- Decrease of \$3.4 million for year-end adjustment to the legal accrual (\$2.0 million) and a decrease of legal services during the fiscal year (\$1.4 million).
- Decrease of \$3.1 million related to a credit received from AT&T for overcharges on telecom services that were not billed at the contract rate.
- Increase of \$1.5 million for transfer of low voltage wiring contract from Information Technology (Administrative Services).

Contractual services increased \$3.0 million from 2020 to 2019 as a result of variances throughout multiple cost centers. The major variances which total \$1.7 million are detailed below:

- Decrease of \$1.9 million in the Field Services cost center as a result of a true up of construction activity reclass of \$1.0 million in 2019 and decreased costs of \$ 0.9 million for the 14 Mile water main condition assessment pilot study. Both of these projects were for the betterment of the system and therefore paid with I&E funds rather than operating expenses.
- Decrease of \$4.5 million at Springwells and Northeast water plants for reduced activity of sludge removal.
- Increase of \$8.1 million in allocated contractual centralized services. See the Centralized Services and Administrative Services section for a discussion of these variances. That discussion follows the Sewage Disposal Fund discussions.

The decrease in the supplies and other expenses of \$2.9 million is due to a decrease in the utilization of the low voltage wiring contract.

The increase of \$1.9 million in intergovernmental reimbursements is mostly due to a decrease in the amount of shared service true up recorded compared to 2020. The \$5.7 million decrease in the 2020 intergovernmental reimbursements relates to shared services in which a \$4 million true up decrease for prior year shared services was recorded. The remaining decrease is due to less services required by DWSD.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

			Water Fund Nonoperating Revenue (Expenses) (\$000)												
			Fiscal	Ye	ear			Ch	ange 2021	vs 2020	Cł	nange 2020	vs 2019		
		2021	Percentage of Operating Revenue		2020		2019	A	Amount	Percent		Amount	Percent		
Earnings on	•	700	0.00/	•	10 715	•		•	(10.070)	04.40/	•	(1.0.10)	0.00/		
Investments Interest on obligations	\$	769	-0.8%	\$	13,745	\$	14,754	\$	(12,976)	-94.4%	\$	(1,010)	-6.8%		
receivable		25,475	-26.8%		22,946		22,921		2,529	11.0%		24	0.1%		
Interest expense Legacy pension income		(128,257)	135.0%		(133,538)		(136,704)		5,280	-4.0%		3,166	-2.3%		
(expense)		(8,075)	8.5%		(7,221)		6,014		(855)	11.8%		(13,235)	-220.1%		
Other		15,094	-15.9%		13,569		8,925		1,525	11.2%		4,644	52.0%		
Total Nonoperating															
Expenses		(94,995)	100.0%		(90,499)	_	(84,088)		(4,496)	5.0%		(6,410)	7.6%		

Net nonoperating expense of \$95 million is primarily related to interest expense of \$128.3 million. The interest expense from debt service is \$106.3 million with the remainder related to the Regional Water System Lease, obligation payable and raw water rights obligation. The largest offset to the nonoperating expense is interest revenue on the obligations receivable of \$25.5 million, which is related to the terms of the Regional Water System Lease.

As a result of the short-term nature of the GLWA portfolio, it is heavily impacted by changes in the Fed Funds interest rate. Earnings started to drop in 2020 as the Federal Reserve cut the Fed Funds interest rate to 0 percent in March 2020. The \$13 million drop in earnings for 2021 reflects the low interest rate environment for investing funds.

The decrease in interest expense in 2021 and 2020 is a result of a reduction in long term debt as well as the savings being realized from bond refunding transactions in 2016, 2018 and 2020.

The legacy pension expense increase in 2021 is mainly related to a decrease in investment earnings on the plan assets to offset the expenses. The expense increase for 2020 is a result of income being realized in 2019 versus an expense. The main reason for the income in 2019 was a change in actuarial assumptions that decreased the total pension liability. Investment earnings also significantly decreased in 2020.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

Sewage Disposal Fund

		S	ewa	ige Disposal	Fund Change	s in	Net Positio	n (\$000)			
		Fisca	ΙYe	ar			hange 202	21 vs 2020	Ch	ange 2020) vs 2019
		Percentage of Operating									
	2021	Revenue		2020	2019		Amount	Percent	ŀ	Amount	Percent
Wholesale customer											
charges	\$ 267,568	56.8%	\$	266,003	\$ 272,772	:	\$ 1,565	0.6%	\$	(6,769)	-2.5%
Local system charges	187,960	39.9%		185,807	181,159		2,152	1.2%		4,648	2.6%
Industrial waste charges	8,005	1.7%		7,855	9,106		150	1.9%		(1,252)	-13.7%
Pollutant surcharges	6,720	1.4%		6,449	5,933		271	4.2%		516	8.7%
Other revenues	501	0.1%		522	506		(21)	-4.0%		16	3.1%
Total operating revenues	470,754	100.0%		466,636	469,477		4,118	0.9%		(2,841)	-0.6%
Operating expenses	 328,983	69.9%		329,870	342,585		(887)	-0.3%		(12,715)	-3.7%
Operating Income	141,770	30.1%		136,765	126,892		5,005	3.7%		9,873	7.8%
Nonoperating expenses	(135,429)	-28.8%		(143,950)	(132,515)		8,521	-5.9%		(11,435)	8.6%
Income (loss) before contributions and special											
item .	6,341	1.3%		(7,185)	(5,624)		13,526	-188.3%		(1,561)	27.8%
Capital contributions	 5,960	1.3%		5,960			-	0.0%		5,960	100.0%
Change in net position	12,301	2.6%		(1,225)	(5,624)		13,526	-1104.2%		4,399	-78.2%
Net position, beginning	 (125,168)			(123,943)	(118,319)		(1,225)	1.0%		(5,624)	4.8%
Net position, end of year	\$ (112,867)		\$	(125,168)	\$ (123,943)		\$ 12,301	-9.8%	\$	(1,225)	1.0%

Operating revenues are primarily from wholesale sewer charges of \$267.6 million (56.8 percent of Sewage Disposal Fund revenues). The increase in 2021 is related to the charge increase of 1.7 percent for wholesale customers that was delayed six months resulting an increase of 0.85 percent. There was also an increase in bad debt charges of approximately \$265,000. The decrease from 2020 to 2019 in the wholesale customer charges is a result of a credit to a member on their wholesale charges of \$5.9 million for a capital contribution as shown on the capital contribution line item. The decrease also relates to an increase in bad debt charges of approximately \$518,000.

The revenue from local system charges of \$188 million account for 39.9 percent of total operating revenues. The variances in the local system charges line up with half of the budgeted increases of 2.3 percent for 2021 as the charges were delayed six months due to the pandemic. For 2020, the 2.5 percent increase matches the budget increase in charges. Pursuant to the terms of the WSSA with DWSD, a \$5.516 million credit is applied against sewer charges in the charge methodology. This credit replaces a previous contractual arrangement that was in place prior to the Effective Date of the Regional System.

Industrial waste charges and pollutant surcharges represent 3.1 percent of operating revenue which are charged to non-residential users. The decrease in the industrial waste charges for 2020 are due to decreases made in the charges.

Management's Discussion and Analysis

Wholesale contract charges are based on a "share" percentage of the annual revenue requirement billed one-twelfth each month. The shares are established based upon historical flows and are formally revisited every three years. The result is no revenue shortfall or overestimation.

Operating income after operating expenses (including depreciation and amortization) equals \$141.8 million or 30.1 percent of operating revenue. Operating expenses are detailed below.

		Sewage Disposal Fund Operating Expenses (\$000)										
		Fisca	l Ye	ar			Ch	ange 202	1 vs 2020	Ch	ange 2020) vs 2019
	2021	Percentage of Operating Revenue		2020	2	2019	Ar	nount	Percent		Amount	Percent
Operating expenses before depreciation												
Personnel	\$ 63,056	19.2%	\$	60,320	\$	56,503	\$	2,735	4.5%	\$	3,817	6.8%
Contractual services	62,913	19.1%		63,351		58,661		(438)	-0.7%		4,690	8.0%
Utilities	23,921	7.3%		23,433		25,148		488	2.1%		(1,715)	-6.8%
Chemicals Supplies and other	7,954	2.4%		8,672		8,187		(718)	-8.3%		485	5.9%
expenses	21,938	6.7%		23,393		25,324		(1,455)	-6.2%		(1,931)	-7.6%
Capital adjustment Capital program	-	0.0%		-		2,258		-	0.0%		(2,258)	-100.0%
allocation Intergovernmental	(1,069)	-0.3%		(1,183)		(1,326)		115	-9.7%		142	-10.7%
reimbursements	 (612)	-0.2%		(1,037)		(714)		425	-41.0%		(323)	45.3%
Total operating expenses before		= 1 10/							o =0/			4 = 0/
depreciation	178,101	54.1%		176,949		174,041		1,152	0.7%		2,909	1.7%
Depreciation and amortization	 150,882	45.9%		152,921		168,544		(2,039)	-1.3%		(15,623)	-9.3%
Total Operating Expenses	\$ 328,983	100.0%	\$	329,870	\$	342,585	\$	(887)	-0.3%	\$	(12,715)	-3.7%

Operating expenses of \$328.9 million represent 69.9 percent of total operating revenue which consists primarily of depreciation and amortization expense and operations and maintenance activities. Depreciation and amortization is the larger category of expense at \$150.9 million or 45.9 percent of operating expense. Given the nature of GLWA's wastewater operations, it is expected that personnel, contractual services, and utilities would represent the higher dollar amount.

Personnel cost increases in 2021 and 2020 are mainly due to increase in the allocation from both Centralized and Administrative charges. See the Centralized Services and Administrative Services section for a discussion of these variances. This discussion follows the Sewage Disposal Fund discussions.



Management's Discussion and Analysis

Contractual services include operation and management of the Biosolids Dryer Facility (BDF), timely repairs for the Water Resources Recovery Facility (WRRF), staff augmentation for operations, technology related services for both operational and enterprise data networks, and outsourcing of janitorial, fleet, and other functions. Contractual services decreased \$.4 million in 2021 which is mainly due to the following:

- Decrease of \$2.0 million due to various contract reductions in the following cost centers: Wastewater Operations, Wastewater Primary Process, Wastewater Secondary Process, Combined Sewer Overflow.
- Increase of \$1.7 million in the year-end claims & judgements accrual.

Contractual services increased \$4.7 million in 2020 which is due to the following:

- Increase of \$2.2 million for CSO condition assessment beginning in 2020.
- Decrease of \$1.9 million due to various contract reductions in the following cost centers: Chief Operating Officer Wastewater, Wastewater Operations, Wastewater Process Control and Baby Creek Combined Sewer Overflow.
- Increase of \$4.4 million in allocated contractual centralized services. See the Centralized Services and Administrative Services section for a discussion of these variances. This discussion follows the Sewage Disposal Fund discussions.

The supplies and other expenses decreased of \$1.5 million in 2021 mainly due to the following:

- Increase of \$0.9 million due to increase in repair work at the following cost centers: Wastewater Primary Process and Wastewater Incineration Process.
- Decrease of \$2.5 million in allocated supplies and other centralized services. See the Centralized Services and Administrative Service section for a discussion of these variances. This discussion follows the Sewage Disposal Funds discussions.

The supplies and other expenses decrease of \$1.9 million in 2020 is mainly due to inventory reserve adjustments.

The Capital adjustment in 2019 relates to projects, generally design phase engineering costs, which did not move into the construction phase and were expensed to operations.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

		Se	ewer Fund Nonc	perating Rever	nue (Expenses) (\$000)		
		Fiscal	Year		Change 202	1 vs 2020	Change 202	0 vs 2019
	2021	Percentage of Operating Revenue	2020	2019	Amount	Percent	Amount	Percent
Earnings on Investments Interest on loan and	\$ 491	-0.4%	\$ 11,672	\$ 11,763	\$ (11,181)	-95.8%	\$ (91)	-0.8%
obligations receivable	18,248	-13.5%	19,489	18,856	(1,241)	-6.4%	633	3.4%
Interest expense Legacy pension income	(135,228) 99.9%	(155,410)	(159,893)	20,183	-13.0%	4,483	-2.8%
(expense) Sewer lookback-MOU	(14,453) 10.7%	(12,923)	10,764	(1,530)	11.8%	(23,687)	-220.1%
adjustment	-	0.0%	-	(6,527)	-	0.0%	6,527	100.0%
Other Total Nonoperating	(4,487	<u>)</u> 3.3%	(6,778)	(7,478)	2,291	-33.8%	700	-9.4%
Expenses	(135,429) 100.0%	(143,950)	(132,515)	8,521	-5.9%	(11,435)	8.6%

Net nonoperating expense of \$135.4 million is primarily related to \$135.2 million of interest expense. Interest expense from debt service is \$112.6 million with the remainder related to the Regional Sewage Disposal Lease, obligation payable and lease for the right to use asset. The largest offset to the expense is interest revenue of \$18.2 million on the loan and obligations receivable, which is related to the terms of the Regional Sewage Disposal Lease.

As a result of the short-term nature of the GLWA portfolio, it is heavily impacted by changes in the Fed Funds interest rate. Earnings started to drop in 2020 as the Federal Reserve cut the Fed Funds interest rate to 0 percent in March 2020. The \$11.1 million drop in earnings for 2021 reflects the low interest rate environment for investing funds.

Interest earnings on loan and obligation receivable have decreased for 2021 as the principal balances are being paid down. The earnings increased in 2020 due to increases in the obligation receivable related to additional new money bonds and SRF loans and the loan receivable from DWSD due to budget shortfalls.

The decrease in interest expense in 2021 and 20209 is a result of a reduction in long term debt as well as the savings being realized from bond refunding transactions in 2016, 2018 and 2020.

The legacy pension expense increase in 2021 is mainly related to a decrease in investment earnings on the plan assets to offset the expenses. The expense increase for 2020 is a result of income being realized in 2019 versus an expense. The main reason for the income in 2019 was a change in actuarial assumptions that decreased the total pension liability. Investment earnings also significantly decreased in 2020.

The sewer lookback-MOU adjustment in 2019 was a one-time charge which was part of the 2018 MOU with DWSD.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

Centralized Services and Administrative Services

The following table summarizes the activity for centralized services and administrative services.

				Centraliz	ed and Adn	ninistrative Se	rvices (\$000)			
					Change 202	21 vs 2020			Change 20	20 vs 2019	
		Fiscal Year				Variance /	Allocation			Variance /	Allocation
	2021	2020	2019	Amount	Percent	Water	Sewer	Amount	Percent	Water	Sewer
Centralized Services	¢ 00.040	¢ 00 700	¢ 04.005	4 500	5.00/	¢ (700)	¢ 0.000	0.000		¢ 4 505	¢ 0.040
Personnel	\$ 30,318	• • • • •	\$ 24,965	1,520	5.3%	\$ (766)	\$ 2,286	3,833	15.4%	\$ 1,585	\$ 2,248
Contractual services	48,802	/	47,550	(11,198)	-18.7%	(8,228)	(2,969)	12,450	26.2%	8,094	4,356
Utilities	136	66	168	70	106.3%	36	34	(103)	-60.9%	(52)	(50)
Supplies and other expenses	8,873	13,836	12,505	(4,962)	-35.9%	(2,484)	(2,479)	1,330	10.6%	754	577
Total Centralized Services	\$ 88,129	\$ 102,699	\$ 85,188	\$ (14,570)		\$ (11,442)	\$ (3,128)	\$ 17,511	20.6%	\$ 10,380	\$ 7,130
Administrative Services	5										
Personnel	\$ 17,823	\$ 17,629	\$ 13,746	\$ 194	1.1%	\$97	\$ 97	\$ 3,883	28.2%	\$ 1,942	\$ 1,942
Contractual services	6,524	10,126	10,134	(3,602)	-35.6%	(1,801)	(1,801)	(8)	-0.1%	(4)	(4)
Utilities	24	28	60	(4)	-14.6%	(2)	(2)	(31)	-52.6%	(16)	(16)
Supplies and other expenses	846	1,173	1,180	(327)	-27.9%	(223)	(104)	(7)	-0.6%	(3)	(3)
Total Administrative Services	\$ 25,217	\$ 28,956	\$ 25,119	\$ (3,739)		\$ (1,929)	\$ (1,810)	\$ 3,837	15.3%	\$ 1,918	\$ 1,918

Centralized services personnel costs increased \$1.5 million in 2021. This increase is mostly driven by the change in staffing in 2020, which occurred throughout 2020, with more increases in the latter half of 2020, therefore a full year increase in 2021 and a partial year increase in 2020. In 2020 centralized services personnel cost increased \$3.8 million and administrative services personnel cost increased \$3.9 million. There was an increase in staff of 7 employees in the centralized services cost center, four of these were in the HazMat group. The HazMat group is charged 100% to the sewer fund based on the nature of their services which is why more of the personnel increase is allocated to sewer. The administrative services cost center had an increase of 5 employees in 2020. Overall employee benefit costs also increased in 2020.

Centralized contractual services decreased \$11.2 million in 2021. The major variances which total \$10.7 million are detailed below:

- Decrease of \$1.6 million related to COVID-19 deep cleaning performed at various GLWA facilities.
- Decrease of \$1.6 million in Fleet Operations for the cancellation of the fleet management shared services agreement (OPS-001) with DWSD. GLWA assumed the fleet management responsibility beginning July 2020 (FY 2021),
- Decrease of \$3.1 million related to a credit received from AT&T for overcharges on telecom services that were not billed at the contract rate.
- Decrease of \$1.4 million in Systems Planning upon completion of the Wastewater Master Plan in FY 2020.
- Decrease of \$3.0 million in Capital Improvement Planning with the operations & maintenance work wrapping up AECOM Contract (CS-272). The work is now shifting to Capital.



Management's Discussion and Analysis

Centralized contractual services increased \$12.4 million in 2020. The major variances which total \$10.2 million are detailed below:

- Increase of \$6.7 million in Capital Improvement Planning due to a full year of activity from AECOM.
- Increase of \$5.0 million is due to an AT&T contract renewal credit (\$1.3 million) received in FY 2019 and increase in billing rate for AT&T AVPN services.
- Increase of \$1.7 million related to COVID-19 deep cleaning performed at various GLWA facilities.
- Increase of \$1.5 million for increase in legal services.
- Decrease of \$2.1 million in Systems Planning upon completion of the Wastewater Master Plan in FY 2020.
- Decrease of \$1.3 million in Systems Analytics with more engineering work performed in house.
- Decrease of \$1.3 million resulting from reduced IT needs related to our human resources information services system.

Administrative contractual services decreased \$3.6 million in 2021. The majority of this decrease was due to a decrease of the claims and adjustment accrual of \$2.1 million and a decrease of legal services during the fiscal year of \$1.4 million.

Capital Assets and Debt Administration

GLWA's investment in capital assets is \$4.5 billion (net of accumulated depreciation) with \$1.9 billion assigned to the Water Fund and \$2.6 billion assigned to the Sewage Disposal Fund. The investment in capital assets includes land, buildings, plants, transmission lines, vehicles, machinery and equipment, raw water rights and right to use assets. Total net capital assets decreased in 2020 and increased in 2021. The net decrease is primarily attributable to depreciation in excess of current year additions for 2020 and current year additions in excess of depreciation for 2021. See Note 10 to the financial statements for more information on capital assets. The Authority implemented GASB 89 during FY 2018 and no longer capitalizes interest expense.

				(Capital Asse	ts, N	et (\$000)				
		Fis	cal Year			Ch	ange 2021	vs 2020	C	hange 2020	vs 2019
	2021		2020		2019	A	mount	Percent		Amount	Percent
									•		
Land	\$ 62,311	\$	61,801	\$	62,814	\$	509	0.8%	\$	(1,012)	-1.6%
Easements	355,202		354,844		354,844		358	0.1%		-	0.0%
Construction in progress	395,973		303,220		368,748		92,753	30.6%		(65,527)	-17.8%
Site improvements	58,815		69,475		60,998		(10,660)	-15.3%		8,477	13.9%
Buildings and structures	1,322,619		1,378,065		1,410,654		(55,446)	-4.0%		(32,588)	-2.3%
Infrastructure	1,002,945		1,040,603		1,055,039		(37,658)	-3.6%		(14,436)	-1.4%
Machinery and equipment	1,144,125		1,186,649		1,215,919		(42,524)	-3.6%		(29,270)	-2.4%
Vehicles	7,077		3,477		2,000		3,600	103.5%		1,478	73.9%
Leasehold improvements	10,444		10,777		3,175		(333)	-3.1%		7,602	239.5%
Intangible assets	 98,653		97,786		101,353		867	0.9%		(3,567)	-3.5%
Total capital assets (net of depreciation and											
amortization)	\$ 4,458,165	\$ 4	4,506,699	\$	4,635,542	\$	(48,533)	-1.1%	\$	(128,843)	-2.8%

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

Water Fund

There are ten major categories used for classification of capital assets for financial reporting purposes.

		Water Fund Capital Assets (\$000)										
	Fiscal Year				Change 2021 vs 2020 Change 2020 vs 2					vs 2019		
		2021	2020		2019		Amount		Percent		Amount	Percent
Land	\$	34,168	\$	34,167	\$	34,167	\$	1	0.0%	\$	-	0.0%
Easements		258,990		258,632		258,632		358	0.1%		-	0.0%
Construction in progress		204,853		126,198		175,031		78,656	62.3%		(48,834)	-27.9%
Site improvements		84,054		83,676		75,141		378	0.5%		8,535	11.4%
Buildings and structures		592,347		584,306		570,825		8,041	1.4%		13,481	2.4%
Infrastructure		668,117		654,216		625,948		13,901	2.1%		28,268	4.5%
Machinery and equipment		714,473		681,906		614,917		32,568	4.8%		66,989	10.9%
Vehicles		5,070		3,217		2,348		1,852	57.6%		869	37.0%
Leasehold improvements		8,407		8,062		499		345	4.3%		7,562	1514.0%
Intangible assets		107,000		107,000		107,000		-	0.0%		-	0.0%
Accumulated depreciation												
and amortization		(760,694)		(634,467)		(504,560)	(126,227)	19.9%		(129,907)	25.7%
Total water fund capital assets (net of depreciation and												
amortization)	\$	1,916,784	\$	1,906,912	\$	1,959,948	\$	9,872	0.5%	\$	(53,036)	-2.7%

Water Fund additions in 2021 and 2020 were mainly due to transfers out of construction in progress to the applicable asset category. Total additions in FY 2021 to construction in progress was \$129.8 million and transfers out of \$51.2 million. The total additions in FY 2020 to the construction in progress were \$76.3 million with \$125.1 million transferred to capital assets. The table below summarizes major projects for the last two years. Comprehensive project plan details can be found within Capital Improvement Plan documents available at https://www.glwater.org/cip/.



Management's Discussion and Analysis

		Water	· Fund (mill	ions)				
		Expected	Project	Exper	nditures	Placed in	n Service	
Project		Completion	Plan					CIP at
Number	Description	Date	Estimate	FY 2020	FY 2021	FY 2020	FY 2021	6/30/2021
116002	Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements	FY 2026	\$ 94.9	\$ 8.3	\$ 12.1	\$-	\$ 4.7	\$ 25.9
122003	Water Works Park to Northeast							
114011	Transmission Main Springwells Water Treatment Plant Steam, Condensate Return, and	FY 2028	143.2	2.6	16.1	-	-	21.3
	Compressed Air Piping Improvements	FY 2023	25.5	0.8	8.4	-	-	18.5
	Wick Road Water Transmission Main Springwells Water Treatment Plant, Low-Lift and High-Lift Pumping Station Improvements	FY 2022 FY 2031	22.4	5.5 3.4	11.2 7.4	-	-	17.1 12.9
170801	Reservoir Inspection, Design and Construction Project at Imlay Station, Lake Huron Water Treatment Plant, Springwells Water Treatment Plant, And Southwest Water Treatment Plant	FY 2023	15.1	2.2	8.8	-	-	12.9
111002	Lake Huron Water Treatment Plant, Miscellaneous Mechanical HVAC Improvements	FY 2021	8.7	1.7	<u>_</u>	_	8.6	_
114003	Water Production Flow Metering Improvements at Northeast, Southwest and Springwells Water Treatment Plants		8.2	1.7	_	_	8.2	-
122011	Park-Merriman Road Water	112021	0.2	1.0			0.2	
114001	Transmission Main Springwells Water Treatment Plant,	FY 2022	9.6	4.2	2.7	-	6.4	0.3
122001	1958 Filter Rehabilitation and Auxiliary Facilities Improvements Parallel 42-Inch Main in 24 Mile Road	FY 2020	80.8	3.1	-	77.0	-	-
122001	from Rochester Station to Romeo Plank Road	FY 2020	33.2	_	_	33.2	_	-
115004	Water Works Park Water Treatment Plant Chlorine System Upgrade	FY 2020	6.9	0.3	(7.0	-	-
	Other projects			42.3	63.1	7.9	23.3	97.4
	Total			\$ 76.3	\$ 129.8	\$ 125.1	\$ 51.2	\$ 204.9

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

Sewage Disposal Fund

There are ten major categories used for classification of capital assets for financial reporting purposes.

		Sewage Disposal Fund Capital Assets (\$000)										
	Fiscal Year					Ch	ange 2021	vs 2020	Cł	Change 2020 vs 2019		
	2021		2020			2019		mount	Percent	Amount		Percent
						•						•
Land	\$	28,143	\$	27,635	\$	28,647	\$	508	1.8%	\$	(1,012)	-3.5%
Easements		96,211		96,211		96,211		-	0.0%		-	0.0%
Construction in progress		191,120		177,023		193,717		14,097	8.0%		(16,694)	-8.6%
Site improvements		51,661		51,283		39,621		378	0.7%		11,662	29.4%
Buildings and structures		1,156,500		1,156,169		1,138,611		331	0.0%		17,558	1.5%
Infrastructure		619,819		619,049		609,684		770	0.1%		9,366	1.5%
Machinery and equipment		1,311,291		1,242,297		1,188,043		68,994	5.6%		54,255	4.6%
Vehicles		5,954		3,622		2,590		2,332	64.4%		1,032	39.9%
Leasehold improvements		3,137		3,066		2,801		71	2.3%		265	9.5%
Intangible assets		4,544		-		-		4,544	100.0%		-	0.0%
Accumulated depreciation												
and amortization		(926,999)		(776,568)		(624,330)		(150,431)	19.4%		(152,238)	24.4%
Total sewage disposal												
fund capital assets (net of depreciation and												
amortization)	\$	2,541,381	\$	2,599,786	\$	2,675,593	\$	(58,406)	-2.2%	\$	(75,807)	-2.8%

Sewage Disposal Fund additions in 2021 and 2020 were mainly due to transfers out of construction in progress to the applicable asset category. Total additions for FY 2021 to construction in progress was \$81.5 million and transfers out of \$67.4 million. The total additions for FY 2020 to the construction in progress were \$73.8 million with \$90.5 million transferred to capital assets. Much of the activity for the year is related to the water resource recovery facility (WRRF) The table below summarizes major projects for the last two years. Comprehensive project plan details can be found within Capital Improvement Plan documents available at https://www.glwater.org/cip/.



Management's Discussion and Analysis

	Sewage Disposal Fund (millions)										
		Expected	Project	Expe	nditures	Placed in	n Service				
Project		Completion	Plan					CIP at			
Number	Description	Date	Estimate	FY 2020	FY 2021	FY 2020	FY 2021	6/30/2021			
222002	Detroit River Interceptor (DRI)										
	Evaluation and Rehabilitation	FY 2027	\$ 72.8	\$ 9.5	\$ 16.9	\$-	\$-	\$ 37.1			
232001	Fairview Pumping Station - Replace										
	Four Sanitary Pumps	FY 2022	40.1	1.7	16.1	-	-	30.4			
211004	WRRF PS #1 Rack & Grit and MPI	514 0004	00.0		0.0			07.0			
040007	Sampling Station 1 Improvements	FY 2021	23.3	1.1	0.3	-	-	27.9			
213007	WRRF Modification to Incinerator Sludge Feed Systems at Complex -II	FY 2022	22.2	6.1	3.2			20.1			
214001	WRRF Relocation of Industrial Waste	FT 2022	22.2	0.1	3.2	-	-	20.1			
214001	Control Division and Analytical										
	Laboratory Operations	FY 2021	12.7	8.3	3.6	-	-	11.9			
260201	CON-149, Emergency Sewer										
	Rehabilitation	FY 2022	32.3	5.5	9.6	9.4	-	10.6			
211001	Rehabilitation of Primary Clarifiers,										
	Rectangular Tanks, Drain Lines,										
	Electrical/Mechanical Building and Pipe	514 000 4	544	7 5	4.0		F 4 7				
00000	Gallery	FY 2021	54.1	7.5	1.9	-	54.7	-			
232002	Freud & Conner Creek Pump Station Improvements	FY 2029	229.3	1.7	3.2		5.9	4.6			
260504	•	FY 2029	229.3 5.1	2.2	3.2 2.7	-	5.9 4.9	4.0			
200001	WRRF Rouge River Outfall (RRO)	FT 2021	5.1	2.2	2.1	-	4.9	-			
212002	Disinfection Design	FY 2020	10.8	_	-	10.8		-			
212003	WRRF Aeration System Improvements	FY 2020	14.6	0.2	-	16.5		_			
	WRRF Rouge River Outfall (RRO)	1 1 2020	14.0	0.2	_	10.0	_	_			
212000	Disinfection (Alternative)	FY 2020	43.8	2.1	-	43.8	-	-			
	Other projects			27.9	24.0	10.0	1.9	48.5			
	Total			\$ 73.8	\$ 81.5	\$ 90.5	\$ 67.4	\$ 191.1			
	IUlai			\$ 73.8	φ 01.5	φ 90.5	φ 07.4	φ 191.1			



Management's Discussion and Analysis

Long-term Debt

The Authority's long-term debt consists of revenue bonds and loans as well as an obligation payable related to the City of Detroit's Financial Recovery bonds and a liability related to raw water rights that the Authority will own at the end of the agreement. See Note 13 for a complete analysis of the long-term debt. The following analysis focuses on the revenue bonds and loans. At year-end, the Authority had \$5.2 billion of long-term debt for revenue bonds, including capital appreciation bonds and state revolving fund loans. Of the total, \$2.3 billion is assigned to the Water System and \$2.9 billion is assigned to the Sewage Disposal System.

		Revenue Bonds and Loans (\$000)								
		Fiscal Year		Change 2021	vs 2020	Change 2020	vs 2019			
	2021	2020	2019	Amount	Percent	Amount	Percent			
Revenue bonds	\$ 4,707,965	\$ 4,840,155	\$ 4,824,710	\$ (132,190)	-2.7%	\$ 15,445	0.3%			
Capital appreciation										
bonds	5,675	11,335	14,780	(5,660)	-49.9%	(3,445)	-23.3%			
State revolving loans	488,027	488,985	504,038	(958)	-0.2%	(15,053)	-3.0%			
Total revenue bonds										
and loans	\$ 5,201,667	\$ 5,340,475	\$ 5,343,528	\$ (138,808)	-2.6%	\$ (3,053)	-0.1%			

Water Fund

The total outstanding debt for the Water System is \$2.3 billion, decreasing by \$37.5 million from the prior year.

Approximately 3.2 percent of the total indebtedness is issued through the State of Michigan revolving fund loan program for the benefit of the Water System. The Water System received \$35.9 million in new state revolving fund loans and received \$2.0 million in loan forgiveness. The amount of state revolving fund loans pass-through to DWSD for local system improvements was \$15.7 million as well as the \$2.0 million in loan forgiveness.

		Water Fund Revenue Bonds and Loans (\$000)									
		Fiscal Year	Change 2021	vs 2020	Change 2020 vs 2019						
	2021	2020	2019	Amount	Percent	Amount	Percent				
Revenue bonds	\$ 2,192,510	\$ 2,261,935	\$ 2,220,320	\$ (69,425)	-3.1%	\$ 41,615	1.9%				
State revolving loans	71,260	39,318	29,861	31,942	81.2%	9,457	31.7%				
Total revenue bonds											
and loans	\$ 2,263,770	\$ 2,301,253	\$ 2,250,181	\$ (37,483)	-1.6%	\$ 51,072	2.3%				

Repayment of GLWA bonds issued are funded by charges to all member partners. Repayment of the debt service assigned to DWSD for Local System improvements are paid from retail customer collections by DWSD.



Management's Discussion and Analysis

Sewage Disposal Fund

The total outstanding debt for the Sewage Disposal System is \$2.9 billion, decreasing by \$101.3 million from the prior year.

Approximately 14.2 percent of the total indebtedness is issued through the State of Michigan revolving fund loan program for the benefit of the Sewage Disposal System. The Sewage Disposal System received \$17.3 million in new state revolving fund loans.

	Sewage Disposal Fund Revenue Bonds and Loans (\$000)									
		Fiscal Year		Change 2021	vs 2020	Change 2020) vs 2019			
	2021	2020	2019	Amount	Percent	Amount	Percent			
Revenue bonds	\$ 2,515,455	\$ 2,578,220	\$ 2,604,390	\$ (62,765)	-2.4%	\$ (26,170)	-1.0%			
Capital appreciation										
bonds	5,675	11,335	14,780	(5,660)	-49.9%	(3,445)	-23.3%			
State revolving loans	416,768	449,667	474,177	(32,899)	-7.3%	(24,510)	-5.2%			
Total revenue bonds										
and loans	\$ 2,937,898	\$ 3,039,222	\$ 3,093,347	\$ (101,324)	-3.3%	\$ (54,125)	-1.7%			

Repayment of GLWA bonds issued are funded by charges to all member partners. Repayment of the debt service assigned to DWSD for Local System improvements is paid from retail customer collections by DWSD.

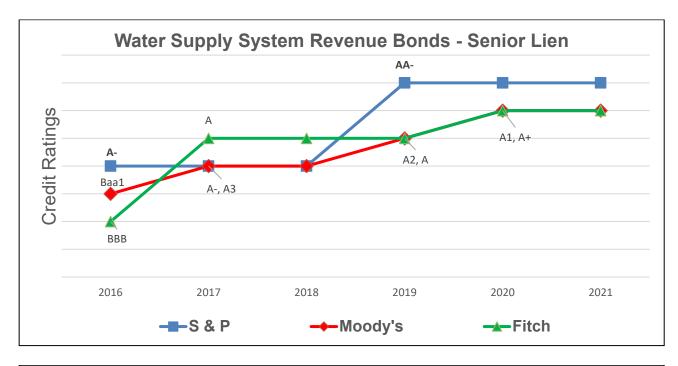
Credit Ratings

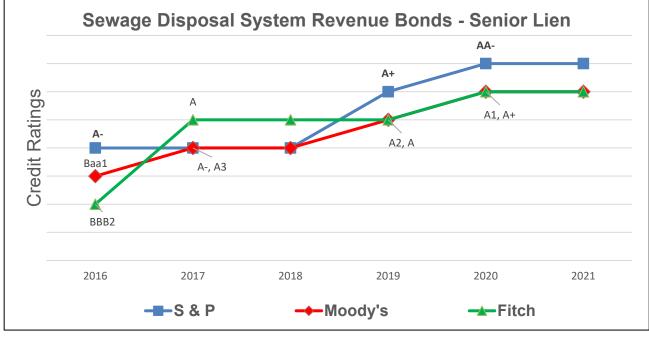
In March 2020 the Authority's ratings were upgraded or affirmed. For both the Water System and the Sewage Disposal System, Fitch Ratings upgraded the ratings with senior lien debt at A+ and second lien at A, both with a stable outlook; Standard & Poor's affirmed the Authority's ratings with water senior lien debt at AA- and second lien at A+, and upgraded the sewage disposal senior lien one notch to AA- and second lien at A+, all with a stable outlook; and Moody's upgraded the Authority's ratings one notch with senior lien debt at A1 and second lien at A2, all were assigned a stable outlook.



Management's Discussion and Analysis

The following charts provide the credit rating history for senior lien revenue bonds since the GLWA began operations in 2016.





Additional information on the Authority's long-term debt can be found in Note 13.



Management's Discussion and Analysis

Economic Factors Affecting Next Year's Operations and Rates

On March 24, 2021, the GLWA Board adopted the biennial budget for the Authority for fiscal years 2022 and 2023. That two-year financial plan remains true to a foundational commitment to control the budget within a 4 percent revenue cap as further described below.

Water Fund

For FY 2022 the budget increased by 0.7 percent. This translated into a regional system average charge increase of 1.5 percent and suburban wholesale member partner average charge increase of 1.9 percent depending on each customers usage in relation to other customers. The local system charge decreased 2.0 percent.

Sewage Disposal Fund

For FY 2022 budget decreased by 2.3 percent. This translated into a regional system average charge decrease of 0.6 percent and suburban wholesale member partner average charge decrease of 0.1 percent. The local system charge decreased 0.7 percent.

Requests for Information

This financial report is designed to provide a general overview of GLWA's finances for all those with an interest in the Authority's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to Great Lakes Water Authority, Office of the Chief Financial Officer, 735 Randolph, Detroit, Michigan 48226. This report is also available on the Authority's website at www.glwater.org.

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BASIC FINANCIAL STATEMENTS

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STATEMENT OF NET POSITION As of June 30, 2021 With Comparative Amounts at June 30, 2020

	Enterpris	se Funds		
	Water Fund	Sewage Disposal Fund	Total Business-type Activities	2020 Total Business-type Activities
Assets				
Current Assets				
Cash and cash equivalents	\$ 162,766,427	\$ 191,584,705	\$ 354,351,132	\$ 208,356,720
Restricted cash and cash equivalents	65,677,030	85,509,014	151,186,044	65,364,730
Restricted cash for the benefit of DWSD	3,144,400	2,919,797	6,064,197	1,544,529
Investments	190,541,958	132,388,013	322,929,971	473,549,014
Restricted investments	2,932,400	28,758,582	31,690,982	117,966,914
Receivables, net	67,284,676	45,041,213	112,325,889	105,371,334
Due from other governments	11,889,748	1,351,111	13,240,859	31,802,636
Due from other funds	2,786,344	162,368	2,948,712	2,134,191
Contractual obligation receivable	16,558,716	14,637,184	31,195,900	29,661,490
Loan receivable - DWSD	-	8,296,578	8,296,578	18,206,431
Prepaid items and other assets	7,601,239	4,143,303	11,744,542	10,150,336
Inventories	794,521	7,000,631	7,795,152	7,007,208
Total Current Assets	531,977,459	521,792,499	1,053,769,958	1,071,115,533
Noncurrent Assets				
Restricted cash and cash equivalents	2,519,127	2,876,374	5,395,501	47,505,584
Restricted investments	8,651,762	29,882,148	38,533,910	39,819,506
Contractual obligation receivable	552,093,376	384,718,443	936,811,819	954,297,909
Loan receivable - DWSD	-	-	-	8,296,578
Prepaid lease	11,250,000	13,750,000	25,000,000	25,000,000
Assets not subject to depreciation	498,010,970	315,474,451	813,485,421	719,865,490
Capital assets being depreciated, net	1,324,554,087	2,221,472,660	3,546,026,747	3,689,047,120
Intangible assets, net	94,219,373	4,433,681	98,653,054	97,786,037
Prepaid insurance on debt	7,304,243	11,053,199	18,357,442	19,988,764
Total Noncurrent Assets	2,498,602,938	2,983,660,956	5,482,263,894	5,601,606,988
Total Assets	3,030,580,397	3,505,453,455	6,536,033,852	6,672,722,521
Deferred Outflows of Resources				
Deferred charge on refunding	44,677,823	118,709,227	163,387,050	174,435,795
Deferred pension amounts	22,112,642	39,574,610	61,687,252	42,661,204
Total Deferred Outflows of Resources	66,790,465	158,283,837	225,074,302	217,096,999

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	Enterprise Funds				
	Water Fund	Sewage Disposal Fund	Total Business-type Activities	2020 Total Business-type Activities	
Liabilities					
Current Liabilities					
Accounts and contracts payable	\$ 53,039,330	\$ 32,182,085	\$ 85,221,415	\$ 74,070,629	
Accrued salaries, wages and benefits	4,892,033	1,136,565	6,028,598	5,321,864	
Other accrued liabilities	6,958,556	4,615,255	11,573,811	5,357,056	
Due to other governments	15,693,993	3,750,000	19,443,993	20,032,254	
Due to other funds	162,368	2,786,344	2,948,712	2,134,191	
Interest payable	36,621,768	35,189,612	71,811,380	58,452,960	
Current portion of	00,021,100	00,100,012	,,	00,102,000	
Revenue bonds and loans	32,500,450	87,409,283	119,909,733	121,998,075	
Raw water rights obligation	2,734,246	-	2,734,246	2,624,820	
Obligation payable	194,242	436,911	631,153	601,097	
Regional system leases	5,454,878	6,667,073	12,121,951	11,627,700	
Other liabilities	3,123,843	2,743,360	5,867,203	6,380,583	
Total Current Liabilities	161,375,707	176,916,488	338,292,195	308,601,229	
Noncurrent Liabilities					
Revenue bonds and loans	2,407,391,624	2,912,505,035	5,319,896,659	5,474,913,736	
Raw water rights obligation	95,361,056	2,512,505,055	95,361,056	98,095,302	
Obligation payable	16,542,293	37,208,869	53,751,162	54,382,315	
Regional system leases	405.782.406	495.956.275	901.738.681	913.860.632	
Other liabilities	4,138,780	17,376,059	21,514,839	18,757,906	
Net pension liability	51,728,179	92,577,019	144,305,198	132,909,889	
Total Noncurrent Liabilities	2,980,944,338	3,555,623,257	6,536,567,595	6,692,919,780	
Total Liabilities	3,142,320,045	3,732,539,745	6,874,859,790	7,001,521,009	
Deferred Inflows of Resources					
Deferred gain on refunding	52,250,187	44,046,097	96,296,284	103,809,499	
Deferred amounts for swap terminations	66,164	18,041	84,205	106.515	
Deferred capital contribution				5,960,000	
Total Deferred Inflows of Resources	52,316,351	44,064,138	96,380,489	109,876,014	
Net Position					
Net investment in capital assets	(191,352,010)	(110,660,463)	(302,012,473)	(351,218,780)	
Restricted for debt service	23,688,943	90,855,751	114,544,694	105,282,969	
Restricted for payment assistance program	4,614,294	6,428,815	11,043,109	8,988,078	
Unrestricted (deficit)	65,783,239	(99,490,694)	(33,707,455)	15,370,230	
TOTAL NET POSITION	<u>\$ (97,265,534)</u>	<u>\$ (112,866,591)</u>	<u>\$ (210,132,125)</u>	<u>\$ (221,577,503)</u>	

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GREAT LAKES WATER AUTHORITY

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION For the Year Ended June 30, 2021

With Comparative Amounts for the Year Ended June 30, 2020

	Enterprise Funds			
	Water Fund	Sewage Disposal Fund	Total Business-type Activities	2020 Total Business-type Activities
Operating Revenues				
Wholesale customer charges	\$ 322,423,768	\$ 267,567,816	\$ 589,991,584	\$ 578,705,063
Local system charges	21,925,500	187,959,700	209,885,200	207,102,800
Industrial waste charges	-	8,004,939	8,004,939	7,854,593
Pollutant surcharges	-	6,719,964	6,719,964	6,448,508
Other revenues	265,822	501,121	766,943	778,257
Total Operating Revenues	344,615,090	470,753,540	815,368,630	800,889,221
Operating Expenses				
Operating expenses before				
depreciation and amortization				
Personnel	43,889,495	63,055,636	106,945,131	104,266,420
Contractual services	40,410,811	62,913,214	103,324,025	109,448,358
Utilities	28,828,226	23,921,428	52,749,654	51,152,735
Chemicals	6,028,141	7,953,995	13,982,136	14,241,843
Supplies and other expenses	9,158,990	21,938,081	31,097,071	35,427,273
Capital adjustment	-	-	-	26,780
Capital program allocation	(2,123,060)	(1,068,749)	(3,191,809)	(3,347,401)
Intergovernmental reimbursements	(2,554,511)	(612,181)	(3,166,692)	(1,733,710)
Total operating expenses before				
depreciation and amortization	123,638,092	178,101,424	301,739,516	309,482,298
Depreciation	123,271,541	150,772,065	274,043,606	280,104,195
Amortization of intangible assets	3,566,664	109,926	3,676,590	3,566,664
Total Operating Expenses	250,476,297	328,983,415	579,459,712	593,153,157
Operating Income	94,138,793	141,770,125	235,908,918	207,736,064
Nonoperating Revenues (Expenses)				
Earnings on investments	4,215,105	2,825,144	7,040,249	19,445,105
Net increase (decrease) in fair value of investments	(3,446,187)	(2,334,438)	(5,780,625)	5,971,601
Interest on loan and obligations receivable	25,474,904	18,247,607	43,722,511	42,434,884
Interest expense	(128,257,367)	(135,227,647)	(263,485,014)	(288,947,856)
Amortization of debt related items and cost of issuance	15,988,278	(3,022,639)	12,965,639	10,302,560
Legacy pension expense	(8,075,457)	(14,452,504)	(22,527,961)	(20,143,505)
WRAP (Water Residential Assistance Program)	(593,206)	(924,247)	(1,517,453)	(3,315,117)
Other	(176,909)		(475,849)	2,552,295
Loss on disposal of capital assets	(123,932)	· · /	(365,037)	(1,316,886)
Loss on impairment of capital assets				(1,432,027)
Total Nonoperating Expenses	(94,994,771)	(135,428,769)	(230,423,540)	(234,448,946)
Income (loss) before capital contributions	(855,978)	6,341,356	5,485,378	(26,712,882)
Capital Contributions		5,960,000	5,960,000	5,960,000
Change in net position	(855,978)	12,301,356	11,445,378	(20,752,882)
NET POSITION (DEFICIT), Beginning of Year	(96,409,556)	(125,167,947)	(221,577,503)	(200,824,621)
NET POSITION (DEFICIT), END OF YEAR	<u>\$ (97,265,534</u>)	<u>\$ (112,866,591)</u>	<u>\$ (210,132,125)</u>	<u>\$ (221,577,503)</u>

The accompanying notes are an integral part of these financial statements.

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STATEMENT OF CASH FLOWS For the Year Ended June 30, 2021 With Comparative Amounts for the Year Ended June 30, 2020

	Enterpris	Enterprise Funds		
	Water	Sewage Disposal	Total Business-type	2020 Total Business-type
	Fund	Fund	Activities	Activities
Cash Flows From Operating Activities				
Cash received from customers	\$ 332,140,177	\$ 469,974,866	\$ 802,115,043	\$ 796,179,819
Cash received from intergovernmental reimbursements	10,417,372	251,301	10,668,673	12,455,779
Cash payments for intergovernmental services provided	(2,554,512)	(612,181)	(3,166,693)	(1,733,706)
Cash payments to suppliers for goods and services	(89,693,756)	(110,575,113)	(200,268,869)	(206,896,029)
Cash payments for employee services	(41,372,179)	(60,883,214)	(102,255,393)	(98,823,925
Cash payments to other governments for obligation payable	(875,508)	(1,969,295)	(2,844,803)	(2,844,804
Cash payments for WRAP	(593,206)	(924,247)	(1,517,453)	(3,315,117
Cash payments for GLWA share pension agreement	(11,440,800)	(20,475,400)	(31,916,200)	(31,916,200
Cash received from insurance for fire remediation	-	1,695,458	1,695,458	-
Nonoperating cash received	1,740	20,784	22,524	1,666,015
Cash received for DWSD nonoperating pension	4,427,400	3,066,800	7,494,200	7,494,200
Cash paid for DWSD nonoperating pension	(4,427,393)	(3,066,807)	(7,494,200)	(7,494,200
Cash received for DWSD WRAP	654,800	1,349,200	2,004,000	766,800
Cash payments for DWSD WRAP	(1,416,056)	(2,266,491)	(3,682,547)	(684,883
Cash received (paid) for DWSD budgetary surplus (shortfall)	1,356,365	13,109,997	14,466,362	(11,752,499
Principal payments received on obligation receivable	14,834,700	13,664,500	28,499,200	27,282,900
Interest received on obligation receivable	27,037,200	17,994,154	45,031,354	40,792,852
Principal payments received on loan receivable	-	18,206,431	18,206,431	17,542,670
Interest received on loan receivable	-	635,284	635,284	1,299,047
Payments for bond issuance costs on DWSD debt	(20,328)	-	(20,328)	(180,078
Payments of state revolving fund loan proceeds to DWSD	(15,741,109)		(15,741,109)	(6,791,655
Net Cash Provided by Operating Activities	222,734,907	339,196,027	561,930,934	533,046,986
Cash Flows From Noncapital Financing Activities				
Proceeds from long-term debt for DWSD	-	-	-	202,231
Proceeds from state revolving fund loans for DWSD	15,741,109	-	15,741,109	6,791,655
Principal payments	(14,834,700)	(13,619,500)	(28,454,200)	(25,912,900
Interest payments	(24,641,858)	(18,009,700)	(42,651,558)	(42,011,286
Net Cash Used in Noncapital Financing Activities	(23,735,449)	(31,629,200)	(55,364,649)	(60,930,300)
Cash Flows From Capital and Related Financing Activities				
Proceeds from sale of assets	29,271	52,779	82,050	662,156
Capital contributions	-	-	-	11,920,000
Proceeds from issuance of long-term refunding debt for COI	-	-	-	2,013,998
Proceeds from state revolving fund loans	20,186,528	17,261,319	37,447,847	34,457,154
Payment to bond refunding escrow agent	-	-	-	(68,912,102
Payment of bond issuance costs	(128,602)	(555,801)	(684,403)	(1,467,202
Principal payments on bonds	(56,545,300)	(104,965,500)	(161,510,800)	(140,957,100
Principal payments on regional system leases	(5,232,465)	(6,395,235)	(11,627,700)	(11,153,607
Principal payments on right to use lease	-	(96,310)	(96,310)	-
Interest payments	(93,163,708)	(107,543,682)	(200,707,390)	(243,319,080
Purchase of capital assets	(126,703,053)	(88,804,223)	(215,507,276)	(157,631,444)
Net Cash Used in Capital and Related Financing Activities	(261,557,329)	(291,046,653)	(552,603,982)	(574,387,227)

Continued on Next Page

	Enterpris	e Funds		
	Water Fund	Sewage Disposal Fund	Total Business-type Activities	2020 Total Business-type Activities
Cash Flows From Investing Activities				
Investment purchases	\$ (179,484,109)	\$ (255,538,068)	\$ (435,022,177)	\$ (883,667,202)
Investment maturities	321,542,000	346,505,000	668,047,000	722,484,449
Interest received	4,479,589	2,758,596	7,238,185	15,210,103
Net Cash Used in Investing Activities	146,537,480	93,725,528	240,263,008	(145,972,650)
Net change in cash and cash equivalents	83,979,609	110,245,702	194,225,311	(248,243,191)
CASH AND CASH EQUIVALENTS, Beginning of Year	150,127,375	172,644,188	322,771,563	571,014,754
CASH AND CASH EQUIVALENTS, END OF YEAR	<u>\$ 234,106,984</u>	<u>\$282,889,890</u>	<u>\$516,996,874</u>	<u>\$ 322,771,563</u>
STATEMENT OF NET POSITION CLASSIFICATION OF CASH				
Cash and cash equivalents	\$ 162,766,427	\$ 191,584,705	\$ 354,351,132	\$ 208,356,720
Restricted cash and cash equivalents	65,677,030	85,509,014	151,186,044	65,364,730
Restricted cash for the benefit of DWSD	3,144,400	2,919,797	6,064,197	1,544,529
Noncurrent restricted cash and cash equivalents	2,519,127	2,876,374	5,395,501	47,505,584
CASH AND CASH EQUIVALENTS, END OF YEAR	\$ 234,106,984	\$ 282,889,890	<u> </u>	<u>\$ 322,771,563</u>
NONCASH OPERATING ACTIVITIES				
Credits given on billings-Flint KWA obligation	\$ (6,652,253)	<u>\$</u>	\$ (6,652,253)	\$ (6,652,348
Interest income obligation receivable premium amortization	\$ (785,463)	\$ (376,827)	\$ (1,162,290)	\$ (490,247
NONCASH FINANCING AND INVESTMENT ACTIVITIES				
Net proceeds deposited into an escrow account for refunding	<u>\$</u>	\$	<u>\$</u>	\$ 1,059,471,666
Bond proceeds to DWSD construction account	<u>\$</u>	\$ \$	<u>\$</u>	\$ 99,531,655
Increase in lease liability right to use asset	\$	\$ 4,543,607	\$ 4,543,607	\$-
Increase in intangible right to use asset	\$	\$ 4,543,607	\$ 4,543,607	\$
Decrease in raw water rights obligation	\$ 2,624,820	<u>\$</u>	\$ 2,624,820	\$ 2,520,997
Interest paid for raw water rights obligation	\$ 4,027,433	<u>\$</u>	\$ 4,027,433	\$ 4,122,851
Change in unrealized gain on investments	\$ 6,705,494	\$ 5,046,732	<u>\$ 11,752,226</u>	\$ 1,822,111
Interest expense due to accretion	<u>\$</u>	\$ 496,509	\$ 496,509	\$ 734,587
Amortization expense	\$ 16,116,880	\$ (2,466,838)	\$ 13,650,042	\$ 14,716,601

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STATEMENT OF CASH FLOWS For the Year Ended June 30, 2021 With Comparative Amounts for the Year Ended June 30, 2020

	Enterpri	se Funds			
		Sewage	Total	2020 Total	
	Water Fund	Disposal Fund	Business-type Activities	Business-type Activities	
Reconciliation of Operating Income to Net					
Cash Provided by Operating Activities:					
Operating income	\$ 94.138.793	\$ 141,770,125	\$ 235,908,918	\$ 207,736,064	
Adjustments to reconcile operating income	, - , - ,	, , , -, -	*,,	• • • • • • • • • •	
to net cash provided by operating activities:					
Depreciation	123,271,541	150,772,065	274,043,606	280,104,195	
Amortization of intangible assets	3,566,664	109,926	3,676,590	3,566,664	
Credits for raw water rights	(6,652,253)	-	(6,652,253)	(6,652,34	
Miscellaneous nonoperating income (expense)	1,740	20,784	22,524	1,666,01	
Legacy pension expense and administrative fee	(8,254,106)	(14,772,228)	(23,026,334)	(20,748,98	
WRAP (Water Residential Assistance Program)	(593,206)	(924,247)	(1,517,453)	(3,315,11	
Loan forgiveness pass-through to DWSD	(2,031,300)	-	(2,031,300)	(4,711,94	
Bond proceeds for DWSD treated as noncash (1)	-	-	-	99,783,78	
Interest income on contractual obligation receivable	25,474,904	17,612,323	43,087,227	41,135,83	
Interest income on loan receivable	-, ,	635,284	635,284	1,299,04	
Interest expense on obligation payable	(690,516)	(1,553,190)	(2,243,706)	(2,272,36	
Changes in:	(() , ,	() - , ,	(),,,	
Receivables	(5,824,289)	(778,674)	(6,602,963)	2,835,93	
Due from other governments	8,375,867	9,834,318	18,210,185	(67,72	
Due from other funds	(652,153)	(162,368)	(814,521)	755,33	
Contractual obligation receivable	1,910,354	14,041,326	15,951,680	(74,292,58	
Loan receivable	-	18,206,431	18,206,431	17,542,67	
Prepaid items and other assets (excludes investing item)	(1,712,553)	(704,466)	(2,417,019)	(1,569,87	
Inventories	(157,900)	(630,044)	(787,944)	(1,174,61	
Accounts and contracts payable (excludes capital items)	(352,968)	1,920,781	1,567,813	(1,198,92	
Accrued salaries, wages and benefits	(429,831)	1,136,565	706,734	1,037,64	
Other accrued liabilities (excludes capital items)	1,601,500	4,615,255	6,216,755	(1,752,53	
Due to other governments (excludes	,	,,	-, -,	() -)	
non-capital financing)	(2,588,261)	2,000,000	(588,261)	4,068,32	
Due to other funds	162,368	652,153	814,521	(755,33	
Obligation payable including accrued interest	(184,992)	(416,105)	(601,097)	(572,43	
Accrued compensated absences	(154,380)	(52,300)	(206,680)	597,79	
Accrued workers' compensation	78,983	(02,000)	78,983	(40,64	
Claims and judgments	(2,072,500)	1,675,000	(397,500)	(23,61	
Other noncurrent liabilities	(761,256)	(917,291)	(1,678,547)	81,91	
Net pension liability and deferred items	(2,735,343)	(4,895,396)	(7,630,739)	(10,015,19	
NET CASH PROVIDED BY OPERATING ACTIVITIES	\$ 222,734,907	\$ 339,196,027	\$ 561,930,934	\$ 533,046,98	

(1) Represents bond proceeds for DWSD local system and DWSD share of underwriting costs from 2020 bond transaction that were paid directly by the bond trustee to the underwriter and the DWSD construction fund.



NOTES TO FINANCIAL STATEMENTS



INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

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NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Great Lakes Water Authority (GLWA or the Authority) is the regional wholesale provider of water and sewage disposal services in southeast Michigan. The Authority was incorporated by the counties of Macomb, Oakland, Wayne and the City of Detroit (the City) on November 26, 2014 pursuant to Act 233, Public Acts of Michigan, 1955, as amended (Act 233). Pursuant to Regional System Leases that became effective on January 1, 2016, the Authority assumed possession and control of the regional assets of both the water supply and sewage disposal systems owned by the City, which were previously operated by the Detroit Water and Sewerage Department (DWSD). The City, acting through DWSD, will continue to manage and operate its own local retail water and sewage disposal system infrastructure. The Regional System Leases assigned all revenues of both systems to the Authority for an initial term of 40 years and, pursuant to bondholder consent, replaced the City with GLWA as the obligor on all outstanding debt obligations of the City related to the systems.

The term "Regional System Leases" is used throughout the financial statements to represent the agreements that transferred the regional water system and sewage disposal system assets and operations from the City of Detroit to GLWA. The Regional System Leases are not considered a lease as defined by the Government Auditing Standards Board (GASB) in GASB Statement No. 87, *Leases*.

The Authority's water system is one of the largest in the United States, both in terms of water produced and population served. The water system currently serves an area of 1,698 square miles located in eight Michigan counties and an estimated population of approximately 3.8 million or approximately 38% of Michigan's population. Suburban wholesale customers comprise approximately 82% of the population in the service area, and the DWSD retail water customers comprise the remainder.

The Authority's sewage disposal system is one of the largest in the United States, both in terms of treatment capacity and population served. The sewer disposal system currently serves an area of 944 square miles located in three Michigan counties and an estimated population of approximately 2.8 million or approximately 28% of Michigan's population. Suburban customers comprise approximately 76% of the population in the service area, and the DWSD retail sewer customers comprise the remainder.

The Authority's Board is authorized to establish rates, fees and charges for its water supply and sewage disposal services. Under the Water and Sewer Services Agreement, the City is appointed as agent of the Authority for setting retail rates and for billing, collecting and enforcing the collection of charges from retail water and sewer customers. As an agent of the Authority, the City, through the Board of Water Commissioners and without further approval by the City Council, is required to set retail rates to meet the revenue requirements that the Authority establishes for the retail system for regional commitments as well as other reasonable costs of the local DWSD systems. Under certain conditions, the Authority may terminate the City's appointment.

The financial statements of the Authority have been prepared in conformity with generally accepted accounting principles (GAAP) as applied to government units. The Governmental Accounting Standards Board (GASB) is the accepted standard setting body for establishing governmental accounting and financial reporting principles. The more significant of the Authority's accounting policies are described below.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

REPORTING ENTITY

The GLWA Board is composed of six voting members. Two members are residents of the City of Detroit and are appointed by the Mayor of the City of Detroit. The chief executive of the counties of Macomb, Oakland and Wayne each appoint one member who is a resident of the county from which appointed and the Governor of the State of Michigan appoints one member who is a resident of an area served by the Authority outside of the counties. All members of the GLWA Board must have at least seven years of experience in a regulated industry, a utility, engineering, finance, accounting or law firm. After the initial term specified in its Articles of Incorporation, each GLWA Board member is appointed for a four-year term and serves at the pleasure of the appointing government.

The GLWA Board has adopted a committee structure. Four committees have been established: Audit, Capital Improvement Planning, Operations and Resources, and Legal.

BASIS OF PRESENTATION

The Authority presents a water enterprise fund and a sewage disposal enterprise fund for its basic financial statements which consists of a statement of net position, statement of revenues, expenses and changes in net position, a statement of cash flows and these notes to the financial statements.

BASIS OF ACCOUNTING

The accounting policies of the Authority conform to GAAP as applicable to governmental entities. The accounts of the Authority are used to account for its activities, which are financed and operated in a manner similar to a private business enterprise. Accordingly, the Authority maintains its records on the accrual basis of accounting. Revenues from operations, investments and other sources are recorded when earned. Expenses (including depreciation) of providing services to the public are accrued when incurred.

Nonexchange transactions, in which the Authority receives value without directly giving equal value in return, include contributions and grants. On an accrual basis, revenue from contributions and grants is recognized in the fiscal year in which all eligibility requirements have been satisfied, including timing and expense requirements. Timing requirements specify the year when the resources are required to be used or the fiscal year when use is first permitted. Expense requirements specify the year in which the resources are provided to the Authority on a reimbursement basis.

Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position

Cash and Cash Equivalents and Investments

The Authority's cash and cash equivalents are considered to be cash on hand, demand deposits and shortterm investments with original maturities of three months or less from the date of acquisition. Investments are reported at fair value or estimated value. The Authority maintains and adheres to a formal investment policy in accordance with Michigan Public Act 20 of 1943, Investment of Surplus Funds of Political Subdivisions. Michigan State law allows the Authority to deposit in the accounts of federally insured banks, credit unions and savings and loan associations and to invest in obligations of the U.S. Treasury, certain commercial paper, repurchase agreements, bankers' acceptances and mutual funds composed of otherwise legal investments. These investments are subject to interest rate risk and credit risk which may affect the value at which these investments are recorded.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Restricted Assets

Restricted assets are those assets set aside as required by the Authority's Master Bond Ordinance (MBO), funds held on behalf of another entity, or where legally restricted for a particular purpose such as bond proceeds for the capital program. See Note 4 for further details.

Accounts Receivable

The Authority records unbilled revenues for services provided prior to year-end by accruing actual revenues billed in the subsequent month. The Authority recognizes an estimate of uncollectible accounts for its customer accounts receivable related to its water and sewage disposal services.

Due from and Due to Other Governments

The due from other governments includes amounts owed to the Authority by DWSD for shared services, accrued interest receivable on the contractual obligation receivable and state grants. The due to other governments includes amounts owed by the Authority to DWSD for shared services and green infrastructure program.

Due from and Due to Other Funds

An amount owed between the Water and Sewage Disposal Funds based on shared centralized and administrative services administered by the Water Fund and allocated to the Sewage Disposal Fund. Any water system usage of inventory in the Sewage Disposal Fund is charged through an interfund payable to the Sewage Disposal Fund.

Contractual Obligation Receivable

Pursuant to the Water and Sewer Services Agreement, the City through DWSD is responsible for paying the portion of debt service on the bonds assumed by the Authority that were issued to finance the cost of improvements to the Detroit local facilities. The resulting contractual obligation is a receivable recorded by the Authority and is repaid by DWSD based upon an agreed upon schedule. Any new debt issued on behalf of the City for DWSD is also included in the contractual obligation receivable.

Loan Receivable – DWSD

The balance represents loan receivables from DWSD established per the 2018 Memorandum of Understanding (MOU) dated June 27, 2018 executed between DWSD and the Authority to cure any shortfall created from difference between cash receipts and the MBO obligations. An annual loan amount and interest rate is determined based on any shortfalls during each fiscal year. There was no shortfall of local revenue requirements for the year ending June 30, 2021. The \$10.2 million shortfall in the sewage disposal fund for fiscal year ending June 30, 2020, did not become a loan receivable as it was repaid during the fiscal year ended June 30, 2021.

Prepaid Items and Other Assets

Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid items in the financial statements. Prepaid insurance on debt is amortized over the life of the debt. Other assets include accrued interest receivable on investments.

Inventories

Inventories consist of operating, maintenance and repair parts for water and sewage disposal system assets and are valued at the lower of cost or market, with cost being determined on an average cost method. Inventory is recorded as expense when consumed rather than when purchased.

Prepaid Lease

As described in Note 14, the Authority has recorded a prepaid lease for cash paid to DWSD on the date GLWA began operations equivalent to six months of lease payments. As noted in the 2018 MOU dated June 2018, this amount will be applied at the end of the 40-year term and, hence, it is classified as a noncurrent asset.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Capital Assets

Capital assets are recorded at historical cost. All acquisitions of land and land improvements are capitalized regardless of cost. The capitalization threshold is \$5,000 for capital assets with the exception of certain information technology which is \$1 million dollars. The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend assets' lives are not capitalized. Major outlays for capital assets and improvements are capitalized as projects are constructed.

Capital assets acquired after January 1, 2016 are depreciated on the straight-line basis over the useful life of the assets as follows:

	Useful Lives (In Years)
Site improvemente	15
Site improvements Buildings and structures	20-50
Infrastructure	80
Machinery and equipment	3-20
Vehicles	5-7
Leasehold improvements	15

Capital assets acquired as of the operational effective date of the Authority at January 1, 2016 are depreciated over their estimated remaining useful lives at that time as determined by a third-party valuation. These remaining lives differ from the years cited above for newly acquired capital assets and, in most instances, are significantly shorter.

Intangible Assets

The Authority has recorded an intangible asset for raw water rights which are being amortized on a straightline basis over 30 years in the water fund. See Note 10 for a description of these rights. The Authority has recorded a right to use intangible asset for the lease of a warehouse in the sewage disposal fund. See Note 15 for a description of the leased right to use asset.

Deferred Outflows of Resources

In addition to assets, the statement of net position reports a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to future periods. At that time, the activity will be recognized as an outflow of resources (or expense). The Authority reports deferred outflows of resources for two items: deferred charges on refunding and pension amounts. Deferred charges on refunding results from the difference in the carrying value of refunded debt and its reacquisition price; these amounts are deferred and amortized over the shorter of the life of the refunded or refunding debt. Deferred outflows of resources from pension amounts relate to differences between expected and actual investment returns and contributions to the plan subsequent to the plan measurement date. More detailed information on pension amounts can be found in Note 18.

Other Accrued Liabilities

Other accrued liabilities represent amounts held for specific purposes or other parties as described below:

- Under the terms of the MBO, the Authority retains cash on hand for the benefit of DWSD to be used for current revenue requirements.
- The Authority holds a customer deposit for \$3,750,000 plus interest earned net of bank fees.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Arbitrage Rebate Payable

Certain bonds are subject to arbitrage rebate requirements in accordance with regulations issued by the U.S. Treasury Department. The requirements generally stipulate that earnings from the investment of the tax-exempt bond proceeds that exceeds related interest costs on the bonds must be remitted to the Federal government on every fifth anniversary of each bond issue. The Authority did not have an arbitrage rebate liability as of June 30, 2021.

Revenue Bonds and Loans

The Authority issues revenue bonds to finance capital improvement projects, refund outstanding bonds to reduce future debt service payment and pay the cost of issuance. Loans are direct borrowings through the State of Michigan revolving fund loan program. Bond premiums and discounts are deferred and amortized over the life of the bonds using the effective interest method. Bonds payable are reported net of the applicable bond premium or discount. See Note 13 for the details on revenue bonds and loans.

Raw Water Rights Obligation

The Authority has recorded a liability for the purchase obligation on raw water rights. See Note 13 for the details of this obligation.

Obligation Payable

Under the terms of the lease agreements with the City, the Authority is required to pay a portion of the City's B and C notes allocated to the regional water and sewage disposal systems. See "Obligation Payable - City of Detroit 2014 Financial Recovery Bonds" in Note 13.

Regional System Leases

The effective date of the Regional System leases by the City to the Authority for the leased water and sewage disposal facilities was January 1, 2016. See Note 14 for the details of the regional system leases.

Other Liabilities

Other liabilities include the following liabilities which are discussed in Note 15:

- Lease payable Right to use asset
- Compensated absences
- Workers' compensation
- Claims and judgements
- Cash held for the benefit of DWSD budget stabilization

Net Pension Liability

Under the terms of the Regional System leases, the Authority is a nonemployer contributing entity in the City of Detroit General Employee's Retirement system (GRS) Component II plan in a special funding situation. For the purposes of measuring the net pension liability, deferred outflows, and pension expense, information about the fiduciary net position of the Component II plan of the GRS and additions to/ deductions from the plan's net position have been determined on the same basis as they are reported by GRS. The GRS combined plan uses the economic resources measurement focus and the full accrual basis of accounting. Revenue is recorded when earned and expenses are recorded when a liability is incurred. Plan member contributions are recognized in the period in which the contributions are due. Benefits are recognized when due and payable in accordance with the terms of the plan. Investments are reported at fair value or estimated fair value. Refer to Note 18 for additional information on the net pension liability.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Deferred Inflows of Resources

In addition to liabilities, the statement of net position includes a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to future periods. At that time, the activity will be recognized as an inflow of resources (or revenues). The Authority has included the deferred gain on refunding, deferred amounts on swap terminations and deferred capital contribution in this reporting category. Deferred gain on refunding results from the difference in the carrying value of refunded debt and its reacquisition price; these amounts are deferred and amortized over the shorter of the life of the refunded or refunding debt. The deferred amounts on swap terminations were assumed as part of the regional system lease agreements with the City. The amounts will be fully amortized for both funds by fiscal 2035. The deferred capital contribution relates to the previous year, which was recognized in the current year and is discussed under the Capital Contribution heading in the Statement of Revenues, Expenses and Changes in Net Position section below.

Net Position

Net position, which represents the difference between assets, deferred outflows of resources, liabilities and deferred inflows of resources, is reported in three components as follows:

Net Investment in Capital Assets - consists of capital assets, net of accumulated depreciation and reduced by the balance of outstanding related debt including the share of the regional system lease liability allocable to the net investment in capital assets acquisition value of the regional systems recorded under GASB 69.

Restricted – consists of amounts that are legally restricted by outside parties or by law through constitutional provisions or enabling legislation. The net position consists of restricted assets reduced by liabilities related to those assets.

Unrestricted – is the residual balance of net position after net investment in capital assets and restricted.

When both restricted and unrestricted resources are available for use, generally it is the Authority's policy to use restricted resources first and then unrestricted resources when they are needed.

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

Classification of Revenues and Expenses

The Authority classifies its revenues and expenses as either operating or nonoperating.

Operating revenues are those revenues generated from providing services in connection with the Authority's principal ongoing operations. The principal operating revenues of the Authority are wholesale charges for providing water and wastewater treatment. The local system charges are the charges to the City of Detroit under the Water and Sewer Services Agreement (WSSA), dated June 12, 2015. Wholesale customer charges are shown net of bad debt expense of \$2,928,444 for the Water Fund and \$2,963,838 for the Sewage Disposal Fund.

Operating expenses include the direct costs of operating the water and sewage disposal systems, centralized support, utilities, administrative expenses, depreciation on capital assets and amortization of intangible assets. The following items are shown as a reduction to operating expenses:

- The capital program allocation represents personnel costs that support the project delivery of the Capital Improvement Plan and have been capitalized.
- Intergovernmental reimbursements represent reimbursement of costs related to shared facilities and personnel which the Authority provides to DWSD through a shared services agreement or separate interlocal agreement. It also includes reimbursement of costs for contracted services that are billed to member partners under an intergovernmental agreement.

All revenue and expenses not meeting these definitions above are reported as nonoperating revenues and expenses.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Capital Adjustment

As part of the Authority's capital improvement program the Authority incurs costs to design capital improvement projects. Periodically, the actual construction project may not be completed due to changes in plans or environmental requirements. Once it has been determined that construction will not proceed related costs are charged to the capital adjustment operating expense, including any costs previously recorded in construction in progress. There were no capital adjustments for the fiscal year ending June 30, 2021.

<u>Taxes</u>

The Authority pays no direct federal, state or local taxes, except local taxes on excess property and federal Social Security and Medicare taxes.

Interest Income on Loan and Obligations Receivable

Interest income is the interest earned on the loan receivable and the contractual obligation receivable.

Amortization of Debt Related Items and Cost of Issuance

Bond premiums, discounts, and gains or losses on refunding are deferred and amortized over the life of the bonds. Bond premiums, discounts and GASB 69 debt value adjustment are amortized using the effective interest method. The deferred amounts on refunding are amortized using the straight-line method. Debt cost of issuance is expensed when incurred.

Legacy Pension Expense

GLWA is legally responsible for making substantial contributions to a legacy pension plan of another entity, see Note 18 for additional information on this Plan.

Centralized Services and Administrative Services

Certain costs incurred by the Authority are allocated between the Water and Sewage Disposal Funds. The allocations are based on an annual cost allocation analysis. The following table shows the allocation of these common costs for the year ended June 30, 2021:

Common Costs	Water % Allocation	Water Allocation	Sewer % Allocation	Sewer Allocation	Total Common Costs
Centralized services Administrative	42.0%	\$ 37,003,204	58.0%	\$ 51,125,617	\$ 88,128,821
services	49.8%	\$ 12,549,032	50.2%	\$ 12,667,792	\$ 25,216,824

Centralized services includes the following operating areas: planning services, systems control, facility operations, fleet operations, field service operations, energy research and innovation, information technology and security and integrity.

Administrative services includes the following operating areas: board of directors, chief executive officer, chief administrative and compliance officer, general counsel, public affairs, organizational development, and financial services.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Capital Contribution

The Great Lakes Water Authority (GLWA) and the Oakland-Macomb Interceptor Drain Drainage District (OMIDDD) signed a contract amendment that redefined the operation, maintenance, repair and improvement responsibilities of each entity regarding the Northeast Sewer Pump Station (NESPS), interceptor PCI-5 and the North Interceptor East Arm (NIEA). As part of this agreement, OMIDDD paid GLWA a one-time contribution in the amount of \$11,920,000 during the fiscal year ending June 30, 2020, in exchange for the elimination of future capital charges related to GLWA assets that the customer will maintain in the future. This amount generally reflects GLWA's determination of net book value of the assets as of the effective date. For the fiscal year ending June 30, 2020, \$5,960,000 of this amount was recognized and \$5,960,000 was deferred to the fiscal year ending June 30, 2021 for budgeted revenue requirements related to the fiscal year ending June 30, 2021.

Use of Estimates

The preparation of basic financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the basic financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Adoption of New Accounting Standards

GASB Statement No. 87, *Leases* is effective for years beginning after June 15, 2021. The Authority has implemented this statement early for the fiscal year ending June 30, 2021. This implementation did not have any effect on previous reporting periods as the lease recorded under this statement started during the current fiscal year.

GASB Statement No. 84, *Fiduciary Activities and* Statement No. 90, *Majority Equity Interests – an amendment of GASB Statement No. 14 and No. 61* became effective in the current fiscal year. Both of these statements were implemented during the current year with no effect on the financial statements as a result of implementation.

The Authority has also implemented GASB Statement No. 98, *The Annual Comprehensive Financial Report* early for the fiscal year ending June 30, 2021.

New Accounting Pronouncements to be Implemented in the Future

The following GASB pronouncements will be implemented in the future. The Authority has not completed its assessment of the future impact of the adoption of these statements, if any.

- Statement No. 91, *Conduit Debt Obligations* (effective for fiscal years beginning after December 15, 2021)
- Statement No.92, Omnibus 2020 (effective for fiscal years beginning after June 15, 2021)
- Statement 93, *Replacement of Interbank Offer Rates* (paragraph 11b is effective for fiscal years beginning after December 31, 2021, paragraphs 13 and 14 are effective for fiscal years beginning after June 15, 2021)
- Statement 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements* (effective for fiscal years beginning after June 15, 2022)
- Statement No. 96, *Subscription-Based Information Technology Arrangements* (effective for fiscal years beginning after June 15, 2022)
- Statement No. 97, Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans - an amendment of GASB Statements No. 14 and No.84, and a supersession of GASB Statement No. 32 (effective for fiscal years beginning after June 15, 2021)



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Reclassifications

Certain prior year amounts have been reclassified to conform to current year presentation.

NOTE 2 – BUDGETARY INFORMATION

The financial activity of the Authority is presented in two enterprise funds. While enterprise funds are not required under State statutes to adopt appropriated budgets, the Authority's Articles of Incorporation outlines a budget adoption process. Budget to actual schedules for revenues and expenses are presented in the Supplementary Information section of this report. This schedule is not required by GAAP or subject to audit procedures. It is presented strictly for informational purposes.

BUDGET PROCESS

GLWA adopts a biennial budget for the regional water and sewage disposal systems as required by its Articles of Incorporation. The revenue requirements budget is adopted separately for the water and sewerage disposal systems. It is the sum of: a) operation and maintenance expenses; b) amounts necessary to pay the principal of and interest on all bonds and to fund any reserves required by the Master Bond Ordinance; c) the lease payment, which shall be a common-to-all charge; d) GLWA's portion of the GRS net pension liability and the B&C obligation payable; e) the required deposit to the Water Residential Assistance Program (WRAP) Fund; f) the amounts needed to make the required deposits to the regional Extraordinary Repair and Replacement Reserve Fund and the regional Improvement and Extension Fund as defined in the Master Bond Ordinance; and g) the amount necessary to satisfy the coverage ratios required by the rate covenant in the Master Bond Ordinance.

As provided in the Regional System leases, through the fiscal year ending June 30, 2025, the water and sewage disposal systems are limited to annual increases in the regional revenue requirement of not more than 4%. This limitation shall not be applicable, however, if the regional revenue requirement must increase beyond the 4% assumption in order to satisfy the rate covenant or to pay the cost of improvements to the leased water and/or sewage disposal facilities that are required to be made by applicable laws.

In the Regional System leases, the City acknowledges that all local water and sewer system revenues received from customers in the City are the property of GLWA and will be deposited as received in the Receiving Fund as defined in the Master Bond Ordinance and applied as provided in the Bond Ordinance. As a result, the City agrees to provide the Authority with a budget for the local water and sewage disposal system as provided in the Water and Sewer Services Agreement.

Schedule of Charges Process

The GLWA Wholesale Customer Model Water Contract and GLWA Wholesale Customer Model Sewer Contract requires that GLWA provide wholesale customers with written notice of a proposed charge, meet to review the proposed charge, and the underlying data used to calculate the charge not less than 30 calendar days prior to a public hearing. Further, the contract requires that a public hearing be held no less than 120 days prior to the date that proposed charges take effect.

The Water and Sewer Services Agreement between GLWA and DWSD requires that GLWA provide the City with written notice of the proposed charge and the underlying data used to calculate the charge not less than 120 calendar days prior to the effective date of any new charge.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 3 – CASH DEPOSITS AND INVESTMENTS

Michigan Compiled Laws Section 129.91 (Public Act 20 of 1943, as amended) authorizes the Authority to make deposits and invest in the accounts of federally insured banks, credit unions, and savings and loan associations that have offices in Michigan. The law also allows investments outside the state of Michigan when fully insured. The Authority is allowed to invest in bonds, securities, and other direct obligations of the United States or any agency or instrumentality of the United States; repurchase agreements; bankers' acceptances of United States banks; commercial paper rated within the two highest classifications that matures not more than 270 days after the date of purchase; obligations of the State of Michigan or its political subdivisions that are rated as investment grade; and mutual funds composed of investment vehicles that are legal for direct investment by local units of government in Michigan.

The deposits and investments of the Authority at June 30, 2021 are reported in the basic financial statements as follows:

		Water Fund	D	Sewage isposal Fund		Total
Statement of Net Position						
Cash and cash equivalents	\$	162,766,427	\$	191,584,705		\$354,351,132
Restricted cash and cash equivalents		65,677,030		85,509,014		151,186,044
Restricted cash for the benefit of DWSD		3,144,400		2,919,797		6,064,197
Investments		190,541,958		132,388,013		322,929,971
Restricted investments		2,932,400		28,758,582		31,690,982
Noncurrent restricted cash and cash equivalent	s	2,519,127		2,876,374		5,395,501
Noncurrent restricted investments		8,651,762		29,882,148		38,533,910
Total	\$	436,233,104	\$	473,918,633	<u>\$</u>	910,151,737
Cash Deposits and Investments						
Bank deposits – checking and savings account	s\$	65,733,048	\$	45,722,248	\$	111,455,296
Money market accounts		168,373,936		237,167,642		405,541,578
Investments in securities		202,126,120		191,028,743		393,154,863
Total	\$	436,233,104	\$	473,918,633	\$	910,151,737

CUSTODIAL RISK OF BANK DEPOSITS

Deposits and money market accounts are exposed to custodial credit risk if they are not covered by depository insurance. At year-end, the carrying amount of the Authority's deposits and money market accounts was \$234,106,984 for the water fund and \$282,889,890 for the sewage disposal fund. The bank balance of the water fund deposits and money market accounts was \$238,929,703 of which \$211,532,590 was uninsured and uncollateralized. The bank balance of the sewage disposal fund deposits and money market accounts was \$282,889,890 of which \$282,639,890 was uninsured and uncollateralized.

In accordance with the Authority's investment policy and State law, all deposits are held in the Authority's name, and evidenced by a safekeeping receipt. Also, due to the dollar amounts of cash deposits and the limits of FDIC insurance, the Authority believes it is impractical to insure all bank deposits. As a result, the Authority evaluates each financial institution and assesses the level of risk of each institution; only those institutions with an acceptable estimated risk level are used as depositories.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 3 - CASH DEPOSITS AND INVESTMENTS (cont.)

INVESTMENTS

Following is a summary of the Authority's investments as of June 30, 2021:

	 Water Fund	Standard & Poors Rating	Weighted Maturity In Years
U.S. treasury notes U.S. government agencies Commercial paper	\$ 81,862,317 109,917,212 10,346,591	AA+ AA+ A1	1.46 1.23 0.42
Total	\$ 202,126,120		
	 Sewage Disposal Fund	Standard & Poors Rating	Weighted Maturity In Years
U.S. treasury notes U.S. government agencies Commercial paper	\$ 102,100,736 51,060,683 37,867,324	AA+ AA+ A1	1.60 1.29 0.26
Total	\$ 191,028,743		
	 Total	Standard & Poors Rating	Weighted Maturity In Years
U.S. treasury notes U.S. government agencies Commercial paper	\$ 183,963,053 160,977,895 48,213,915	AA+ AA+ A1	1.53 1.25 0.30
Total	\$ 393,154,863		

CUSTODIAL RISK OF INVESTMENTS

Investments are exposed to custodial credit risk if the securities are uninsured, unregistered or held by a counterparty or its agent but not in the government's name. In accordance with the Authority's investment policy, all investments are held in the name of the Authority and are evidenced by a safekeeping receipt confirmation, and thus not exposed to custodial credit risk.



INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 3 – CASH DEPOSITS AND INVESTMENTS (cont.)

CREDIT RISK

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Authority's investment policy and State law require that commercial paper be rated in the top two ratings by at least two nationally recognized statistical rating organizations.

As of June 30, 2021, all of the Authority's investments in securities of U.S. agencies were rated AA+ by Standard & Poor's and Aaa by Moody's. The Authority's investment in commercial paper was rated A1 by Standard and Poor's and P1 by Moody's. U.S Treasury notes are explicitly guaranteed by the U.S. government and not considered to have credit risk. The Authority's money market accounts were not rated.

CONCENTRATION OF CREDIT RISK

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. In order to manage its exposure risk, the Authority's investment policy requires diversification by security type to no more than 50% of the total investment portfolio.

At June 30, 2021, the Authority had greater than 5% of its total investment portfolio concentrated as follows:

Investment Type	Issuer	% of Portfolio
Water Fund		
U.S. government agencies	Federal National Mortgage Association	14.99%
U.S. government agencies	Federal Home Loan Bank	14.44
U.S. government agencies	Federal Home Loan Mortgage Company	19.79
Sewage Disposal Fund		
U.S. government agencies	Federal Home Loan Mortgage Company	10.10
U.S. government agencies	Federal National Mortgage Association	9.25
U.S. government agencies	Federal Home Loan Bank	7.38
Commercial paper	Collateralized Commercial Paper V	
	Company, LLC	7.42
Commercial paper	Sumitomo Mitsu Bank	5.17
Commercial paper	Royal Bank of Canada	5.08

INTEREST RATE RISK

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of investments. As a means of limiting its exposure to fair value losses due to rising interest rates, the Authority's investment policy limits the maximum maturity period to no more than five years, unless matched to a particular cash flow need. The Authority's investment policy further provides risk will be minimized by: matching investments with short and long-term cash flow requirements, and monitoring the maturity dates of individual securities and the weighted average maturity of the investment portfolio to ensure duration is commensurate with the cash flow requirements.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 3 – CASH DEPOSITS AND INVESTMENTS (cont.)

FAIR VALUE MEASUREMENTS

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

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

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

Level 3: Inputs are significant unobservable inputs.

	 Level 2
Water Fund Investments by fair value:	
U.S. treasury notes U.S. government agencies Commercial paper	\$ 81,862,317 109,917,212 10,346,591
Water Fund Total Investments	 202,126,120
Sewage Disposal Fund	
Investments by fair value: U.S. treasury notes	102,100,736
U.S. government agencies	51,060,683
Commercial paper	 37,867,324
Sewer Fund Total Investments	 191,028,743
Total Investments – Business-type activities	\$ 393,154,863
uthority has no Loval 1 or 3 inputs at Juna 30, 2021	

The Authority has no Level 1 or 3 inputs at June 30, 2021.

NOTE 4 – RESTRICTED ASSETS

Restricted assets, comprised of cash and investments, are available for debt service on revenue bonds and to provide funds for improvements, enlargements, extensions and construction. In accordance with the provisions of the Master Bond Ordinance and Regional System Leases, the Authority follows a sequential flow of funds in segregated accounts through which revenue receipts are deposited and are maintained at certain levels in satisfaction of all legal requirements.

INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 4 – RESTRICTED ASSETS (cont.)

The following schedules provide, in the order of the flow of funds per the Master Bond Ordinance, the assignment of Water and Sewage Disposal Funds cash and investments between restricted and unrestricted assets based on the source of the monies as of June 30, 2021.

	Funded from Funded from Revenue and Other Debt Issuance						
		Unrestricted	ven	Restricted	L	Restricted	Total
Water Fund							
Receiving fund	\$	60,370,963 *	\$	-	\$	-	\$ 60,370,963
Operations and maintenance		33,201,497		14,180,745 *	*	-	47,382,242
Operations and maintenance - pension		-		183,850		-	183,850
Senior lien debt service		-		22,250,292		-	22,250,292
Senior lien bond reserve		-		-		102,815,334	102,815,334
Second and junior lien debt service		-		31,635,226		-	31,635,226
Second and junior lien debt reserve		-		-		48,781,471	48,781,471
Pension obligation		-		359,316		-	359,316
Water residential assistance program							
(WRAP)		-		4,614,294		-	4,614,294
Budget stabilization				1,998,190		-	1,998,190
Extraordinary repair and replacement		27,525,996		-		-	27,525,996
Improvement and extension – regional		204,998,873		-		-	 204,998,873
Subtotal – Reserves Defined by Ordinance		326,097,329		75,221,913		151,596,805	552,916,047
Less: Funded by surety (noncash)		-		-		(147,038,399)	 (147,038,399)
Total – Reserves Defined by Ordinance (net							
of surety coverage)		326,097,329		75,221,913		4,558,406	405,877,648
Cash held for the benefit of DWSD		-		3,144,400		-	3,144,400
Construction fund		27,211,056				-	 27,211,056
Total Cash, Cash Equivalents and Investments Water Fund	\$	353,308,385	\$	78,366,313	\$	4,558,406	\$ 436,233,104

*Balance for two months required transfers

**Construction retainage and deposits

Surety coverage includes series specific policies; therefore, this represents the lesser of the maximum amount of the policy or amount of reserve requirement allocated to the specific series covered by such policy.



INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 4 - RESTRICTED ASSETS (cont.)

	Funded from Otl		Funded from Debt Issuance	
	Unrestricted	Restricted	Restricted	Total
Sewage Disposal Fund				
Receiving fund	\$ 104,424,762*	- \$	\$-	\$ 104,424,762
Operations and maintenance	33,863,665	10,225,135**	-	44,088,800
Operations and maintenance - pension	ı –	329,484	-	329,484
Senior lien debt service	-	41,652,249	-	41,652,249
Senior lien bond reserve	-	-	114,378,494	114,378,494
Second and junior lien debt service	-	61,558,618	-	61,558,618
Second and junior lien debt reserve	-	-	48,112,098	48,112,098
Pension obligation	-	502,110	-	502,110
Water residential assistance program				
(WRAP)	-	6,428,815	-	6,428,815
Budget stabilization	-	5,493,494	-	5,493,494
Extraordinary repair and				
replacement	44,013,365	-	-	44,013,365
Improvement and extension				
– regional	121,356,399	-	-	121,356,399
Subtotal – Reserves Defined by				<u>.</u>
Ordinance	303,658,191	126,189,905	162,490,592	592,338,688
Crananco	000,000,101	120,100,000	102,100,002	002,000,000
Less: Funded by surety (noncash)	-	-	(141,654,379)	(141,654,379)
Total – Reserves Defined by Ordinance			/	,
(net of surety coverage)	303,658,191	126,189,905	20,836,213	450,684,309
(net of safety severage)	000,000,101	120,100,000	20,000,210	400,004,000
Cash held for the benefit of DWSD	_	2,919,797	_	2,919,797
Construction funds	20,314,527	2,010,707	-	20,314,527
	20,011,021			20,011,021
Total Cash, Cash Equivalents and				
Investments Sewage Disposal Fund	323,972,718	129,109,702	20,836,213	473,918,633
investments cowage Disposari and	020,072,710	120,100,702	20,000,210	470,010,000
Total Cash, Cash Equivalents and				
Investments –Business-type Activities	\$677 281 103	\$ 207,476,015	\$ 25,394,619	\$ 910,151,737
Inteethonic Dubiness type Admites	<i>worr</i> ,201,100	φ 201, 410,010	Ψ 20,004,010	φ στο, τοτ, τοτ

*Balance for two months required transfers

**Construction retainage and deposits

Surety coverage includes series specific policies; therefore, this represents the lesser of the maximum amount of the policy or amount of reserve requirement allocated to the specific series covered by such policy.



INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 4 - RESTRICTED ASSETS (cont.)

A reconciliation of restricted assets to restricted net position is as follows:

						Total
		Water	Sewage			usiness-type
	Fund			sposal Fund		Activities
Restricted assets from schedule above:						
From revenue and other	\$	78,366,313	\$	129,109,702	\$	207,476,015
From debt issuance		4,558,406		20,836,213		25,394,619
Amounts payable to liabilities and debt		(56,621,482)		(52,661,349)		(107,282,831)
Restricted Net Position	<u>\$</u>	28,303,237	\$	97,284,566	\$	125,587,803
Restricted net position for:						
Debt service	\$	23,688,943	\$	90,855,751	\$	114,544,694
Payment assistance program		4,614,294	-	6,428,815		11,043,109
Total Restricted Net Position	\$	28,303,237	\$	97,284,566	\$	125,587,803
		, : = , =	<u> </u>	, , , ,		, - ,

The following summary reconciles the above cash and investment balances with the balances per the Statement of Net Position. The allocation of restricted balances to current and noncurrent categories is not intended to directly align with the funding source allocation included in the schedule.

	Unrestricted	RestrictedRestrictedCurrentNoncurrent		 Total
Water Fund				
Cash and cash equivalents	\$ 162,766,427	\$ 65,677,030	\$ 2,519,127	\$ 230,962,584
Cash held for the benefit of DWSD	-	3,144,400	-	3,144,400
Investments	190,541,958	2,932,400	8,651,762	 202,126,120
Total Water Fund	353,308,385	71,753,830	11,170,889	 436,233,104
Sewage Disposal Fund				
Cash and cash equivalents	191,584,705	85,509,014	2,876,374	279,970,093
Cash held for the benefit of DWSD	-	2,919,797	-	2,919,797
Investments	132,388,013	28,758,582	29,882,148	 191,028,743
Total Sewage Disposal Fund	323,972,718	117,187,393	32,758,522	 473,918,633
Total Business-type Activities	\$ 677,281,103	<u>\$ 188,941,223</u>	\$ 43,929,411	\$ 910,151,737



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 5 – RECEIVABLES

The following is a summary of the net receivables as of June 30, 2021:

,	Water Fund		Total		
\$	48,694,817	\$	59,552,759	\$	108,247,576
	30,066,884		24,320,796		54,387,680
	85,494		489,412		574,906
	78,847,195		84,362,967		163,210,162
	(11,562,519)		(39,321,754)		(50,884,273)
\$	67,284,676	\$	45,041,213	\$	112,325,889
		30,066,884 85,494 78,847,195 (11,562,519)	\$ 48,694,817 \$ 30,066,884 85,494 78,847,195 (11,562,519)	\$ 48,694,817 \$ 59,552,759 30,066,884 24,320,796 85,494 489,412 78,847,195 84,362,967 (11,562,519) (39,321,754)	Water Fund Disposal Fund \$ 48,694,817 \$ 59,552,759 \$ 30,066,884 24,320,796 \$ 85,494 489,412

NOTE 6 – DUE FROM OTHER GOVERNMENTS

Due from other governments in the statement of net position are as follows:

	Water Fund			Sewage sposal Fund
DWSD-Billed shared services DWSD-Unbilled shared services DWSD-Accrued interest on obligation receivable State of Michigan FEMA	\$	14,901,436 (3,922,099) 163,387 747,024	\$	606,376 - - 744,735
Total Due From Other Governments	\$	11,889,748	\$	1,351,111

NOTE 7 - DUE TO AND DUE FROM OTHER FUNDS

Interfund balances result from the time lag between the dates interfund goods and services are provided or reimbursable expenditures occur and the payment between funds are made. Interfund balances for the year ended June 30, 2021 consisted of the following:

	fro	Water Fund - Due om Sewage sposal Fund	Dis	Sewage posal Fund - from Water Fund	T	otal Due To
Water Fund - Due to Sewage Disposal Fund Sewage Disposal Fund - Due to Water Fund	\$	۔ 2,786,344	\$	162,368 -	\$	162,368 2,786,344
Total Due From	\$	2,786,344	\$	162,368	\$	2,948,712



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 8 – CONTRACTUAL OBLIGATION RECEIVABLE

As part of the regional system lease transaction, in which GLWA leased the regional water and sewage disposal system from the City of Detroit, all DWSD revenue bonds outstanding as of December 31, 2015, including those purchased by the Michigan Finance Authority under its state revolving loan program, were assumed by GLWA with the consent of bondholders. Total bonds assumed by GLWA totaled \$2,313,683,761 for the Water Fund and \$3,291,282,050 for the Sewage Disposal Fund.

Per the lease agreements, the WSSA and the MBO, the Detroit retail class continues to pay its commonto-all share of debt service revenue requirements and its allocated share of debt service revenue requirements associated with improvements to the local water and sewage disposal systems. Payments on the debt service incurred by GLWA on the outstanding revenue bonds assumed as of December 31, 2015 are to be allocated using an agreed-upon percentage of total debt service associated with bondfinanced local improvements over the life of such bonds, though the bonds themselves continue to be secured by the net revenue of GLWA, and the revenues of the Detroit retail class. The MOU dated June 27, 2018 defines an agreed upon allocation and amortization schedule. Any additional debt issued by GLWA on behalf of the local system is also included in the obligation receivable. DWSD is billed monthly for the debt requirements on a debt set-aside basis so the funds are available when the associated debt payment is due.

_	Beginning Balance	Increase	Decrease	Debt Forgiveness	Ending Balance	Due Within One Year
Water Fund						
Obligation Receivable Bifurcated debt S New money bonds State revolving funds	398,319,700 136,320,000 15,531,678	\$ 	\$ (14,478,800) (355,901)	\$ - \$ 	383,840,900 136,320,000 28,885,586	\$ 15,168,000
Total Obligation Receivable	550,171,378	15,741,109	(14,834,701)	(2,031,300)	549,046,486	15,820,056
Deferred amounts for: Unamortized premiums	20,391,068		(785,462)	<u> </u>	19,605,606	738,660
Total Water Fund	570,562,446	15,741,109	(15,620,163)	(2,031,300)	568,652,092	16,558,716
Sewage Disposal Fund						
Obligation Receivable Bifurcated debt New money bonds	323,833,400 80,225,000		(12,249,500) (1,415,000)		311,583,900 78,810,000	12,779,900 1,465,000
Total Obligation Receivable	404,058,400	-	(13,664,500)	-	390,393,900	14,244,900
Deferred amounts for: Unamortized premiums	9,338,553		(376,826)		8,961,727	392,284
Total Sewage Disposal Fund	413,396,953		(14,041,326)		399,355,627	14,637,184
Total Business-type Activities	983,959,399	<u>\$ 15,741,109</u>	\$ (29,661,489)	<u>\$ (2,031,300</u>) <u>\$</u>	968,007,719	\$ 31,195,900

Changes in obligation receivable for the year ended June 30, 2021 were as follows:



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 8 - CONTRACTUAL OBLIGATION RECEIVABLE (cont.)

The current obligation receivable payment schedule is as follows:

	Year Ended June 30		Principal	Interest		Total
Water Fund						
indice i difu	2022	\$	15,820,056 \$	25,722,698	\$	41,542,754
	2023	Ψ	17,055,800	24,988,406	Ψ	42,044,206
	2024		19,506,500	24,206,842		43,713,342
	2025		20,420,100	23,305,212		43,725,312
	2026		21,358,300	22,360,440		43,718,740
	2027 - 2031		122,579,900	96,004,298		218,584,198
	2032 - 2036		153,447,896	64,747,196		218,195,092
	2037 - 2041		84,475,900	30,405,004		114,880,904
	2042 - 2046		76,584,467	15,770,592		92,355,059
	2047 - 2050		17,797,567	1,704,427		19,501,994
				.,		
Total Water Fund		\$	549,046,486 \$	329,215,115	\$	878,261,601
Sewage Disp	osal Fund					
	2022	\$	14,244,900 \$	17,402,150	\$	31,647,050
	2023		14,863,300	16,790,150		31,653,450
	2024		15,500,600	16,151,650		31,652,250
	2025		16,177,900	15,469,850		31,647,750
	2026		16,891,400	14,758,100		31,649,500
	2027 - 2031		96,292,600	61,965,400		158,258,000
	2032 - 2036		119,425,500	38,825,000		158,250,500
	2037 - 2041		65,872,700	13,571,400		79,444,100
	2042 - 2046		21,120,000	5,772,250		26,892,250
	2047 - 2049		10,005,000	756,500		10,761,500
Total Sewage	Disposal Fund	\$	390,393,900 \$	201,462,450	\$	591,856,350
Total Business	s-type					
Activities		\$	939,440,386 \$	530,677,565	\$	1,470,117,951



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 9 – LOAN RECEIVABLE – DWSD

Under the terms of the WSSA and the 2018 MOU, if DWSD experiences a cumulative negative variance of more than two percent (2%) of the total budget for either local system (a budget shortfall) from its adopted budget, DWSD, as the agent of GLWA, shall, within thirty (30) days thereafter, schedule a meeting of the Reconciliation Committee to discuss a remedy for the shortfall.

In accordance with the 2018 MOU, budget shortfalls not cured by the end of the fiscal year following the year in which they arise shall be repaid in full, in installments, over a period not to exceed the next three fiscal years, plus a surcharge calculated as provided below. The surcharge factor on the portion of the budget shortfall for the Sewage Disposal Fund, which remains unpaid, shall be based on the three-year U.S. Treasury note rate plus 150 basis points. The combined 2016 and 2017 budget shortfall was paid off during the year. The 2018 budget shortfall had a remaining balance of \$8,441,496. The surcharge factor for the combined 2016 and 2017 budget shortfall was paid off, respectively.

The following is the budget shortfall loan receivable activity for the year ended June 30, 2021:

		Beginning Balance	Increase		Decrease	Ending Balance)ue Within One Year
Sewage Disposal Fund								
2017 DWSD loan receivable	\$	10,171,496 \$	i	- \$	(10,171,496) \$		- \$	-
2018 DWSD loan receivable		16,331,513			(8,034,935)	8,296,5	78	8,296,578
Total DWSD Loan Receivable	<u>\$</u>	26,503,009 \$		<u>- \$</u>	<u>(18,206,431)</u>	8,296,5	<u>78 </u> \$	8,296,578

The budget shortfall loan receivable to be paid by DWSD payment schedule is as follows:

	Year Ended June 30	Principal	Interest	Total
Sewage Disposal Fund			 	
2018 DWSD Loan Receivable	2022	\$ 8,296,578	\$ 144,918	\$ 8,441,496



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 10 - CAPITAL ASSETS

Capital assets activity for the year ended June 30, 2021 was as follows:

	Beginning Balance	Additions	Disposals	Transfers	Ending Balance
Water Fund					
Nondepreciable capital assets Land Easements Construction in progress	\$ 34,166,736 258,632,397 126,197,521	\$ 1,000 _ 	\$ - - -	\$- 357,808 (51,179,102)	\$ 34,167,736 258,990,205 204,853,029
Total Nondepreciable Assets	418,996,654	129,835,610		(50,821,294)	498,010,970
Depreciated capital assets Site improvements Buildings and structures Infrastructure Machinery and equipment Vehicles Leasehold improvements	83,676,052 584,306,009 654,216,242 681,905,655 3,217,111 8,061,657	166,940 4,890,652 1,929,580 71,196	- - (717,244) (77,179) -	378,128 7,874,003 13,900,717 28,394,174 - 274,272	84,054,180 592,346,952 668,116,959 714,473,237 5,069,512 8,407,125
Total Depreciable Assets	2,015,382,726	7,058,368	(794,423)	50,821,294	2,072,467,965
Less: Accumulated depreciation Site improvements Buildings and structures Infrastructure Machinery and equipment Vehicles Leasehold improvements	(39,924,460) (145,619,970) (170,788,435) (267,221,864) (1,634,806) (63,718)	(7,681,207) (26,041,140) (38,594,598) (50,126,065) (281,331) (547,200)	- - 534,302 76,614 -	- - - - -	(47,605,667) (171,661,110) (209,383,033) (316,813,627) (1,839,523) (610,918)
Total Accumulated Depreciation	(625,253,253)	(123,271,541)	610,916		(747,913,878)
Total Depreciated Capital Assets, Net	1,390,129,473	(116,213,173)	(183,507)	50,821,294	1,324,554,087
Intangible asset – raw water rights Less: Accumulated amortization Total Intangible Assets, Net	106,999,919 (9,213,882) 97,786,037	- (3,566,664) (3,566,664)	- 	- 	106,999,919 (12,780,546) 94,219,373
Water Fund Net Capital Assets	\$1,906,912,164	\$ 10,055,773	<u>\$ (183,507)</u>	<u>\$ -</u>	<u>\$1,916,784,430</u>

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GREAT LAKES WATER AUTHORITY

INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 10 - CAPITAL ASSETS (cont.)

	Beginning Balance	Additions	Disposals	Transfers	Ending Balance
Sewage Disposal Fund					
Nondepreciable capital assets	* 07 00 4 000	<u>^</u>	^	* 500.045	• • • • • • • • • • • • • • • • • • •
Land Easements	\$ 27,634,628 96,211,323	\$-	\$-	\$ 508,215	\$ 28,142,843 96,211,323
Construction in progress	177,022,885	81,508,838	-	(67,411,438)	191,120,285
Total Nondepreciable Assets	300,868,836	81,508,838		(66,903,223)	315,474,451
Depreciated capital assets					
Site improvements	51,282,571	22,527	(74,150)	429,557	51,660,505
Buildings and structures	1,156,168,738	250,607	-	80,463	1,156,499,808
Infrastructure	619,049,149	-	-	770,114	619,819,263
Machinery and equipment	1,242,297,233	4,066,825	(696,226)	65,623,089	1,311,290,921
Vehicles	3,621,907	2,462,495	(130,709)	-	5,953,693
Leasehold improvements	3,066,052	71,196			3,137,248
Total Depreciable Assets	3,075,485,650	6,873,650	(901,085)	66,903,223	3,148,361,438
Less: Accumulated depreciation					
Site improvements	(25,559,151)	(3,734,436)	-	-	(29,293,587)
Buildings and structures	(216,789,376)	(37,777,025)	-	-	(254,566,401)
Infrastructure	(61,873,712)	(13,734,033)	-	-	(75,607,745)
Machinery and equipment	(470,331,704)	(94,813,988)	320,585	-	(564,825,107)
Vehicles	(1,726,918)	(510,540)	130,705	-	(2,106,753)
Leasehold improvements	(287,142)	(202,043)			(489,185)
Total Accumulated Depreciation	(776,568,003)	(150,772,065)	451,290		(926,888,778)
Total Depreciated Capital Assets					
Net	2,298,917,647	(143,898,415)	(449,795)	66,903,223	2,221,472,660
Intangible asset – right to use		4 5 4 2 6 0 7			4 5 4 2 6 0 7
asset Less: Accumulated amortization	-	4,543,607 (109,926)	-	-	4,543,607 (109,926)
Total Intangible Assets, Net		4,433,681			4,433,681
Sewage Disposal Fund Net					
Capital Assets	\$2,599,786,483	<u>\$ (57,955,896)</u>	\$ (449,795)	<u>\$</u>	<u>\$ 2,541,380,792</u>
Business-type Activities Capital					
Assets, Net	\$4,506,698,647	\$ (47,900,123)	\$ (633,302)	<u>\$</u>	\$ 4,458.165,222

ASSET IMPAIRMENT

Capital assets are evaluated annually to determine if any asset impairments exist, defined as a significant, unexpected decline in the service utility of a capital asset. There were no recorded impairments for the Authority for the year ended June 30, 2021.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 10 - CAPITAL ASSETS (cont.)

RAW WATER RIGHTS ASSET

Effective December 1, 2017, the Authority, the City of Flint, Karegnondi Water Authority (KWA), Genesee County Drain Commission (GCDC) and State of Michigan entered into a long-term partnership agreement to satisfy a number of critical water service needs across the region. Key provisions of a master agreement includes: 1) a 30-year water service contract with the City of Flint that establishes the Authority as the long-term water source for the City of Flint and credits the City of Flint for its debt service payment obligations on existing KWA bonds for the building of its raw water intake and supply line; 2) a license to the Authority of the 72-inch line serving the City of Flint; and 3) a 30-year contract for reciprocal, emergency water services between the Authority and GCDC.

The 30-year water service contract with the City of Flint includes a license to raw water rights on 17.46 MGD of the 18 MGD purchased by Flint as part of KWA bond obligation. These license rights constitute an intangible asset under governmental accounting standards. Therefore, the Authority has recorded an intangible asset and purchase obligation liability of approximately \$107 million associated with this agreement in the accompanying financial statements. The Authority is amortizing the intangible asset over 30 years. As the City of Flint satisfies its monthly bond payment obligations to KWA, the Authority credits Flint's water invoice for that payment and reduces the Authority's purchase obligation. This process will continue each year over the 30-year life of the asset.

NOTE 11 – OTHER ACCRUED LIABILITIES

As described in Note 1, other accrued liabilities in the statement of net position are as follows:

	Water Fund				
Cash held for the benefit of DWSD Advanced insurance proceeds Customer deposit	\$	3,144,400 - 3,814,156	\$	2,919,797 1,695,458 -	
Total Other Accrued Liabilities	\$	6,958,556	\$	4,615,255	



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 12 – Due to Other Governments

Due to other governments, which consists entirely of amounts due to the DWSD, in the statement of net position is as follows:

	Wa Fu			Sewage Disposal Fund		
Shared services Green infrastructure	\$	15,693,993 	\$	- 3,750,000		
Total Due to Other Governments	\$	15,693,993	\$	3,750,000		

NOTE 13 - LONG-TERM DEBT

Changes in long-term debt for the year ended June 30, 2021 were as follows:

	Beginning Balance	Increase	Decrease	Debt Forgiveness	Ending Balance	Due Within One Year
Water Fund						
Bonds and Loans Revenue bonds Notes from direct borrowings and direct placements -	\$2,261,935,000	\$-	\$ (69,425,000)	• \$ -	\$2,192,510,000	\$ 14,390,000
State revolving loan	39,318,264	35,927,637	(1,955,000)	(2,031,300)	71,259,601	2,998,056
Total Bonds and Loans	2,301,253,264	35,927,637	(71,380,000)	(2,031,300)	2,263,769,601	17,388,056
Deferred amounts for: Unamortized premiums Unamortized discounts	200,499,211 (8,963,123)	-	(16,779,986) 1,366,371)	183,719,225 (7,596,752)	16,248,084 (1,135,690)
Total Bonds and Loans, Net	2,492,789,352	35,927,637	(86,793,615)	(2,031,300)	2,439,892,074	32,500,450
Other Debt Raw water rights obligation Obligation payable	100,720,122 16,921,526		(2,624,820) (184,991)		98,095,302 16,736,535	2,734,246 194,242
Total Water Fund Debt	\$2,610,431,000	\$ 35,927,637	\$ (89,603,426)	<u>\$ (2,031,300</u>)	\$2,554,723,911	\$ 35,428,938



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

	Beginning Balance	Increase	Decrease	Debt Forgiveness	Ending Balance	Due Within One Year
Sewage Disposal Fund Bonds and Loans Revenue bonds Capital appreciation bonds Notes from direct borrowings and direct	\$ 2,578,220,000 11,335,000	\$ -	\$ (62,765,000) (5,660,000)	\$	\$ 2,515,455,000 5,675,000	\$ 31,545,000 5,675,000
placements-State revolving loan	449,666,531	17,261,319	(50,160,000)		416,767,850	46,815,000
Total Bonds and Loans	3,039,221,531	17,261,319	(118,585,000)	-	2,937,897,850	84,035,000
Discount on capital appreciation bonds	(667,440)	-	496,509	-	(170,931)	(170,931)
Deferred amounts for: Unamortized premiums Unamortized discounts	143,614,085 (78,045,717)	-	(12,935,379) <u>9.554.410</u>		130,678,706 (68,491,307)	12,720,139 (9,174,925)
Total Bonds and Loans, Net	3,104,122,459	17,261,319	(121,469,460)	-	2,999,914,318	87,409,283
Other Debt Obligation payable	38,061,886		(416,106)		37,645,780	436,911
Total Sewage Disposal Fund Debt	3,142,184,345	17,261,319	(121,885,566)		3,037,560,098	87,846,194
Total Business-type Activities	<u>\$ 5,752,615,345</u>	<u>\$ 53,188,956</u>	<u>\$ (211,488,992)</u>	<u>\$ (2,031,300</u>)	\$ 5,592,284,009	<u>\$ 123,275,132</u>



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

As of June 30, 2021, aggregate debt service requirements of the Authority's bonds and loans (fixed and variable-rate) instruments were as follows. These amounts assume that current interest rates on variable-rate bonds will remain the same for their respective terms. As these rates vary, interest payments on variable-rate bonds will vary.

		Bonds			N	Notes from Direct Borrowings and Direct Placements				
	Year Ended June 30	Principal		Interest		Principal		Interest		Total
Water Fund										
	2022 2023 2024 2025 2026 2027-2031 2032-2036 2037-2041 2042-2046	\$ 14,390,000 69,395,000 76,930,000 82,590,000 86,340,000 500,015,000 613,885,000 389,735,000 282,770,000	·	85,258,042 100,051,172 96,484,833 92,746,039 88,879,460 376,763,776 239,487,152 116,376,037 53,041,549	\$	2,998,056 4,793,700 5,260,000 5,192,665 5,100,000 20,063,761 14,767,059 7,064,051 4,215,667	\$	1,485,190 1,432,497 1,327,848 1,219,158 1,111,932 4,194,249 2,278,230 1,143,042 494,999	\$	104,131,288 175,672,369 180,002,681 181,747,862 181,431,392 901,036,786 870,417,441 514,318,130 340,522,215
	2047-2050	76,460,000		3,558,750		1,804,642		68,019		81,891,411
Total Water Fund	ł	2,192,510,000		1,252,646,810		71,259,601		14,755,164		3,531,171,575
Sewage Dispos	al Fund									
	2022 2023 2024 2025 2026 2027 - 2031 2032 - 2036 2037 - 2041 2042 - 2046 2047 - 2049	37,220,000 79,830,000 83,475,000 98,650,000 101,895,000 637,360,000 797,290,000 554,175,000 116,585,000 14,650,000		80,797,355 97,276,036 93,541,417 89,406,369 84,765,356 354,423,511 217,545,887 61,449,050 13,190,861 1,122,750		46,815,000 47,804,430 40,225,000 41,125,870 27,200,072 114,924,703 73,376,782 23,215,993 2,080,000		9,116,713 8,024,829 7,001,925 6,086,982 5,290,838 18,520,878 8,083,012 1,257,263 41,800		173,949,068 232,935,295 224,243,342 235,269,221 219,151,266 1,125,229,092 1,096,295,681 640,097,306 131,897,661 15,772,750
Total Sewage Di	sposal Fund	2,521,130,000	_	1,093,518,592	_	416,767,850		63,424,240		4,094,840,682
Total Business-ty	vpe Activities	<u>\$ 4,713,640,000</u>	\$	2,346,165,402	\$	488,027,451	\$	78,179,404	\$	7,626,012,257

For bonds issued through the Michigan Finance Authority (MFA) in 2014 and 2015, the Authority is required to make payment on these obligations to the MFA depository account five business days prior to the actual due date of the bond principal and interest payments. Therefore, the payments for principal and interest due on July 1, 2021 are not included in the debt service requirements amounts above as they were paid on June 24, 2021.



INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

REVENUE AND CAPITAL APPRECIATION BONDS PAYABLE

Net revenues of the Authority are pledged to repayment of bonds; following are the revenue bonds payable at June 30, 2021:

	_ .			•••	Outstanding	
	Bond	Original Issue	Range of	Maturity	Ending	
lssue	Date	Amount	Interest Rates	Dates	 Balance	Callable at Par
Water Fund						
Series 2003A	1/30/03	\$ 234,805,000	5.00%	7/01/34	\$ 100,000	\$100,000
Series 2003B	1/30/03	172,945,000	5.00%	7/01/34	100,000	100,000
Series 2005B	5/14/08	194,900,000	5.25%	7/01/35	100,000	100,000
Series 2006A	8/16/06	280,000,000	5.00%	7/01/34	100,000	100,000
Series 2006B	4/01/09	120,000,000	6.25%	7/01/36	100,000	100,000
Series 2011B	12/22/11	17,195,000	5.00%	7/01/21	575,000	-
Series 2011C	12/22/11	103,890,000	5.00%	7/01/21	1,020,000	-
Series 2014D-1	9/04/14	206,540,000	5.00%	7/01/22-37	112,450,000	44,190,000
Series 2014D-2	9/04/14	188,455,000	5.00%	7/01/23-28	188,455,000	136,925,000
Series 2014D-4	9/04/14	307,645,000	5.00%	7/01/29-34	209,360,000	209,360,000
Series 2014D-6	9/04/14	65,425,000	5.00%	7/01/22-36	51,570,000	43,690,000
Series 2015D-1	12/15/15	89,430,000	5.00%	7/01/22-35	75,200,000	69,275,000
Series 2015D-2	12/15/15	37,235,000	5.00%	7/01/34	37,235,000	37,235,000
Series 2016A	10/27/16	88,000,000	5.00%	7/01/21-46	88,000,000	87,970,000
Series 2016B	10/27/16	163,830,000	5.00%	7/01/21-46	163,830,000	163,800,000
Series 2016C	10/27/16	443,930,000	5.00-5.25%	7/01/22-35	443,930,000	367,685,000
Series 2016D	10/27/16	222,045,000	4.00-5.00%	7/01/24-36	222,045,000	217,380,000
Series 2018A	10/3/18	155,595,000	5.00%	7/01/21-29	135,245,000	-
Series 2020A	5/12/20	42,445,000	5.00%	7/1/24-49	42,445,000	35,685,000
Series 2020B	5/12/20	43,135,000	5.00%	7/1/24-49	43,135,000	36,265,000
Series 2020C**	5/12/20	377,515,000	1.684-3.473%	7/1/22-41	 377,515,000	317,530,000

Total Water Fund Revenue Bonds Payable

\$ 2,192,510,000



INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

REVENUE AND CAPITAL APPRECIATION BONDS PAYABLE (cont.)

Issue	Bond Date	Original Issue Amount	Range of Interest Rates	Maturity Dates	Outstanding Ending Balance	Callable at Par
Sewage Disposal Fu	nd					
Series 1999A***	12/01/99	\$ 33,510,118	-	7/01/21	\$ 5,675,000	\$-
Series 2001B	9/15/01	110,550,000	5.50%	7/01/23-29	78,895,000	-
Series 2003B	6/17/09	150,000,000	7.50%	7/01/33	100,000	100,000
Series 2004A	2/12/04	101,435,000	5.25%	7/01/21-24	14,050,000	-
Series 2005A	3/17/05	273,355,000	4.50%	7/01/35	100,000	100,000
Series 2005B	3/17/05	40,215,000	5.50%	7/01/21-22	17,115,000	-
Series 2005C	4/05/05	63,160,000	5.00%	7/01/25	100,000	100,000
Series 2006B	8/10/06	250,000,000	5.00%	7/01/36	100,000	100,000
Series 2006D	12/14/06	370,000,000	Variable(*)	7/01/26-32	239,475,000	239,475,000
Series 2012A	6/26/12	659,780,000	5.00%	7/01/21-23	41,525,000	17,985,000
Series 2014C-1	9/04/14	123,220,000	5.00%	7/01/22	5,000	-
Series 2014C-2	9/04/14	27,470,000	5.00%	7/01/22	5,000	-
Series 2014C-3	9/04/14	446,170,000	5.00%	7/01/22-33	420,745,000	303,570.000
Series 2014C-6	9/04/14	143,880,000	5.00%	7/01/32-33	88,900,000	88,900.000
Series 2014C-7	9/04/14	76,715,000	5.00%	7/01/22-36	55,210,000	44,065,000
Series 2015C	12/15/15	197,660,000	5.00%	7/01/26-35	197,160,000	197,160,000
Series 2016B	10/27/16	126,105,000	5.00%	7/01/24-34	126,105,000	111,660,000
Series 2016C	10/27/16	295,190,000	4.00-5.00%	7/01/27-36	295,190,000	295,190,000
Series 2018A	10/03/18	81,595,000	4.00-5.00%	7/1/21-48	80,225,000	67,040,000
Series 2018B	10/03/18	131,690,000	5.00%	7/1/24-49	131,690,000	-
Series 2018C	10/03/18	44,180,000	3.249-3.613%	7/1/21-24	41,305,000	-
Series 2020A**	6/16/20	594,930,000	1.503-3.506%	7/01/23-44	594,930,000	108,540,000
Series 2020B**	6/16/20	92,525,000	1.442-3.606%	7/1/21-44	92,525,000	15,325,000
Total Sewage Disposa Capital Appreciation	Bonds Payal				2,521,130,000	

Total Business-type Activities

\$ 4,713,640,000

* Interest rates are reset guarterly based upon a formula specified in the bond using the three-month LIBOR rate.

** Taxable bond

*** Bonds are capital appreciation bonds. The outstanding balance represents the discounted present value.

Refunded Debt – Water Fund

In prior years, the Authority's Water Fund defeased certain bonds by placing the proceeds of new bonds in and irrevocable trusts for the purpose of generating resources for all future debt service payments on the refunded debt. As a result, the refunded bonds are considered to be defeased and the trust fund assets and related liabilities have been removed from the statement of net position. At June 30, 2021, the balance of the bonds considered to be defeased is \$366,025,000. These defeased bonds include the following revenue bonds: \$289,605,000 Series 2011A, \$2,295,000 Series 2011B and \$74,125,000 of Series 2011C. As a result, the refunded bonds are considered to be defeased and the trust fund assets and related liabilities have been removed from the statement of net position. These bonds were called July 1, 2021.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

REVENUE AND CAPITAL APPRECIATION BONDS PAYABLE (cont.)

Refunded Debt - Sewage Disposal Fund

In prior years, the Authority's Sewage Disposal Fund defeased certain bonds by placing the proceeds of new bonds in irrevocable trusts for the purpose of generating resources for all future debt service payments on the refunded debt. As a result, the refunded bonds are considered to be defeased and the trust fund assets and related liabilities have been removed from the statement of net position. At June 30, 2021, the balance of the bonds considered to be defeased is \$657,245,000. These defeased bonds include the following revenue bonds: \$419,810,000 Series 2012A (call date 7/1/22), \$123,200,000 Series 2014C-1 (call date 7/1/22), \$27,450,000 2014C-2 (call date 7/1/22), \$31,785,000 Series 2005A (call date 7/1/21) and \$55,000,000 Series 2006B (call date 7/1/21) As a result, the refunded bonds are considered to be defeased and the trust fund assets and related liabilities have been removed from the statement of net position.

STATE REVOLVING LOANS PAYABLE

The Authority participates in direct borrowings through the State of Michigan Drinking Water Revolving fund (DWRF) to finance qualified water supply system projects and the Clean Water Revolving Fund (CWRF) to finance qualified sewage disposal system projects. As GLWA draws additional amounts, the outstanding principal amounts of such loans will correspondingly increase. All loans are callable under terms specified in the loan agreements.

The Authority's Water Fund received direct borrowing loans from the State of Michigan Revolving Loan Fund totaling \$35,927,637 of which \$2,031,300 has been forgiven, and the Sewage Disposal Fund received \$17,261,319 during the year ended June 30, 2021. The water loans forgiven and \$15,741,108 of the proceeds of the Water Fund loans were a pass through to DWSD, the subrecipient of the loans. The remaining proceeds of the Water Fund loans were used to pay costs of acquiring, constructing extensions, and making certain repairs and improvements to the regional water system. The proceeds of the Sewage Disposal Fund loans were used to pay costs of acquiring extensions, and making certain repairs and improvements to the regional system. At June 30, 2021, \$68,979,958 for the Water Fund and \$34,051,648 for the Sewage Disposal Fund was authorized and unissued. Of the authorized and unissued \$30,279,237 for the Water Fund and \$4,040,000 of the Sewage Disposal Fund are for pass through loans to DWSD.

Net revenues of the Authority are pledged for repayment of the loans.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

STATE REVOLVING LOANS PAYABLE (cont.)

The following is a schedule of the state revolving loans payable at June 30, 2021:

Issue	Bond Date	Amount Issued	Range of Interest Rates	Maturity Dates	utstanding Ending Balance
Water Fund					
Series 2005 SRF-1	9/22/05	\$ 13,805,164	2.125%	10/01/21-26	\$ 4,605,164
Series 2005 SRF-2	9/22/05	8,891,730	2.125%	10/01/21-26	2,906,730
Series 2006 SRF-1	9/21/06	5,180,926	2.125%	10/01/21-26	1,715,926
Series 2008 SRF-1	9/29/08	2,590,941	2.50%	10/01/21-28	845,941
Series 2016 SRF-1	9/16/16	8,273,168	2.50%	4/01/22-48	7,663,168
Series 2016 SRF-2	9/16/16	3,393,543	2.50%	4/01/22-48	3,138,543
Series 2017 SRF-1	6/23/17	5,807,931	2.50%	10/1/21-48	5,502,931
Series 2019 SRF-1	6/7/19	8,330,000	2.00%	10/1/21-39	7,764,051
Series 2019 SRF-2	8/30/19	29,950,000	2.00%	4/1/23-34	15,778,733
Series 2019 SRF-3	8/30/19	11,788,056	2.00%	10/1/21-42	7,683,723
Series 2020 SRF-1	7/31/20	20,538,700	2.00%	4/1/23-36	7,718,196
Series 2020 SRF-2	8/28/20	9,000,000	2.00%	10/1/23-24	567,665
Series 2020 SRF-3	8/28/20	8,960,000	2.00%	10/1/22-34	5,368,830
Series 2020 SRF-4	9/30/20	12,153,050	2.00%	-	-
Series 2021 SRF-1	6/21/21	11,940,000	1.875%	-	 _
Total Water Fund State R	Revolving Loa	ans Payable			 71,259,601



INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

STATE REVOLVING LOANS PAYABLE (cont.)

Issue	Bond Date	Amount Issued	Range of Interest Rates	Maturity Dates	Outstanding Ending Balance
Sewage Disposal Fund					
Series 1999 SRF-2	9/30/99	46,000,000	2.50%	10/01/21-22	5,700,000
Series 2000 SRF-1	3/30/00	44,197,995	2.50%	10/01/21-22	5,297,995
Series 2000 SRF-2	9/28/00	64,401,066	2.50%	10/01/21-22	7,941,066
Series 2000 SRF-1	6/28/01	82,200,000	2.50%	10/01/21-22	19,880,000
Series 2001-SRF-2	12/20/01	59,850,000	2.50%	10/01/21-24	14,475,000
Series 2002 SRF-1	6/27/02	18,985,000	2.50%	4/01/22-23	2,350,000
Series 2002 SRF-2	6/27/02	1,545,369	2.50%	4/01/22-23	190,369
Series 2002 SRF-3	12/19/02	31.549.466	2.50%	10/01/21-24	7,024,466
Series 2003 SRF-1	6/26/03	48,520,000	2.50%	10/01/21-25	14,490,000
Series 2003 SRF-2	9/25/03	25,055,370	2.50%	4/01/22-25	6,015,370
Series 2004 SRF-1	6/24/04	2,910,000	2.125%	10/01/21-24	685,000
Series 2004 SRF-2	6/24/04	18,353,459	2.125%	4/01/22-25	4,303,459
Series 2004 SRF-3	6/24/04	12,722,575	2.125%	4/01/22-25	2,972,575
Series 2007 SRF-1	9/20/07	167,540,598	1.625%	10/01/21-29	82,115,598
Series 2009 SRF-1	4/17/09	13,970,062	2.50%	4/01/22-30	6,915,062
Series 2010 SRF-1	1/22/10	4,214,763	2.50%	4/01/22-31	2,325,763
Series 2012 SRF-1	8/30/12	14,950,000	2.50%	10/01/21-34	11,215,000
Series 2015A SRF	3/20/15	79,500,000	2.50%	4/01/22-36	63,145,000
Series 2015B SRF	3/20/15	27,175,304	2.50%	10/01/21-35	21,185,304
Series 2015D SRF	12/11/15	15,321,478	2.50%	10/01/21-35	11,716,478
Series 2016 SAW-1	5/25/16	10,000,000	2.50%	10/01/21-38	9,210,000
Series 2016 SRF-1	9/16/16	15,463,628	2.50%	4/01/22-38	13,333,628
Series 2016 SRF-2	9/16/16	48,315,683	2.50%	4/01/22-39	44,245,683
Series 2017 SRF-1	6/23/17	33,566,682	2.50%	10/01/21-38	31,246,682
Series 2018 SRF-2	9/14/18	17,510,000	2.00%	10/01/23-42	17,510,000
Series 2020 SRF-1	3/27/20	28,350,000	2.00%	10/1/23-44	9,728,280
Series 2020 SRF-2	9/30/20	3,232,000	2.00%	-	-
Series 2021 SRF-1	3/26/21	12,940,000	1.875%	10/1/23-25	1,550,072
Total Sewage Disposal Fu	ind State Re	volving Loans			
Payable					416,767,850
•					<u> </u>
Total Rusiness-type Activi	tipe				¢ 188 027 151

Total Business-type Activities

\$ 488,027,451



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

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, 2021 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. 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, 2021:

		Water Fund	 Sewage Disposal Fund
Remaining principal and interest requirement	\$	3,531,171,575	\$ 4,094,840,682
Principal and interest funding requirement for the year ending June 30, 2021 (computed consistent with rate covenant basis for rate determination purposes. Not applicable for purpose of additional bond test)	\$	179,214,379	\$ 230,162,876
Pledged revenue for the year ending June 30, 2021	<mark>\$</mark>	247,783,639	\$ 312,386,395
Pledged revenue collected as a percentage of funding requirement		<mark>138%</mark>	<mark>136%</mark>



INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

DEBT RATINGS

In March 2020, Standard & Poor's Global Ratings Services affirmed the ratings on the water system senior lien debt of AA- and the water system second lien debt of A+ and assigned a stable outlook. It also upgraded the ratings on the sewage disposal system senior lien debt by one notch to AA- and the sewage disposal system second lien debt by one notch to A+. Both were assigned a stable outlook. Moody's Investor Services upgraded the ratings on the water and sewage disposal system senior lien debt by one notch to A1 and second lien debt by one notch to A2. The ratings outlook for both remained stable. Fitch upgraded the ratings on the water system and sewage disposal system senior lien debt by one notch to A4 and second lien debt by one notch to A5. The ratings outlook for both remained stable. Fitch upgraded the ratings on the water system and sewage disposal system senior lien debt by one notch to A4 and second lien debt by one notch to A5. The ratings outlook for both remained stable. Fitch upgraded the ratings on the water system and sewage disposal system senior lien debt by one notch to A4 and second lien debt by one notch to A5. The ratings outlook for both remained stable. Fitch upgraded the ratings on the water system and sewage disposal system senior lien debt by one notch to A4 and second lien debt by one notch to A5. Both with a stable outlook.

The Authority was asked by the State to seek a rating for the junior lien debt, as this is the debt category of most of the state revolving fund bonds. In November 2018, S&P Global Ratings assigned an A+ rating to the Authority's junior lien water system SRF bonds and an A rating to the Authority's junior lien sewage disposal system SRF bonds. In March 2020, the junior lien sewage disposal system SRF bonds were upgraded to A+.

RAW WATER RIGHTS OBLIGATION

An obligation has been recorded related to the license of the raw water rights that were part of the 30-year service contract with the City of Flint. This obligation represents the future credits to the City of Flint's water bills as the City of Flint satisfies its monthly bond payment obligations to KWA. See related footnote for the raw water rights intangible asset (Note 10).

The future credits to be issued are detailed below:

	Year Ended			
	June 30	 Principal	 Interest	 Total
Water Fund				
	2022	\$ 2,734,246	\$ 3,919,206	\$ 6,653,452
	2023	2,845,282	3,806,495	6,651,777
	2024	2,963,619	3,689,208	6,652,827
	2025	3,085,994	3,567,008	6,653,002
	2026	3,212,750	3,439,803	6,652,553
	2027 - 2031	18,161,001	15,099,718	33,260,719
	2032 – 2036	22,226,263	11,034,794	33,261,057
	2037 - 2041	27,203,739	6,059,461	33,263,200
	2042 - 2046	 15,662,408	 989,106	 16,651,514
Total Water Fund		\$ 98,095,302	\$ 51,604,799	\$ 149,700,101



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

OBLIGATION PAYABLE – CITY OF DETROIT 2014 FINANCIAL RECOVERY BONDS

The Financial Recovery Bonds, Series 2014-B are federally taxable. The Series 2014-B bonds have two components: B(1) which has a 4.0 percent per annum interest rate and B(2) which has a variable interest rate until the maturity date of April 1, 2044. The bonds were delivered to classes of creditors in satisfaction of: (1) Class 12 OPEB claims the bonds were distributed to the new Voluntary Employee Beneficiary Associations (VEBA) for the general retirees and police and fire retirees; (2) Class 9 Pension Obligation Certificate (POC) claims; and (3) other unsecured bankruptcy claims. GLWA has a contractual obligation to pay a portion of the bonds based on an agreed-upon allocation percentage.

The Financial Recovery Bonds, Series 2014-C were issued with interest at 5.0 percent per annum. The 2014-C bonds were issued as part of the Syncora Settlement and FGIC/POC Settlement in the bankruptcy plan. GLWA has a contractual obligation to pay a portion of the bonds based on an agreed-upon allocation percentage.

In 2018, the governing body of the City of Detroit authorized the use of general funds for the full redemption of the General Obligation Bonds, 2014 Series C, including the amount allocated to the Authority. The 2014 Series C debt was fully redeemed on April 13, 2018. In addition, on December 13, 2018, the City issued Financial Recovery Refunding Bonds to redeem a portion of the 2014 Series B. The Authority will repay the City of Detroit General Fund under the terms of the original debt payment schedules for the 2014 Series B & C General Obligation Bonds, with principal and interest due on June 30 each year.

Bond Issue	Original Issue Amount	Range of Interest Rates	Maturity Date	Outstanding Ending Balance
Water Fund				
Series 2014-B Series 2014-C	\$ 26,540,080 3,829,794	4.00% and variable 5.00%	4/1/44 6/30/27	\$ 15,556,025 1,180,510
Total Water Fund				16,736,535
Sewage Disposal Fund				
Series 2014-B	44,233,463	4.00% and variable	4/1/44	34,990,439
Series 2014-C	6,382,990	5.00%	6/30/27	2,655,341
Total Sewage Disposal Fun	d			37,645,780
Total Business-type Activitie	es			\$ 54,382,315

The following is a schedule of the obligation payable for the Financial Recovery Bonds at June 30, 2021:



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

OBLIGATION PAYABLE - CITY OF DETROIT 2014 FINANCIAL RECOVERY BONDS (cont.)

As of June 30, 2021, debt service requirements of the obligation payable for the Financial Recovery Bonds were as follows:

Year Ended June 30		Principal	Interest		Total	
Water Fund						
2022	\$	194,242	\$	681,267	\$	875,509
2023	•	203,954	·	671,554	·	875,508
2024		214,151		661,357		875,508
2025		1,002,661		650,649		1,653,310
2026		1,013,904		608,294		1,622,198
2027 - 2031		3,996,210		2,494,325		6,490,535
2032 - 2036		3,889,008		2,006,728		5,895,736
2037 - 2041		3,889,008		1,400,043		5,289,051
2042 - 2044		2,333,397		280,009		2,613,406
Total Water Fund	\$	16,736,535	\$	9,454,226	\$	26,190,761
Sewage Disposal Fund						
2022	\$	436,911	\$	1,532,384	\$	1,969,295
2023	Ŧ	458,757	Ŧ	1,510,539	Ŧ	1,969,296
2024		481,694		1,487,601		1,969,295
2025		2,255,301		1,463,516		3,718,817
2026		2,280,590		1,368,246		3,648,836
2027 - 2031		8,988,740		5,610,525		14,599,265
2032 - 2036		8,747,608		4,513,765		13,261,373
2037 - 2041		8,747,608		3,149,139		11,896,747
2042 - 2044		5,248,571		629,828		5,878,399
Total Sewage Disposal Fund	\$	37,645,780	\$	21,265,543	\$	58,911,323
Total Business-type Activities	\$	54,382,315	\$	30,719,769	\$	85,102,084



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 13 - LONG-TERM DEBT (cont.)

INTEREST EXPENSE

The following represents the amounts recorded as interest expense for the year ended June 30, 2021:

	 Water Fund	D	Sewage isposal Fund	B	Total usiness-type Activities
Revenue bonds and loans Regional System Lease Lease-raw water rights Obligation payable Lease-right to use asset	\$ 106,298,918 17,249,352 4,018,581 690,516	\$	112,558,349 21,082,541 - 1,553,190 33,567	\$	218,857,267 38,331,893 4,018,581 2,243,706 33,567
Total Interest Expense	\$ 128,257,367	\$	135,227,647	\$	263,485,014

NOTE 14 - REGIONAL SYSTEMS LEASES PAYABLE AND RELATED PREPAID LEASE

On January 1, 2016, the Authority effectuated lease agreements with the City for the regional water and sewage disposal systems for a term of 40 years, to be extended automatically to coincide with the final maturity of any bonds issued to finance improvements to the regional or local sewage disposal systems. The agreements collectively provide for an annual lease payment of \$50 million. Currently, \$22,500,000 is allocated to the Water Fund and \$27,500,000 is allocated to the Sewage Disposal Fund. The lease for the water system provides service to the wholesale customers and the retail water customers of the City up to the point of connection to the local water system facilities of the City. The lease for the sewage disposal system system provides service to the wholesale customers and the retail sewage disposal customers of the City up to the point of connection to the local sewage disposal system facilities of the City. In addition, both leases provide that certain other assets including cash and investments held by DWSD as of December 31, 2015 be transferred to GLWA, all revenues of the regional and local water and sewage disposal systems are assigned to GLWA, and that GLWA assumes all DWSD bonded debt and certain other liabilities. The long-term leases are recorded as the present value of all future debt payments.

The regional system leases were recorded under GASB 69 to record the acquisition of the operations of the City of Detroit water and sewage disposal systems. The liability for the leases is allocated in the computation of net position based upon the components of net position acquired. Under the definitions of the regional system leases all improvements, additions and replacements to the original facilities acquired are considered to be leased facilities.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 14 - REGIONAL SYSTEMS LEASES PAYABLE AND RELATED PREPAID LEASE (cont.)

Amounts reported as a liability at year-end represent the net present value of all future lease payments. Changes in the Regional Systems leases payable for the year ended June 30, 2021 were as follows:

	Beginning Balance	Increase	Decrease	Ending Balance	Amount due Within One Year*
Water Fund Sewage Disposal Fund	\$ 416,469,749 509,018,583	\$	\$ (5,232,465) (6,395,235)	\$ 411,237,284 502,623,348	\$ 5,454,878 6,667,073
Total Business-type Activities	<u>\$ 925,488,332</u>	<u>\$</u> \$	<u>\$ (11,627,700)</u>	<u>\$ 913,860,632</u>	<u>\$ 12,121,951</u>

* The current portion of the Regional Systems leases payable represents the 12 monthly payments required from July 1, 2021 through June 30, 2022. Future revenues are intended to cover these payments.

As of June 30, 2021, aggregate requirements of the Regional Systems leases were as follows:

	Year Ended June 30		Principal	 Interest	 Total
Water Fund					
	2022	\$	5,454,878	\$ 17,045,122	\$ 22,500,000
	2023		5,686,745	16,813,255	22,500,000
	2024		5,928,467	16,571,533	22,500,000
	2025		6,180,464	16,319,536	22,500,000
	2026		6,443,173	16,056,827	22,500,000
	2027 - 2031		36,564,374	75,935,626	112,500,000
	2032 - 2036		45,024,777	67,475,223	112,500,000
	2037 - 2041		55,442,781	57,057,219	112,500,000
	2042 - 2046		68,271,342	44,228,658	112,500,000
	2047 - 2051		84,068,224	28,431,776	112,500,000
	2052 - 2056	_	92,172,059	 9,077,941	 101,250,000
Total Water Fund		\$	6 411,237,284	\$ 365,012,716	\$ 776,250,000



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

	Year Ended June 30	 Principal	Interest		Total
Sewage Disposal Fund					
	2022	\$ 6,667,073 \$	20,832,927	\$	27,500,000
	2023	6,950,466	20,549,534		27,500,000
	2024	7,245,904	20,254,096		27,500,000
	2025	7,553,901	19,946,099		27,500,000
	2026	7,874,989	19,625,011		27,500,000
	2027 - 2031	44,689,790	92,810,210		137,500,000
	2032 - 2036	55,030,284	82,469,716		137,500,000
	2037 - 2041	67,763,399	69,736,601		137,500,000
	2042 - 2046	83,442,751	54,057,249		137,500,000
	2047 - 2051	102,750,051	34,749,949		137,500,000
	2052 - 2056	 112,654,740	11,095,260		123,750,000
Total Sewage Disposal Fund		 502,623,348	446,126,652		948,750,000
Total Business-type Activities		\$ 913,860,632 \$	811,139,368	\$1	,725,000,000

NOTE 14 – REGIONAL SYSTEMS LEASES PAYABLE AND RELATED PREPAID LEASE (cont.)

As part of the 2018 MOU, the MBO requirement for six months of lease payments made to DWSD on January 1, 2016 will be treated as a prepaid lease payment. The initial term of the regional system leases began on the effective date and ends on December 31, 2055. GLWA's last monthly payment shall be June 1, 2055 and GLWA's \$25 million lease pre-payment on January 1, 2016 shall be applied to the period of July 1, 2055 through December 31, 2055. Of the \$25 million recorded as a prepaid on the statement of net position, \$11,250,000 is recorded in the Water Fund and \$13,750,000 in the Sewage Disposal Fund.

NOTE 15 – OTHER LIABILITIES

Changes in other liabilities for the year ended June 30, 2021 were as follows:

	Beginning Balance	Increase	Decrease	Ending Balance	Due Within One Year
Water Fund Compensated Absences Workers' Compensation Claims and Judgements WRAP payable Cash held for the benefit of	\$ 4,936,186 251,834 2,222,500 761,256	\$ 3,752,801 337,010 - -	\$ (3,907,181) (258,027) (2,072,500) (761,256)	\$ 4,781,806 330,817 150,000 -	\$ 2,768,026 255,817 100,000 -
DWSD budget stabilization	2,000,000			2,000,000	
Total Water Fund	\$ 10,171,776	\$ 4,089,811	\$ (6,998,964)	\$ 7,262,623	\$ 3,123,843



INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 15 - OTHER LIABILITIES (cont.)

	Beginning Balance	Increase	Decrease	Ending Balance	Due Within One Year
Sewage Disposal Fund					
Lease payable – Right to Use Asset	\$-	\$ 4,543,607	\$ (96,310)	\$ 4,447,297	\$ 189,119
Compensated Absences	899,422	1,707,388	(1,759,688)	847,122	729,241
Claim and Judgements WRAP payable Cash held for the benefit of DWSD budget	7,650,000 917,291	1,736,250 -	(61,250) (917,291)	9,325,000 -	1,825,000 -
stabilization	5,500,000	-		5,500,000	
Total Sewage Disposal Fund	14,966,713	7,987,245	(2,834,539)	20,119,419	2,743,360
Total Business-type Activities	<u>\$ 25,138,489</u>	<u>\$ 12,077,056</u>	<u>\$ (9,833,503</u>)	<u>\$ 27,382,042</u>	<u>\$ 5,867,203</u>

Lease Payable – Right to Use Asset

The Authority entered into a lease agreement for a warehouse to store materials for operational needs. The lease commenced on April 1, 2021. The lease was recorded under GASB 87 using a discount rate of 3%. The lease term is for 5 years and 4 months with one five-year renewal option. The Authority has included the renewal period when recording the lease. An estimate of a 2.5% CPI at the time of renewal was used in calculating the payments for the renewal period.

The future lease payments are detailed below:

Year Ended					
June 30	Principal		Interest		Total
Sewage Disposal Fund					
2022	\$	189,119	\$	130,465	319,584
2023		366,784		122,762	489,546
2024		390,070		111,443	501,513
2025		414,719		99,404	514,123
2026		436,958		86,622	523,580
2027 - 2031		2,600,405		214,774	2,815,179
2032		49,242		123	 49,365
Total Sewage Disposal Fund	\$	4,447,297	\$	765,593	\$ 5,212,890

The right to use assets acquired through the lease are summarized below:

	Cost		 umulated ortization	E	iding Book Value	
Sewage Disposal Fund Warehouse	\$	4,543,607	\$ (109,926)	\$	4,433,681	



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 15 – OTHER LIABILITIES (cont.)

Compensated Absences

The Authority has a paid time off (PTO) policy which has an annual accrual period ending September 30 each year. Employees are allowed to carry over a maximum bank of 80 hours to the next accrual period. Balances greater than 80 hours up to a maximum of 160 hours are converted to the retiree health saving program at 50% of the value of the PTO time. Hours in excess of 160 hours are forfeited if unused by September 30 of each accrual period. The accrued compensated absences for PTO accrual are approximately \$2,665,000 for the Water Fund and \$847,000 for the Sewage Disposal Fund on June 30, 2021.

Due to the impact COVID-19 had on our team members, the Authority granted team members who were granted advanced PTO or used accrued PTO hours for a COVID-19 related absence between March 16, 2020 and June 30, 2021 replenishment of PTO, not to exceed 80 hours, for COVID-19 related absence.

The Authority also has an accrued compensated absence liability assumed on January 1, 2016 relating to the accumulated unpaid vacation and sick leave balances for those employees who retired from the City or resigned from the City and accepted employment with the Authority on January 1, 2016. The June 30, 2021 balance of the accrued compensated absences for the liability assumed on January 1, 2016 is approximately \$2,117,000 of which \$357,000 is current. This liability is recorded in the Water Fund as the disbursements for payment will be processed from the Water Fund with reimbursement from the Sewage Disposal Fund. The accrued compensated absences include the employers' share of Social Security and Medicare taxes.

Workers' Compensation

Workers' compensation is discussed in Note 16 Risk Management/Self-Insurance Programs.

Claims and Judgements

The Authority has accrued in its financial statements for known asserted claims in which future settlements may be necessary. See Note 16 for discussion of risk of loss and insurance coverages.

Cash Held for the Benefit of DWSD Budget Stabilization

Under the terms of the Master Bond Ordinance (MBO), the Authority retains cash on hand for the benefit of DWSD for budget stabilization funds to be used if DWSD has cash shortfalls. The 2018 Memorandum of Understanding set the balance to be retained in the Budget Stabilization Funds at \$7,500,000 for the life of the Regional System Leases. The Water Fund has retained \$2,000,000 and the Sewage Disposal Fund has \$5,500,000.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 16 – RISK MANAGEMENT/SELF-INSURANCE PROGRAMS

The Authority is exposed to various types of risk of loss including torts; theft of, damage to, or destruction of assets; errors or omissions; occupationally related illnesses or injuries to employees; natural disasters; and environmental occurrences. Also included are risk of loss associated with providing medical and prescription drug benefits to employees.

The Authority transfers risk via the purchase of a variety of insurance policies the most significant of which are shown in the table below (alphabetical by coverage):

Coverage	Coverage Limits	Maximum Retention Per Occurrence
Aviation	\$5,000,000	\$0
Cyber Breach	\$5,000,000	\$250,000
Fiduciary	\$15,000,000	\$1,000
General and Auto Liability	\$10,000,000/ \$12,000,000	\$1,000,000
Pollution Legal Liability	\$25,000,000	\$500,000
Property Damage	\$750,000,000	\$1,000,000/\$2,500,000 for conveyor operations
Public Officials and Employment Practices	\$25,000,000	\$250,000
Underground Storage Tanks	\$2,000,000	\$5,000
Workers' Compensation	Statutory/ \$2,000,000	\$1,250,000

The Authority assumes all risk for motor vehicle physical damage.

Settled claims relating to commercial insurance have not exceeded the amount of insurance coverage since inception of the Authority.

A liability for claims is reported when it is probable that a loss has occurred, and the amount of the loss can be reasonably estimated. Liabilities include an amount for claims that have been incurred but not reported. The Authority estimates the liability for medical and worker's compensation claims that have been incurred through the end of the fiscal year, including claims that have been reported as well as those that have not yet been reported, which includes estimates of both future payments of losses and related claim adjustments expense. The liability is based on individual claims and management's evaluation of experience with respect to the probable number and nature of claims.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 16 - RISK MANAGEMENT/SELF-INSURANCE PROGRAMS (cont.)

Medical and prescription drug insurance

The Authority provides medical and prescription drug benefits to a significant number of employees through a self-insured health plan that is administered by third party administrators. The Authority has stop loss insurance for its self-insured medical and prescription drug plans with terms of \$300,000 per contract to reduce risk exposure. The self-insured program is administered by a third-party administrator who provides claims review and processing services as well as illustrated premium rates, which are anticipated, over time, to approximate the actual cost of benefits. Claim payments are reported net of rebates received for negotiated pricing for pharmacy benefits and stop loss reimbursements. The unpaid claims estimate is accrued within the Water Fund's accrued salaries, wages and benefits payable account on the Statement of Net Position.

	 2021	 2020
Unpaid claims, beginning of year Incurred claims (including change in IBNR provisions) Claims payments	\$ 1,376,431 11,113,461 (11,572,361)	\$ 1,001,198 12,295,585 (11,920,352)
Unpaid Claims, End of Year	\$ 917,531	\$ 1,376,431

Workers' compensation

The Authority maintains a self-insurance program for workers' compensation coverage up to statutory limits. The program is administered by a third-party who provides claim review and medical bill review services. Claim liabilities are calculated considering the effects of recent claim settlement trends including frequency and amount of payouts and other economic and social factors. The claim liabilities also include estimated costs for claim administration fees and outside legal and medical assistance costs. The liabilities for workers' compensation current year claims is based on estimates and payments are based on actuals. The unpaid claims estimate is accrued within the Water Fund's accrued workers' compensation account (See Note 15).

Changes in the balances of claims liabilities during the past two years are as follows:

	 2021	 2020	
Unpaid claims, beginning of year Incurred claims (including change in IBNR provisions) Claims payments	\$ 251,834 337,010 (258,027)	\$ 292,480 252,998 (293,644)	
Unpaid Claims, End of Year	\$ 330,817	\$ 251,834	



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 17 – DEFINED CONTRIBUTION PENSION PLANS

DEFINED CONTRIBUTION PLANS

The Great Lakes Water Authority Defined Contribution Retirement Plan is a 401(a) governmental money purchase plan administered by ICMA Retirement Corporation (the "Administrator") to provide benefits at retirement to all full-time employees of the Authority. The Authority contributes 6.0% of earnings to the plan. The Authority will make an additional contribution to the 401(a) plan to match employee contributions under the Great Lakes Water Authority 457 Plan up to 3% of compensation. Employees are 100% vested after three years of service (cliff vesting). Employees who transferred to the Authority on or around January 1, 2016 from DWSD retain their years of service for vesting purposes. The Authority recognized expense of \$5,102,937, which is net of forfeitures of \$292,210, for the year ended June 30, 2021. The Authority has accrued approximately \$250,000 of expense on the accrued payroll at June 30, 2021. At June 30, 2021, there were 1,173 plan members.

The Great Lakes Water Authority Defined Contribution Plan Make-Up Benefit is a 401(a) governmental money purchase plan administered by ICMA Retirement Corporation (the "Administrator") to provide benefits at retirement to all employees who terminated employment with DWSD on or around January 1, 2016 and were not vested in the City of Detroit General Retirement System (GRS). Eligible employees were required to rollover to the Authority's Section 457 Deferred Compensation Plan their refunded employee mandatory contribution from GRS. The amount of the make-up benefit was determined by an actuary based on the present value of the lost GRS benefit. It was accrued in fiscal year 2018 and funded during fiscal year 2019. No additional contributions are required for this plan. Employees are 100% vested after one year of service. At June 30, 2021 there are 34 participants in the plan.

The Authority has a Section 457 Deferred Compensation Plan which employees can make pre-tax or posttax (Roth) contributions which are immediately 100% vested. At June 30, 2021 there were 1,157 plan members.

The Authority has a Roth IRA Plan which allows employees to make post-tax contributions which are immediately 100% vested. At June 30, 2021 there were 74 plan members.

RETIREMENT HEALTH SAVINGS PLAN

The Authority also provides a Retirement Health Savings Program for full-time employees. Employees are required to contribute \$10 per pay period and the Authority contributes \$80 per pay period. Employees are 100% vested after three years of service (cliff vesting). Employees who transferred to the Authority on or around January 1, 2016 from DWSD retain their years of service for vesting purposes. The Authority recognized an expense \$1,996,534, which is net of forfeitures of \$138,826, for the year ended June 30, 2021. The Authority has accrued approximately \$94,000 of expense on the accrued payroll at June 30, 2021. Employee contributions were \$257,870 for the year ended June 30, 2021. At June 30, 2021, there were 1,529 plan members.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 18 – NET PENSION LIABILITY (SPECIAL FUNDING SITUATION)

As part of the City of Detroit bankruptcy plan of adjustment (POA) and the Regional System Leases (Section 4.3), the City, the City of Detroit General Employees' Retirement system (GRS or the System) and the Authority entered into an agreement on December 1, 2015 that set forth the terms for contributions and reporting of the DWSD share of the GRS pension pool. GRS provides the information necessary for the Authority and DWSD to report the proportionate share separately in their respective statements. On January 24, 2017, DWSD and the Authority provided a supplement to the agreement whereby GRS is directed to allocate investments and pension liabilities of the DWSD division on the basis of 70.3% to the Authority and 29.7% to DWSD effective January 1, 2016. This agreement constitutes a special funding situation pursuant to the provisions of GASB Statement No. 68. Accounting and Financial Reporting for Pensions. As such, while no Authority employees earn service credit in the legacy or hybrid plans, GLWA is legally responsible for making substantial contributions to a legacy pension plan of another entity and, accordingly, must record a net pension liability for its proportion and make the following disclosures regarding the plan as repaired by the standard. Information is available in a separate audit report for the "Combined Plan for the General Retirement System of the City of Detroit" as well as "The General Retirement System of the City of Detroit GASB Statement Nos. 67 and 68 Accounting and Financial Reporting for Pension Plans of Component II" as of June 30, 2020 which are available by contacting the Authority's management.

Plan Administration. The Authority contributes to (and DWSD participates in) the System. The System is a single employer plan composed of a defined benefit plan component and a defined contribution annuity plan component. The plan provides retirement, disability, and survivor benefits to plan members and beneficiaries. The plan is administered by its own board of trustees. Plan members include active employees, retirees and beneficiaries from various departments within the City. Benefit terms have been established by contractual agreements between the City and the employees' collective bargaining units; amendments are subject to the same process.

The System issues publicly available financial reports that include financial statements and the required supplementary information. The reports can be obtained from City of Detroit Retirement Systems, One Detroit Center, 500 Woodward Avenue, Suite 3000, Detroit, MI 48226 or obtained from the Systems' website (www.rscd.org). Detailed information about the pension plan's fiduciary net position is available in the separately issued financial reports.

Benefits Provided. Plan members may retire at age 55 or 60 with 5, 8, 10 or 25 years of credited service depending on which group the employee is in. Members are vested after completing 5, 8 or 10 years of credited service. Retirement options that provide for survivor benefits are available to members. The Plan also provides death and disability benefits. If a member leaves employment or dies before vesting, accumulated member contributions plus interest are refunded to the member or designated beneficiary.

Component II is the legacy plan, the original defined benefit plan, which includes a defined benefit component and a defined contribution component. Component II generally applies to benefits accrued by members prior to July 1, 2014. The plan provides retirement, disability, and survivor benefits to plan members and beneficiaries. Except as specifically provided in the combined plan, benefits provided under Component II are frozen effective June 30, 2014. Component II also includes the income stabilization fund. The fund, a part of Component II and established as a provision of the POA, was established for the sole purpose of paying the income stabilization benefits to eligible pensioners. Complete details regarding the Component II benefits and changes in those benefits by virtue of the POA are presented in the System financial statements.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 18 - NET PENSION LIABILITY (SPECIAL FUNDING SITUATION) (cont.)

Employer Contributions. Employer contributions, including the Authority's nonemployer contribution, for the respective components are as follows:

During fiscal year 2020, employer contributions were not actuarially determined, but are determined by the provisions of the POA. Included within contributions for fiscal year 2020 are contributions from the Foundation for Detroit's Future in the amount of \$375,000 and approximately \$47.9 million of contributions from the City, City-related entities, and GLWA.

The POA obligates DWSD to pay \$2,500,000 per year towards administrative costs and annual plan contributions of \$42,900,000 per year in total for both water and sewer employees, until 2023. Pursuant to the Regional System leases, the Authority is obligated to pay its allocable share of such liability. The portion allocated to the Authority is \$31,916,200 for fiscal year 2021. This includes a contribution to the GRS pension plan of \$10,810,800 for the Water Fund and \$19,347,900 for the Sewage Disposal Fund for a total pension contribution of \$30,158,700. The contribution was made subsequent to the measurement date and has been recorded as a deferred outflow. It also includes an administrative fee of \$1,757,500, with \$630,000 paid by the Water Fund and \$1,127,500 paid by the Sewage Disposal Fund. Part of the administrative fee is considered a prepayment based on actual administrative expenses incurred by the plan as reported in the other supplemental information of the audited financial report of the GRS Plan.

Subsequent to 2023, DWSD and the Authority will be responsible for paying their allocable share of any additional amounts that are actuarially determined to be payable. An estimate of the 2024 contribution was included in the GRS annual actuarial valuation of Component II dated June 30, 2020. The total share for the DWSD is estimated to be between \$9.5 million and \$12.2 million. GLWA's share of the 2024 estimated contribution will be between \$6.6 million and \$8.6 million with approximately \$2.4 million to \$3.1 million allocated to the Water Fund and approximately \$4.3 million to \$5.5 million allocated to the Sewage Disposal Fund.

The information below represents the Authority's share of pension liability activity. DWSD separately reports its pro rata share of activity in its separate financial statements.

DWSD Employee Contributions. Contribution requirements of plan members are established and may be amended by the GRS Board of Trustees in accordance with the City Charter, union contracts, and plan provisions. For the year ended June 30, 2020, there were no employee contributions into Component II, as the plan was frozen as of June 30, 2014; contributions into Component I began thereafter.

Actuarial Assumptions. The total pension liability was actuarial determined as of June 30, 2019, which used updated procedures to roll forward the estimated liability to June 30, 2020. The actuarial valuation used the following actuarial assumptions applied to all periods included in the measurement.

Inflation	Not applicable
Salary increases	Not applicable
Investment rate of return	7.06%, net of investment expense and including inflation

The actuarial assumptions were based on an experience study from 2008-2013 issued in February 2015; the mortality table assumption was based on RP-2014 Blue Collar Annuitant Table for males and females. The tables are projected to be fully generational, based on two-dimensional sex distinct mortality scale MP-2014.

The actuarial assumptions, other than mortality and the investment rate of return, used in the June 30, 2019 valuation to calculate the total pension liability as of June 30, 2020 were based on the results of an actuarial experience study for the period from 2002-2007.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 18 - NET PENSION LIABILITY (SPECIAL FUNDING SITUATION) (cont.)

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each asset class. These real ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. For each asset class that is included in the pension plan's target asset allocation as of June 30, 2020, these best estimates are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Expected Money- Weighted Rate of Return
Global equity	37.0%	6.37%	2.36%
Global fixed income	27.0%	3.02%	0.82%
Private equity	8.0%	10.57%	0.85%
Cash	0.0%	0.00%	0.00%
Real estate	15.0%	5.39%	0.81%
Diversifying strategies	8.0%	2.38%	0.19%
Hedge funds	5.0%	3.69%	0.18%
	100%		5.21%
Inflation			1.85%
Investment Rate of Return			7.06%

Discount Rate. The discount rate used to measure the total pension liability was 7.06%, however, the single discount rate used at the beginning of the year was 7.38 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that City of Detroit's contributions will be made at rates equal to the difference between actuarially determined contribution rates and the employee rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees both at the beginning of the year, as well as at the end of the year. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Net Pension Liability. As permitted by GASB Statement No. 68, the net pension liability was measured as of June 30, 2020, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date.

Changes in the Net Pension Liability. The components of the change in the Authority's share of the net pension liability are summarized as follows:

		Water	 Sewage Disposal	Total	
Total pension liability Plan fiduciary net position	\$	182,181,063 (130,452,884)	\$ 326,046,271 (233,469,252)	\$ 508,227,334 (363,922,136)	
Authority's Net Pension Liability	\$	51,728,179	\$ 92,577,019	\$ 144,305,198	



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 18 - NET PENSION LIABILITY (SPECIAL FUNDING SITUATION) (cont.)

	Т	otal Pension Liability (a)		Plan Fiduciary Net Position (b)	1	Net Pension Liability (a) – (b)
Water Fund	^	404 000 050	•		•	47 0 40 07 4
Balances at June 30, 2020	\$	184,323,353	\$	136,679,979	\$	47,643,374
Changes for the year: Interest Difference between expected and		13,006,533		-		13,006,533
actual experience		(3,679,680)		-		(3,679,680)
Changes in assumptions		4,696,986		-		4,696,986
Employer contributions Net investment income Benefit payments, including refunds of		-		10,810,800 (1,295,521)		(10,810,800) 1,295,521
employee contributions Other changes		(16,166,129)		(16,166,129) 423,755		- (423,755 <u>)</u>
Net changes		(2,142,290)		(6,227,095)		4,084,805
Balances at June 30, 2021	\$	182,181,063	\$	130,452,884	\$	51,728,179
	Т	otal Pension Liability (a)		Plan Fiduciary Net Position (b)	١	Net Pension Liability (a) – (b)
Sewage Disposal Fund	T 	Liability		Net Position	1	Liability
Sewage Disposal Fund Balances at June 30, 2020	т 	Liability		Net Position	۲ \$	Liability
Balances at June 30, 2020 Changes for the year: Interest		Liability (a)		Net Position (b)		Liability (a) – (b)
Balances at June 30, 2020 Changes for the year:		Liability (a) 329,880,290		Net Position (b)		Liability (a) – (b) 85,266,515
Balances at June 30, 2020 Changes for the year: Interest Difference between expected and actual experience Changes in assumptions		Liability (a) 329,880,290 23,277,566		Net Position (b) 244,613,775		Liability (a) – (b) 85,266,515 23,277,566 (6,585,459) 8,406,113
Balances at June 30, 2020 Changes for the year: Interest Difference between expected and actual experience Changes in assumptions Employer contributions		Liability (a) 329,880,290 23,277,566 (6,585,459)		Net Position (b) 244,613,775 - - 19,347,900		Liability (a) – (b) 85,266,515 23,277,566 (6,585,459) 8,406,113 (19,347,900)
Balances at June 30, 2020 Changes for the year: Interest Difference between expected and actual experience Changes in assumptions Employer contributions Net investment income		Liability (a) 329,880,290 23,277,566 (6,585,459)		Net Position (b) 244,613,775		Liability (a) – (b) 85,266,515 23,277,566 (6,585,459) 8,406,113
Balances at June 30, 2020 Changes for the year: Interest Difference between expected and actual experience Changes in assumptions Employer contributions Net investment income Benefit payments, including refunds of		Liability (a) 329,880,290 23,277,566 (6,585,459) 8,406,113		Net Position (b) 244,613,775 - - 19,347,900 (2,318,571)		Liability (a) – (b) 85,266,515 23,277,566 (6,585,459) 8,406,113 (19,347,900)
Balances at June 30, 2020 Changes for the year: Interest Difference between expected and actual experience Changes in assumptions Employer contributions Net investment income		Liability (a) 329,880,290 23,277,566 (6,585,459)		Net Position (b) 244,613,775 - - 19,347,900		Liability (a) – (b) 85,266,515 23,277,566 (6,585,459) 8,406,113 (19,347,900)
Balances at June 30, 2020 Changes for the year: Interest Difference between expected and actual experience Changes in assumptions Employer contributions Net investment income Benefit payments, including refunds of employee contributions		Liability (a) 329,880,290 23,277,566 (6,585,459) 8,406,113		Net Position (b) 244,613,775 - - - 19,347,900 (2,318,571) (28,932,239)		Liability (a) – (b) 85,266,515 23,277,566 (6,585,459) 8,406,113 (19,347,900) 2,318,571

Sensitivity of the Net Pension Liability to Changes in the Discount Rate. The following presents the net pension liability of the Authority, calculated using the discount rate of 7.06%, as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is 1% lower (6.06%) or 1% higher (8.06%) than the current rate:

	1% Decrease (6.06%)		Current Discount Rate (7.06%)		1% Increase (8.06%)	
Water Fund Sewage Disposal Fund	\$	62,747,320 112,297,783	\$	51,728,179 92,577,019	\$	42,293,557 75,692,040
Authority's Net Pension Liability	\$	175,045,103	\$	144,305,198	\$	117,985,597



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 18 - NET PENSION LIABILITY (SPECIAL FUNDING SITUATION) (cont.)

Pension Plan Fiduciary Net Position. Detailed information about the pension plan's fiduciary net position is available in the separately issued plan financial statements.

Pension Expense and Deferred Outflows and Inflows of Resources Related to Pensions. For the year ended June 30, 2021, the Authority recognized pension expense of \$8,075,457 and \$14,452,504 for the Water and Sewage Disposal Funds, respectively. At June 30, 2021, the Authority reported deferred outflows and inflows of resources related to pensions from the following sources:

		Deferred Outflows of Resources	 Deferred Inflows of Resources		-	let Deferred Outflows (Inflows) of Resources
Water Fund Net difference between projected and actual						
earnings on pension plan investments Employer contributions to the plan subsequent	\$	11,301,842	\$	-	\$	11,301,842
to the measurement date		10,810,800		-		10,810,800
Total Water Fund		22,112,642		_		22,112,642
Sewage Disposal Fund						
Net difference between projected and actual earnings on pension plan investments Employer contributions to the plan subsequent	t	20,226,710		-		20,226,710
to the measurement date		19,347,900		_		19,347,900
Total Sewage Disposal Fund		39,574,610		_		39,574,610
Total Business-type Activities	\$	61,687,252	\$	_	\$	61,687,252

The amount reported as deferred outflows of resources resulting from contributions subsequent to the measurement date will be recognized as a reduction in the net pension liability for the year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

Year Ended June 30	 Water	 Sewage Disposal	 Total
2022 2023 2024 2025	\$ 2,237,034 3,231,455 3,593,248 2,240,105	\$ 4,003,581 5,783,278 6,430,774 4,009,077	\$ 6,240,615 9,014,733 10,024,022 6,249,182
Total	\$ 11,301,842	\$ 20,226,710	\$ 31,528,552

Payable to the Pension Plan. At June 30, 2021, the Authority did not have any outstanding contributions payable to the pension plan for the year then ended.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 19 – COMMITMENTS AND CONTINGENCIES

CAPITAL IMPROVEMENT PROGRAM

The Authority is engaged in a variety of projects that are part of its five-year capital improvement program (the Program). The total cost of this Program is anticipated to be approximately \$932.5 million with a 75% spend rate assumption of \$699.3 million for the Water Fund and \$738.4 million with a 75% spend rate assumption of \$553.8 million for the Sewage Disposal Fund through fiscal year 2025. The Program is being financed from revenue bond and state revolving fund proceeds in addition to the Improvement and Extension Funds.

The total amount of construction contract commitments outstanding at June 30, 2021 was approximately \$306 million for the Water Fund and \$90 million for the Sewage Disposal Fund.

The current wastewater disposal service contract with the Oakland-Macomb Interceptor Drain Drainage District (OMIDD) provides for OMIDD to maintain, repair, and improve Interceptor PCI-5, the Northeast Sewer Pump Station and the North Interceptor East Arm, which are related to the capital assets in the Regional Sewage Disposal System Lease (See Note 14). The amount of capital improvements in progress related to the contract are estimated by OMIDD to be worth \$ 30.8 million for the Sewage Disposal Fund at June 30, 2021. At a future date, in accordance with the contract, OMIDD will offer and transfer the assets, following GLWA's acceptance, as the assets are placed in service.

CONTINGENCIES

The Authority is subject to various government environmental laws and regulations. GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*, established accounting and financial reporting standards for pollution (including contamination) remediation obligations, which are obligations to address the current or potential detrimental effects of existing pollution by participating in pollution remedial activities such as site assessments and cleanups. The standard excludes pollution prevention or control obligations with respect to current operations, and future pollution remediation activities that are required upon retirement of an asset, such as landfill closure and post-closure care. The Authority determined that there were no estimated pollution remediation obligations to be recorded at June 30, 2021.

GASB Statement No. 83, *Certain Asset Retirement Obligations*, established accounting and financial reporting standards for legally enforceable liabilities related to the retirement of tangible capital asset(s) where the tangible capital asset is permanently removed from service. The retirement of a tangible capital asset can occur via sale, abandonment, recycling or disposal in some other manner and excludes the temporary idling of a tangible capital asset. An asset retirement obligation does not apply to obligations resulting from the disposal, or plan to dispose, of a tangible capital asset; obligation(s) associated with using a tangible capital asset for a different purpose; obligation(s) for pollution remediation; obligation(s) from regular maintenance or the cost to replace a component. The Authority determined there were no legally enforceable asset retirement obligations to be recorded at June 30, 2021.

The Sewage Disposal Fund's operations are subject to regulation pursuant to the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 and the Water Quality Act of 1987 (collectively, the Clean Water Act). Included in the regulatory framework established by the Clean Water Act is the National Pollutant Discharge Elimination System (NPDES) permit program, which requires operation of wastewater system facilities according to discharge limitations and other requirements as set forth in permits issued to each facility. The Environmental Protection Agency (EPA) has authorized the Michigan Department of Environmental Quality (MDEQ) to implement and enforce the federal NPDES permit program. The Sewage Disposal Fund operates pursuant to the NPDES Permit. The Authority's current NPDES permit was issued July 1, 2019 and expires on October 1, 2022.



INDEX TO NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 19 - COMMITMENTS AND CONTINGENCIES (cont.)

CONTINGENCIES (cont.)

The Authority is a defendant in numerous alleged claims, lawsuits, billing disputes, and other stated and pending demands. The Authority's Legal Department has estimated a reserve of \$150,000 for the Water Fund and \$9,325,000 for the Sewage Disposal Fund, which are included in the accompanying financial statements, for the potential outcome of such claims or the amount of potential damages in the event of an unfavorable outcome for each of the above contingencies. The Authority's management believes that any differences in reserved amounts and final settlement, after consideration of claims covered by insurance, resulting from such litigation will not materially impact the Authority's financial position or results of operations.

The Authority holds various commercial insurance policies to cover other potential loss exposures.

NOTE 20 – NET INVESTMENT IN CAPITAL ASSETS

The composition of net investment in capital assets as of June 30, 2021 was as follows:

	Water Fund	Sewage _Disposal Fund	Total Business-type Activities
Capital Assets and Intangible Asset Capital assets not being depreciated Capital assets being depreciated, net Intangible asset – net	\$ 498,010,970 1,324,554,087 94,219,373	\$ 315,474,451 2,221,472,660 4,433,681	\$ 813,485,421 3,546,026,747 98,653,054
Total Capital Assets and Intangible Asset	1,916,784,430	2,541,380,792	4,458,165,222
Less: Related Debt Total debt, net (Note 13) Less: Portion of bonds used for SWAP	2,439,892,074	2,999,914,318	5,439,806,392
termination agreements Less: Obligation receivable-local share of	(168,439,817)	(227,272,994)	(395,712,811)
debt (Note 8)	(568,652,092)	(399,355,627)	(968,007,719)
Deferred charge on refunding	(44,677,823)	(118,709,227)	(163,387,050)
Deferred gain on refunding	52,250,187	44,046,097	96,296,284
Capital portion of regional system lease	299,668,609	348,971,391	648,640,000
Lease obligation-raw water rights (Note 13) Lease obligation-right to use asset	98,095,302	-	98,095,302
(Note 15)		4,447,297	4,447,297
Total Related Debt	2,108,136,440	2,652,041,255	4,760,177,695
Net Investment in Capital Assets	<u>\$ (191,352,010</u>)	<u>\$ (110,660,463</u>)	\$ (302,012,473)

The capital portion of the regional system lease payable is the percentage of the lease liability that has been determined to be allocated to the net investment in capital assets acquired. The lease is described in Note 14.



NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2021

NOTE 21 – SUBSEQUENT EVENTS

JUNIOR LIEN REVENUE BONDS

The Authority received an order of approval from EGLE in August 2021, for \$12.8 million for local water system improvements and in September 2021, for \$104.7 million for regional system improvements. These orders of approvals are part of the \$128 million SRF Junior Lien Water Supply System Revenue Bonds (Ordinance No. 2021-03) approved by the GLWA Board in June 2021.

The Authority received an order of approval from EGLE in August 2021, for \$9.2 million for local sewage disposal system improvements. This order of approval is part of the \$30 million SRF Junior Lien Sewage Disposal System Revenue Bonds (Ordinance No. 2021-04) approved by the GLWA Board in June 2021.

The above SRF loans bear a fixed interest rate of 1.875% for a term of twenty (20) years.

RAIN EVENTS

During the Summer of 2021, GLWA's service area experienced several intense rain events. These rain events resulted in sewer backups, causing property damage. GLWA received over 23,000 property damage claims from these intense rain events. Most of the claims relate to rain events occurring on June 25-26, 2021 and July 16, 2021. GLWA submitted all claims to its general liability and pollution insurance carriers. GLWA is awaiting coverage opinion letters from its carriers.

GLWA is conducting an internal investigation into the June 25-26 and July 16 rain events. For June 25-26 rain event, the preliminary findings of the internal investigation suggest that the heavy rain was the primary cause of the sewer backups. For the July 16 rain event, the preliminary findings of the internal investigation suggest that external power quality issues at the Bluehill Pump Station played a role in reported sewer backups in the Bluehill Pump Station tributary area.

GLWA's Board of Directors is also conducting an independent investigation into the rain events as well. At its November 18, 2021 Board Meeting, the Board passed a resolution allowing the internal investigative team and the Board's independent investigative team to collaborate on findings and recommendations related to the June 25-26, and July 16 rain events.

As of November 29, 2021, GLWA has been named in 10 sewer backup lawsuits. In the lawsuits in which GLWA has been served with the Complaint, GLWA filed a motion to dismiss the case. In the dispositive motions, GLWA argued that the heavy rain (an Act of God) was the cause of the sewer backup and not a defect in GLWA's sewer system.



REQUIRED SUPPLEMENTARY INFORMATION

REQUIRED SUPPLEMENTARY INFORMATION

Nonemployer Contributing Entity Share of City of Detroit General Employees' Retirement System - Component II

Schedule of Changes in Net Pension Liability and Related Ratios - Business-Type Activities

		Fiscal Year				
	2021	2020	2019	2018	2017	2016
Measurement Date	2020*	2019*	2018*	2017*	2016*	2015**
Share of Total Pension Liability						
Interest	\$ 36,284,099	\$ 36,700,388	\$ 36,577,126	\$ 37,829,066	\$ 40,381,626	\$ 51,393,411
Differences between expected and						
actual experience	(10,265,139)	3,462,000	(320,610)	2,369,183	(5,063,923)	(427,134)
Changes in assumptions	13,103,099	-	(21,345,359)	15,153,104	17,627,395	(19,789,958)
Benefit changes	-	-	-	-	-	(152,368,108)
Benefit payments, including refunds						
of employee contributions	(45,098,368)	(46,507,916)	(47,396,240)	(51,081,380)	(69,639,576)	(54,293,644)
Net change	(5,976,309)	(6,345,528)	(32,485,083)	4,269,973	(16,694,478)	(175,485,433)
Share of total pension liability, beginning of year	514,203,643	520,549,171	553,034,254	548,764,281	565,458,759	740,944,192
Share of Total Pension Liability, End of Year	508,227,334	514,203,643	520,549,171	553,034,254	548,764,281	565,458,759
Share of Plan Fiduciary Net Position						
Employer contributions	30,158,700	30,158,700	30,158,700	30,158,700	30,158,700	30,150,889
Employee contributions	- · · · · · -	-	-	-	-	130,951
Net investment income (loss)	(3,614,092)	9,194,433	30,347,172	38,812,244	(1,311,974)	17,280,285
Benefit payments, including refunds						
of employee contributions	(45,098,368)	(46,507,916)	(47,396,240)	(51,081,380)	(69,639,576)	(54,293,644)
Administrative expense	-	-	-	-	-	(21,294)
Other changes	1,182,142	(119,469)	1,386,027	1,494,049	252,263	27,758,558
Net change	(17,371,618)	(7,274,252)	14,495,659	19,383,613	(40,540,587)	21,005,745
Share of plan fiduciary net position, beginning of year	381,293,754	388,568,006	374,072,347	354,688,734	395,229,321	374,223,576
Share of Plan Fiduciary Net Position, End of Year	363,922,136	381,293,754	388,568,006	374,072,347	354,688,734	395,229,321
SHARE OF NET PENSION LIABILITY	<u>\$ 144,305,198</u>	<u>\$ 132,909,889</u>	<u>\$ 131,981,165</u>	<u>\$ 178,961,907</u>	<u>\$ 194,075,547</u>	<u> </u>
Nonemployer contributing entity share of collective net pension liability	13.1%	14.2%	15.9%	19.0%	19.5%	20.6%
Plan fiduciary net position as a percentage of total pension liability	71.6%	74.2%	74.6%	67.6%	64.6%	69.9%

* As described in Notes 1 and 18 GLWA was established on January 1, 2016. At that time, GLWA assumed a portion of the net position and liabilities of the City of Detroit Water and Sewerage Department. This reflects only the portion allocated to GLWA.

** The 2015 information is presented based on City of Detroit Water and Sewerage Department (DWSD) prior to the establishment of GLWA. The amounts shown represent GLWA's allocation, fiduciary net position and net pension liability. The actual employer contributions made by DWSD were \$42,888,889.

Note: This schedule is being built prospectively; ultimately, 10 years of data will be presented.

REQUIRED SUPPLEMENTARY INFORMATION

Nonemployer Contributing Entity Share of City of Detroit General Employees' Retirement System - Component II

Schedule of Changes in Net Pension Liability and Related Ratios - Water Fund

		Fiscal Year					
	2021	2020	2019	2018	2017	2016	
Measurement Date	2020*	2019*	2018*	2017*	2016*	2015**	
Share of Total Pension Liability							
Interest	\$ 13,006,533	\$ 13,155,758	\$ 13,111,573	\$ 13,560,348	\$ 14,475,348	\$ 18,422,673	
Differences between expected and							
actual experience	(3,679,680)	1,241,001	(114,927)	849,266	(1,815,233)	(153,112)	
Changes in assumptions	4,696,986	-	(7,651,537)	5,431,838	6,318,782	(7,093,982)	
Benefit changes	-	-	-	-	-	(54,618,440)	
Benefit payments, including refunds							
of employee contributions	(16,166,129)	(16,671,401)	(16,989,833)	(18,310,822)	(24,963,262)	(19,462,302)	
Net change	(2,142,290)	(2,274,642)	(11,644,724)	1,530,630	(5,984,365)	(62,905,163)	
Share of total pension liability, beginning of year	184,323,353	186,597,995	198,242,719	196,712,089	202,696,454	265,601,617	
Share of Total Pension Liability, End of Year	182,181,063	184,323,353	186,597,995	198,242,719	196,712,089	202,696,454	
Share of Plan Fiduciary Net Position							
Employer contributions	10,810,800	10,810,800	10,810,800	10,810,800	10,810,800	10,808,000	
Employee contributions	- · · · · · · · · · · · · · · · · · · ·	-	-	-	-	46,941	
Net investment income (loss)	(1,295,521)	3,295,871	10,878,360	13,912,782	(470,295)	6,194,355	
Benefit payments, including refunds							
of employee contributions	(16,166,129)	(16,671,401)	(16,989,833)	(18,310,822)	(24,963,262)	(19,462,302)	
Administrative expense		-	-	-	-	(7,633)	
Other changes	423,755	(42,826)	496,841	535,562	90,427	9,950,436	
Net change	(6,227,095)	(2,607,556)	5,196,168	6,948,322	(14,532,330)	7,529,797	
Share of plan fiduciary net position, beginning of year	136,679,979	139,287,535	134,091,367	127,143,045	141,675,375	134,145,578	
Share of Plan Fiduciary Net Position, End of Year	130,452,884	136,679,979	139,287,535	134,091,367	127,143,045	141,675,375	
SHARE OF NET PENSION LIABILITY	<u>\$51,728,179</u>	<u>\$ 47,643,374</u>	<u>\$ 47,310,460</u>	<u>\$ 64,151,352</u>	\$ 69,569,044	<u>\$ 61,021,079</u>	
Nonemployer contributing entity share of collective net pension liability - Water Fund	4.7%	5.1%	5.7%	6.8%	7.0%	7.4%	
Plan fiduciary net position as a percentage of total pension liability	71.6%	74.2%	74.6%	67.6%	64.6%	69.9%	

* As described in Notes 1 and 18 GLWA was established on January 1, 2016. At that time, GLWA assumed a portion of the net position and liabilities of the City of Detroit Water and Sewerage Department. This reflects only the portion allocated to GLWA.

** The 2015 information is presented based on City of Detroit Water and Sewerage Department (DWSD) prior to the establishment of GLWA. The amounts shown represent GLWA's allocation, fiduciary net position and net pension liability. The actual employer contributions made by DWSD were \$18,440,222.

Note: This schedule is being built prospectively; ultimately, 10 years of data will be presented.

REQUIRED SUPPLEMENTARY INFORMATION

Nonemployer Contributing Entity Share of City of Detroit General Employees' Retirement System - Component II

Schedule of Changes in Net Pension Liability and Related Ratios - Sewage Disposal Fund

	Fiscal Year					
	2021	2020	2019	2018	2017	2016
Measurement Date	2020*	2019*	2018*	2017*	2016*	2015**
Share of Total Pension Liability						
Interest	\$ 23,277,566	\$ 23,544,630	\$ 23,465,553	\$ 24,268,718	\$ 25,906,278	\$ 32,970,738
Differences between expected and						
actual experience	(6,585,459)	2,220,999	(205,683)	1,519,917	(3,248,690)	(274,022)
Changes in assumptions	8,406,113	-	(13,693,822)	9,721,266	11,308,613	(12,695,976)
Benefit changes	-	-	-	-	-	(97,749,668)
Benefit payments, including refunds						
of employee contributions	(28,932,239)	(29,836,515)	(30,406,407)	(32,770,558)	(44,676,314)	(34,831,342)
Net change	(3,834,019)	(4,070,886)	(20,840,359)	2,739,343	(10,710,113)	(112,580,270)
Share of total pension liability, beginning of year	329,880,290	333,951,176	354,791,535	352,052,192	362,762,305	475,342,575
Share of Total Pension Liability, End of Year	326,046,271	329,880,290	333,951,176	354,791,535	352,052,192	362,762,305
Share of Plan Fiduciary Net Position						
Employer contributions	19,347,900	19,347,900	19,347,900	19,347,900	19,347,900	19,342,889
Employee contributions	-	-	-	-	-	84,010
Net investment income (loss)	(2,318,571)	5,898,562	19,468,812	24,899,462	(841,679)	11,085,930
Benefit payments, including refunds					x	
of employee contributions	(28,932,239)	(29,836,515)	(30,406,407)	(32,770,558)	(44,676,314)	(34,831,342)
Administrative expense	-	-	-	-	-	(13,661)
Other changes	758,387	(76,643)	889,186	958,487	161,836	17,808,122
Net change	(11,144,523)	(4,666,696)	9,299,491	12,435,291	(26,008,257)	13,475,948
Share of plan fiduciary net position, beginning of year	244,613,775	249,280,471	239,980,980	227,545,689	253,553,946	240,077,998
Share of Plan Fiduciary Net Position, End of Year	233,469,252	244,613,775	249,280,471	239,980,980	227,545,689	253,553,946
SHARE OF NET PENSION LIABILITY	<u>\$ 92,577,019</u>	<u>\$ 85,266,515</u>	\$ 84,670,705	<u>\$ 114,810,555</u>	<u>\$ 124,506,503</u>	<u>\$ 109,208,359</u>
Nonemployer contributing entity share of collective net pension liability - Sewage Disposal Fund	8.4%	9.1%	10.2%	12.2%	12.5%	13.2%
Plan fiduciary net position as a percentage of total pension liability	71.6%	74.2%	74.6%	67.6%	64.6%	69.9%

* As described in Notes 1 and 18 GLWA was established on January 1, 2016. At that time, GLWA assumed a portion of the net position and liabilities of the City of Detroit Water and Sewerage Department. This reflects only the portion allocated to GLWA.

** The 2015 information is presented based on City of Detroit Water and Sewerage Department (DWSD) prior to the establishment of GLWA. The amounts shown represent GLWA's allocation, fiduciary net position and net pension liability. The actual employer contributions made by DWSD were \$24,448,667.

Note: This schedule is being built prospectively; ultimately, 10 years of data will be presented.

REQUIRED SUPPLEMENTARY INFORMATION Nonemployer Contributing Entity Share of City of Detroit General Employees' Retirement System - Component II Schedule of Contributions

	 Fiscal Year								
	 2021*		2020*		2019*		2018*	 2017*	 2016*
Total Business-type Activities									
Contractually required contribution**	\$ 30,158,700	\$	30,158,700	\$	30,158,700	\$	30,158,700	\$ 30,158,700	\$ 30,158,700
Actual contribution	 30,158,700		30,158,700		30,158,700		30,158,700	 30,158,700	 30,158,700
Contribution deficiency (excess)	\$ -	\$	-	\$	-	\$	-	\$ -	\$ -
Water Fund									
Contractually required contribution**	\$ 10,810,800	\$	10,810,800	\$	10,810,800	\$	10,810,800	\$ 10,810,800	\$ 10,810,800
Actual contribution	 10,810,800		10,810,800		10,810,800		10,810,800	 10,810,800	 10,810,800
Contribution deficiency (excess)	\$ -	\$	-	\$	-	\$	-	\$ -	\$ -
Sewage Disposal Fund									
Contractually required contribution**	\$ 19,347,900	\$	19,347,900	\$	19,347,900	\$	19,347,900	\$ 19,347,900	\$ 19,347,900
Actual contribution	 19,347,900		19,347,900		19,347,900		19,347,900	 19,347,900	 19,347,900
Contribution deficiency (excess)	\$ -	\$	-	\$	-	\$	-	\$ -	\$ -

* As described in Notes 1 and 18 GLWA was established on January 1, 2016. At that time GLWA assumed a portion of the net position and liabilities of the City of Detroit Water and Sewerage Department. This reflects only the portion allocated to GLWA.

** Contributions are determined by the provisions of the Plan of Adjustment and are not actuarially determined.

Note: This schedule is being built prospectively; ultimately, 10 years of data will be presented.



Nonemployer Contributing Entity Share of City of Detroit General Employees' Retirement System – Component II

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION For the Year Ended June 30, 2021

Changes in Assumptions

In 2016, amounts reported as changes in assumptions resulted from adjustment of the discount rate from 7.61 percent to 7.23 percent.

In 2017, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.23 percent to 6.91 percent.

In 2018, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 6.91 percent to 7.38 percent.

In 2020, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.38 percent to 7.06 percent.

Note: Great Lakes Water Authority is required to present the last ten fiscal years of data; however, accounting standards allow the presentation of as many years as are available until ten fiscal years are presented.



SUPPLEMENTARY INFORMATION

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COMBINING SCHEDULE OF NET POSITION - WATER FUND

As of June 30, 2021

	Water Operations	Water Improvement and Extension	Improvement Construction	
Assets				
Current Assets				
Cash and cash equivalents	\$ 93,595,948	\$ 46,953,111	\$ 22,217,368	\$ 162,766,427
Restricted cash and cash equivalents	55,325,792	550,243	9,800,995	65,677,030
Restricted cash for the benefit of DWSD	3,144,400	-	-	3,144,400
Investments	27,502,507	158,045,763	4,993,688	190,541,958
Restricted investments	2,932,400	-	-	2,932,400
Receivables				
Billed	48,694,817	-	-	48,694,817
Unbilled	30,066,884	-	-	30,066,884
Other	85,494	-	-	85,494
Allowance for doubtful accounts	(11,562,519)	-	-	(11,562,519)
Due from other governments	11,889,748	-	-	11,889,748
Due from other funds	1,539	1,680,681	1,104,124	2,786,344
Due from other water funds	270,834	6,892,952	1,374,237	8,538,023
Contractual obligation receivable	16,558,716	-	-	16,558,716
Prepaid items and other assets	7,105,660	495,579	-	7,601,239
Inventories	794,521	-	-	794,521
Total Current Assets	286,406,741	214,618,329	39,490,412	540,515,482
Noncurrent Assets				
Restricted cash and cash equivalents	2,519,127	-	-	2,519,127
Restricted investments	8,651,762	-	-	8,651,762
Contractual obligation receivable	552,093,376	-	-	552,093,376
Prepaid lease	11,250,000	-	-	11,250,000
Assets not subject to depreciation	498,010,970	-	-	498,010,970
Capital assets being depreciated, net	1,324,554,087	-	-	1,324,554,087
Intangible assets, net	94,219,373	-	-	94,219,373
Prepaid insurance on debt	7,304,243	-	-	7,304,243
Total noncurrent assets	2,498,602,938			2,498,602,938
Total Assets	2,785,009,679	214,618,329	39,490,412	3,039,118,420
Deferred outflows of resources				
Deferred charge on refunding	44,677,823	-	-	44,677,823
Deferred pension amounts	22,112,642			22,112,642
Total Deferred Outflows of Resources	66,790,465			66,790,465

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	Water Operations	Water Improvement and Extension	Water Construction Fund	Water Total
Liabilities				
Current Liabilities				
Accounts and contracts payable	\$ 20,488,920	\$ 5,768,630	\$ 26,781,780	\$ 53,039,330
Accrued salaries, wages and benefits	4,892,033	-	-	4,892,033
Other accrued liabilities	6,958,556	-	-	6,958,556
Due to other governments	15,693,993	-	-	15,693,993
Due to other funds	162,368	-	-	162,368
Due to other water funds	6,892,952	1,374,237	270,834	8,538,023
Interest payable	36,621,768	-	-	36,621,768
Current portion of:				
Revenue bonds and loans	32,500,450	-	-	32,500,450
Raw water rights obligatin	2,734,246	-	-	2,734,246
Obligation payable	194,242	-	-	194,242
Regional system lease	5,454,878	-	-	5,454,878
Accrued compensated absences	2,768,026	-	-	2,768,026
Accrued workers' compensation	255,817	-	-	255,817
Claims and judgments	100,000	-	-	100,000
Total Current Liabilities	135,718,249	7,142,867	27,052,614	169,913,730
Noncurrent Liabilities				
Revenue bonds and loans	2,407,391,624	-	-	2,407,391,624
Raw water rights obligation	95,361,056	-	-	95,361,056
Obligation payable	16,542,293	-	-	16,542,293
Regional system lease	405,782,406	-	-	405,782,406
Accrued compensated absences	2,013,780	-	-	2,013,780
Accrued workers' compensation	75,000	-	-	75,000
Claims and judgments	50,000	-	-	50,000
Other liabilities	2,000,000	-	-	2,000,000
Net pension liability	51,728,179	-	-	51,728,179
Total Noncurrent Liabilities	2,980,944,338			2,980,944,338
Total Liabilities	3,116,662,587	7,142,867	27,052,614	3,150,858,068
Deferred Inflows of Resources				
Deferred gain on refunding	52,250,187	-	-	52,250,187
Deferred amounts for swap terminations	66,164		<u> </u>	66,164
Total Deferred Inflows of Resources	52,316,351		<u> </u>	52,316,351
Net Position				
Net investment in capital assets	(203,789,808)	-	12,437,798	(191,352,010)
Restricted for debt service	23,688,943	-	-	23,688,943
Restricted for payment assistance program	4,614,294	-	-	4,614,294
Unrestricted (deficit)	(141,692,223)	207,475,462	<u> </u>	65,783,239
TOTAL NET POSITION	<u>\$ (317,178,794</u>)	<u>\$ 207,475,462</u>	<u>\$ 12,437,798</u>	<u>\$ (97,265,534</u>)



COMBINING SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION - WATER FUND For the Year Ended June 30, 2021

	Water Operations	Water Improvement and Extension	Water Construction Fund	Water Total
Operating Revenues				
Wholesale customer charges	\$ 322,423,768	\$-	\$-	\$ 322,423,768
Local system charges	21,925,500	-	-	21,925,500
Other revenues	265,822			265,822
Total Operating Revenues	344,615,090			344,615,090
Operating Expenses				
Operating expenses before depreciation and amortization				
Personnel	43,889,495	-	-	43,889,495
Contractual services	35,468,574	4,942,237	-	40,410,811
Utilities - gas	1,070,887	-	-	1,070,887
Utilities - electric	27,311,611	-	-	27,311,611
Utilities - sewage	444,282	-	-	444,282
Utilities - water	1,446			1,446
Chemicals	-	-	-	
	6,028,141	-	-	6,028,141
Supplies and other expenses	9,158,990	-	-	9,158,990
Capital program allocation	(2,123,060)	-	-	(2,123,060)
Intergovernmental reimbursements	(2,409,511)	(145,000)	-	(2,554,511)
Total Operating Expenses Before				
Depreciation and Amortization	118,840,855	4,797,237	-	123,638,092
Depreciation	123,271,541	-	-	123,271,541
Amortization of intangible assets	3,566,664			3,566,664
Total Operating Expenses	245,679,060	4,797,237		250,476,297
Operating Income (Loss)	98,936,030	(4,797,237)		94,138,793
Nonoperating Revenues (Expenses)				
Earnings on investments	656,239	3,539,066	19,800	4,215,105
Net decrease in fair value of investments	(510,538)	(2,931,504)	(4,145)	(3,446,187)
Interest on loan and obligations receivable	25,474,904	(2,001,001)	(1,110)	25,474,904
Interest expense	(128,257,367)	_		(128,257,367)
Amortization of debt related items and cost of issuance	15,988,278	-	-	15,988,278
		-	-	
Legacy pension expense	(8,075,457)	-	-	(8,075,457)
WRAP (Water Residential Assistance Program)	(593,206)	-	-	(593,206)
Other	(176,909)	-	-	(176,909)
Capital outlay	136,427,149	(11,893,172)	(124,533,977)	-
Loss on disposal of capital assets	(123,932)			(123,932)
Total Nonoperating Revenues (Expenses)	40,809,161	(11,285,610)	(124,518,322)	(94,994,771)
Income (Loss) Before Transfers	139,745,191	(16,082,847)	(124,518,322)	(855,978)
Transfer in	4,626,673	35,375,375	116,150,221	156,152,269
Transfer out	(55,582,216)	(100,569,683)	(370)	(156,152,269)
Change in net position	88,789,648	(81,277,155)	(8,368,471)	(855,978)
NET POSITION (DEFICIT), Beginning of Year	(405,968,442)	288,752,617	20,806,269	(96,409,556)
NET POSITION (DEFICIT), END OF YEAR	<u>\$ (317,178,794</u>)	<u>\$ 207,475,462</u>	<u>\$ 12,437,798</u>	<u>\$ (97,265,534)</u>

Note: Transfers in (out) are used for recording financial activity related to borrowing proceeds and MBO requirements.

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GREAT LAKES WATER AUTHORITY

COMBINING SCHEDULE OF NET POSITION - SEWAGE DISPOSAL FUND

As of June 30, 2021

A	Sewer Operations	Sewer Improvement and Extension	Sewer Construction Fund	Sewage Disposal Total
Assets Current Assets				
Cash and cash equivalents	\$ 138,319,740	\$ 37,944,126	\$ 15,320,839	\$ 191,584,705
Restricted cash and cash equivalents	⁵ 136,319,740 75,327,683	\$ 37,944,120 22,866	⁵ 10,320,839 10,158,465	\$ 191,584,705 85,509,014
Restricted cash for the benefit of DWSD	2,919,797	22,000	10,130,403	2,919,797
Investments	43,982,053	- 83,412,272	- 4,993,688	132,388,013
Restricted investments	28,758,582	03,412,212	4,993,000	28,758,582
Receivables:	20,750,502	-	-	20,750,502
Billed				
	59,552,759 24,320,796	-	-	59,552,759 24,320,796
Unbilled Other		- 112,489	-	24,320,796 489,412
	376,923	112,409	-	(39,321,754)
Allowance for doubtful accounts	(39,321,754)	-	-	, ,
Due from other governments	1,351,111	-	-	1,351,111
Due from other funds	-	-	162,368	162,368
Due from other sewage disposal funds	70,934	4,121,750	-	4,192,684
Contractual obligation receivable	14,637,184	-	-	14,637,184
Loan receivable - DWSD	8,296,578	-	-	8,296,578
Prepaid items and other assets Inventories	3,875,337 7,000,631	267,966	-	4,143,303 7,000,631
Total Current Assets	369,468,354	125,881,469	30,635,360	525,985,183
Noncurrent assets				
Restricted cash and cash equivalents	2,876,374	-	-	2,876,374
Restricted investments	29,882,148	-	-	29,882,148
Contractual obligation receivable	384,718,443	-	-	384,718,443
Prepaid lease	13,750,000	-	_	13,750,000
Assets not subject to depreciation	315,474,451	-	-	315,474,451
Capital assets being depreciated, net	2,221,472,660	-	-	2,221,472,660
Intangible assets, net	4,433,681			4,433,681
Prepaid insurance on debt	11,053,199	-	-	11,053,199
Total Noncurrent Assets	2,983,660,956			2,983,660,956
Total Assets	3,353,129,310	125,881,469	30,635,360	3,509,646,139
Deferred Outflows of Resources				
Deferred charge on refunding	118,709,227	-	-	118,709,227
Deferred pension amounts	39,574,610			39,574,610
Total Deferred Outflows of Resources	158,283,837			158,283,837

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	Sewer Operations	Sewer Improvement and Extension	Sewer Construction Fund	Sewage Disposal Total
Liabilities				
Current Liabilities				
Accounts and contracts payable	\$ 12,402,617	\$ 1,379,097	\$ 18,400,371	\$ 32,182,085
Accrued salaries, wages and benefits	1,136,565	-	-	1,136,565
Other accrued liabilities	4,615,255	-	-	4,615,255
Due to other governments	3,750,000	-	-	3,750,000
Due to other funds	19,271	2,117,470	649,603	2,786,344
Due to other sewage disposal funds	4,079,968	-	112,716	4,192,684
Interest payable	35,189,612	-	-	35,189,612
Current portion of:				
Revenue bonds and loans	87,409,283	-	-	87,409,283
Obligation payable	436,911	-	-	436,911
Regional system lease	6,667,073	-	-	6,667,073
Accrued compensated absences	729,241	-	-	729,241
Lease payable	189,119	-	-	189,119
Claims and judgments	1,825,000	<u> </u>		1,825,000
Total Current Liabilities	158,449,915	3,496,567	19,162,690	181,109,172
Noncurrent Liabilities				
Revenue bonds and loans	2,912,505,035	-	-	2,912,505,035
Obligation payable	37,208,869	-	-	37,208,869
Regional system lease	495,956,275	-	-	495,956,275
Long-term lease payable	4,258,178			4,258,178
Accrued compensated absences	117,881	-	-	117,881
Claims and judgments	7,500,000	-	-	7,500,000
Other liabilities	5,500,000	-	-	5,500,000
Net pension liability	92,577,019			92,577,019
Total Noncurrent Liabilities	3,555,623,257			3,555,623,257
Total Liabilities	3,714,073,172	3,496,567	19,162,690	3,736,732,429
Deferred Inflows of Resources				
Deferred gain on refunding	44,046,097	-	-	44,046,097
Deferred amounts for swap terminations	18,041			18,041
Total Deferred Inflows of Resources	44,064,138	<u> </u>		44,064,138
Net Position				
Net investment in capital assets	(122,133,133)	-	11,472,670	(110,660,463)
Restricted for debt service	90,855,751	-	-	90,855,751
Restricted for payment assistance program	6,428,815	-	-	6,428,815
Unrestricted (deficit)	(221,875,596)	122,384,902		(99,490,694)
TOTAL NET POSITION	<u>\$ (246,724,163)</u>	<u>\$ 122,384,902</u>	<u>\$ 11,472,670</u>	<u>\$ (112,866,591</u>)



COMBINING SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION - SEWAGE DISPOSAL FUND For the Year Ended June 30, 2021

	Course	Sewer	Sewer	
	Sewer Operations	Improvement and Extension	Construction Fund	Sewage Disposal Total
Operating Revenues				Total
Wholesale customer charges	\$ 267,567,816	\$-	\$ -	\$ 267,567,816
Local system charges	187,959,700	÷ _	÷ -	187,959,700
Industrial waste charges	8,004,939	-	-	8,004,939
Pollutant surcharges	6,719,964	-	-	6,719,964
Other revenues	501,121			501,121
Total Operating Revenues	470,753,540	<u> </u>	<u> </u>	470,753,540
Operating Expenses				
Operating expenses before depreciation and amortization				
Personnel	63,055,636	-	-	63,055,636
Contractual services	56,731,877	6,181,337	-	62,913,214
Utilities - gas	4,634,898	-	-	4,634,898
Utilities - electric	14,670,298	-	-	14,670,298
Utilities - sewage	1,630,219	-	-	1,630,219
Utilities - water	2,986,013	-	-	2,986,013
Chemicals	7,953,995	-	-	7,953,995
Supplies and other expenses	21,938,081	-	-	21,938,081
Capital program allocation	(1,068,749)	-	-	(1,068,749)
Intergovernmental reimbursements	(338,212)	(273,969)	-	(612,181)
Total Operating Expenses Before				
Depreciation and Amortization	172,194,056	5,907,368	-	178,101,424
Depreciation	150,772,065	-	-	150,772,065
Amortization of intangible assets	109,926			109,926
Total Operating Expenses	323,076,047	5,907,368	<u> </u>	328,983,415
Operating Income (Loss)	147,677,493	(5,907,368)		141,770,125
Nonoperating Revenues (Expenses)				
Earnings on investments	1,291,733	1,510,308	23,103	2,825,144
Net decrease in fair value of investments	(1,091,351)	(1,239,466)	(3,621)	(2,334,438)
Interest on loan and obligations receivable	18,247,607	-	-	18,247,607
Interest expense	(135,227,647)	-	-	(135,227,647)
Amortization of debt related items and cost of issuance	(3,022,639)	-	-	(3,022,639)
Legacy pension expense	(14,452,504)	-	-	(14,452,504)
WRAP (Water Residential Assistance Program)	(924,247)	-	-	(924,247)
Other	(298,940)	-	-	(298,940)
Capital outlay	88,819,011	(9,120,833)	(79,698,178)	-
Loss on disposal of capital assets	(241,105)			(241,105)
Total Nonoperating Revenues (Expenses)	(46,900,082)	(8,849,991)	(79,678,696)	(135,428,769)
Income (Loss) Before Transfers	100 777 444	(44 757 050)	(70 670 000)	6 944 959
and Capital Contributions	100,777,411	(14,757,359)	(79,678,696)	6,341,356
Transfer in	6,533,351	62,300,514	67,840,410	136,674,275
Transfer out	(84,291,720)	(52,382,388)	(167)	(136,674,275)
Capital Contributions	5,960,000			5,960,000
Change in net position	28,979,042	(4,839,233)	(11,838,453)	12,301,356
NET POSITION (DEFICIT), Beginning of Year	(275,703,205)	127,224,135	23,311,123	(125,167,947)
NET POSITION (DEFICIT), END OF YEAR	<u>\$ (246,724,163</u>)	<u>\$ 122,384,902</u>	<u>\$ 11,472,670</u>	<u>\$ (112,866,591</u>)

Note: Transfers in (out) are used for recording financial activity related to borrowing proceeds and MBO requirements.

The accompanying notes to the supplementary information are an integral part of this schedule.



SCHEDULE OF INTERFUND RECEIVABLES AND PAYABLES

For the Year Ended June 30, 2021

Interfund balances result from the time lag between the dates interfund goods and services are provided or reimbursable expenditures occur and when the payment between funds are made. Interfund balances for the year ended June 30, 2021 consisted of the following:

		Sewage Disposal Fund due to Water Fund										
	Sewer Operations			er Improvement nd Extension		Sewer truction Fund		Total				
Water Operations Water Improvement and Extension Water Construction Fund	\$	- - 19,271	\$	1,539 1,680,681 435,250	\$	- - 649,603	\$	1,539 1,680,681 1,104,124				
TOTALS	\$	19,271	\$	2,117,470	\$	649,603	\$	2,786,344				

	Water Operations		Water Improvement and Extension		Water Bo	ond Fund	Total		
Sewer Operations Sewer Improvement and Extension Sewer Construction Fund	\$	- - 162,368	\$	- - -	\$	- - -	\$	- - 162,368	
TOTALS	\$	162,368	\$		\$	_	\$	162,368	

SCHEDULE OF OPERATING EXPENSES FOR WATER OPERATIONS - BUDGET TO ACTUAL

For the Year Ended June 30, 2021

	Original Budget	Amended Budget	Administrative and Centralized Services Reclassification	Final Amended Budget	Actual	Variance Under (Over) Amended Budget	Percent Under (Over) Amended Budget
Operating Expenses							
Personnel	\$ 72,461,431	\$ 73,336,792	\$ (25,876,915)	\$ 47,459,877	\$ 43,889,495	\$ 3,570,382	7.52%
Contractual services	79,428,425	76,555,052	(31,896,344)	44,658,708	35,468,574	9,190,134	20.58%
Utilities	26,405,424	28,859,024	(130,820)	28,728,204	28,828,226	(100,022)	-0.35%
Chemicals	5,053,900	6,023,900	-	6,023,900	6,028,141	(4,241)	-0.07%
Supplies and other expenses	24,379,546	19,226,760	(7,681,670)	11,545,090	9,158,990	2,386,100	20.67%
Capital program allocation	(2,121,915)	(2,120,769)	-	(2,120,769)	(2,123,060)	2,291	-0.11%
Intergovernmental reimbursements	(3,074,700)	(4,173,824)	-	(4,173,824)	(2,409,511)	(1,764,313)	42.27%
Centralized services allocation	(53,415,100)	(52,176,000)	52,176,000	-	-	-	0.00%
Administrative services allocation	(15,854,600)	(15,145,000)	15,145,000	-	-	-	0.00%
Unallocated reserve	3,864,889	3,741,365	(1,735,251)	2,006,114		2,006,114	100.00%
TOTAL OPERATING EXPENSES							
BUDGET BASIS	\$ 137,127,300	<u>\$ 134,127,300</u>	\$-	\$ 134,127,300	\$ 118,840,855	\$ 15,286,445	11.40%

Note: Centralized and administrative services allocations have been applied to the expense categories above for presentation of the amended budget to the actual amounts.

The accompanying notes to the supplementary information are an integral part of this schedule.

SCHEDULE OF OPERATING EXPENSES FOR SEWAGE DISPOSAL OPERATIONS - BUDGET TO ACTUAL For the Year Ended June 30, 2021

	Original Budget	Amended Budget	Administrative and Centralized Services Reclassification	Final Amended Budget	Actual	Variance Under (Over) Amended Budget	Percent Under (Over) Amended Budget
Operating Expenses							
Personnel	\$ 37,871,716	\$ 37,762,892	\$ 25,876,91	\$ 63,639,807	\$ 63,055,636	\$ 584,171	0.92%
Contractual services	26,725,021	23,421,021	31,896,344	55,317,365	56,731,877	(1,414,512)	-2.56%
Utilities	25,531,600	23,523,600	130,820	23,654,420	23,921,428	(267,008)	-1.13%
Chemicals	8,365,940	8,338,340		. 8,338,340	7,953,995	384,345	4.61%
Supplies and other expenses	14,242,252	16,368,851	7,562,870	23,931,721	21,938,081	1,993,640	8.33%
Capital program allocation	(1,325,784)	(1,325,784)		· (1,325,784)	(1,068,749)	(257,035)	19.39%
Intergovernmental reimbursements	(338,200)	(338,200)		· (338,200)	(338,212)	12	0.00%
Centralized services allocation	53,415,100	52,176,000	(52,176,000) -	-	-	0.00%
Administrative services allocation	15,854,600	15,145,000	(15,145,000) -	-	-	0.00%
Unallocated reserve	4,603,855	7,224,280	1,735,25	8,959,531		8,959,531	100.00%
Total operating expenses before depreciation							
and amortization financial reporting basis	184,946,100	182,296,000	(118,800) 182,177,200	172,194,056	9,983,144	
Warehouse lease [1]			118,800	118,800	118,759	41	0.03%
TOTAL OPERATING EXPENSES BUDGET BASIS	\$ 184,946,100	\$ 182,296,000	\$	· \$ 182,296,000	\$ 172,312,815	\$ 9,983,185	5.48%

[1] The warehouse lease is an expense for budget purposes. For financial reporting it is accounted for under GASB 87 as a capitalized lease.

Note: Centralized and administrative services allocations have been applied to the expense categories above for presentation of the amended budget to the actual amounts.

The accompanying notes to the supplementary information are an integral part of this schedule.

GREAT LAKES WATER AUTHORITY

SCHEDULE OF OPERATING EXPENSES FOR COMBINED WATER AND SEWAGE DISPOSAL OPERATIONS - BUDGET TO ACTUAL For the Year Ended June 30, 2021

Original Budget	Final Amended Budget	Actual	Under (Over) Amended Budget	Under (Over) Amended Budget
10,333,147	\$ 111,099,684	\$ 106,945,131	\$ 4,154,553	3.74%
06,153,446	99,976,073	92,200,451	7,775,622	7.78%
51,937,024	52,382,624	52,749,654	(367,030)	-0.70%
13,419,840	14,362,240	13,982,136	380,104	2.65%
38,621,798	35,476,811	31,097,071	4,379,740	12.35%
(3,447,699)	(3,446,553)	(3,191,809)	(254,744)	7.39%
(3,412,900)	(4,512,024)	(2,747,723)	(1,764,301)	39.10%
-	-	-	-	0.00%
-	-	-	-	0.00%
8,468,744	10,965,645		10,965,645	100.00%
322,073,400	316,304,500	291,034,911	25,269,589	
	118,800	118,759	41	0.03%
3	-	8,468,744 <u>10,965,645</u> 322,073,400 316,304,500	8,468,744 <u>10,965,645</u> 322,073,400 316,304,500 291,034,911	8,468,744 10,965,645 10,965,645 322,073,400 316,304,500 291,034,911 25,269,589



SCHEDULE OF REVENUE REQUIREMENT BUDGET TO ACTUAL - WATER OPERATIONS For the Year Ended June 30, 2021

The Great Lakes Water Authority Board adopts a budget using a revenue requirement method for its operating funds that aligns with water and wastewater revenue charges. This method applies an accrual basis of accounting for revenues and operating expenses in addition to a cash basis of accounting for other commitments, such as debt service, Detroit General Retirement closed pension commitment, lease payment, reserves and certain other payments. The schedule below presents the Board adopted budgeted, adjusted for amendments, for comparison with actual revenues, expenses, and other payments. Overall, the Water Operations experienced a positive variance of approximately \$13.6 million.

	2021 Adopted Budget	2021 Amended Budget	2021 Actual	Variance Over (Under) Amended Budget
Revenues Revenue from Charges Suburban Wholesale Customers [1] Local system charges Total Revenue from Charges Other Revenue [2] Investment earnings [3]	\$ 314,252,200 22,555,400 336,807,600 - 4,834,400	\$ 317,033,600 21,925,500 338,959,100 229,000 3,955,700	\$ 315,771,515 21,925,500 337,697,015 267,562 4,195,305	\$ (1,262,085)
Total Revenues	\$ 341,642,000	<u>\$ 343,143,800</u>	<u>\$ 342,159,882</u>	<u>\$ (983,918</u>)
Revenue Requirements Operations and Maintenance [4] General Retirement System Legacy Pension Debt Service General Retirement System Accelerated Pension Water Residential Assistance Program Contribution Contribution to Operating Reserves Regional System Lease Transfer to the Improvement & Extension Fund	\$ 137,127,300 6,048,000 143,189,900 6,268,300 1,669,400 876,600 22,500,000 23,962,500	\$ 134,127,300 6,048,000 137,436,000 6,268,300 1,669,400 - 22,500,000 35,094,800	\$ 118,840,855 6,048,000 138,100,407 6,268,300 1,669,400 - 22,500,000 35,094,800	\$ (15,286,445) - 664,407 - - - - -
Total Revenue Requirements	<u>\$ 341,642,000</u>	<u>\$ 343,143,800</u>	<u>\$ 328,521,762</u>	<u>\$ (14,622,038</u>)
Revenue Requirement Variance	<u>\$</u>	<u>\$</u> -	<u>\$ 13,638,120</u>	<u>\$ 13,638,120</u>

[1] Revenue from Charges - Suburban Wholesale Customers presented in this schedule differs from those presented on the Statement of Revenues, Expenses and Changes in Net position due to \$6,652,253 of revenue which was credited for the KWA debt service which is a noncash transaction that is the lease payment on the raw water rights.

[2] Other Revenue includes other operating revenues and other nonoperating revenues for the Water Operations Fund. Numbers will not match combining schedules as other nonoperating is net of income and expenses.

[3] Investment earnings excludes construction fund.

[4] See the Schedule of Operating Expenses for Water Operations - Budget to Actual. Operations and Maintenance expenses in this schedule are based on activities relating only to the Water Operations Fund.



SCHEDULE OF REVENUE REQUIREMENT BUDGET TO ACTUAL - SEWAGE DISPOSAL OPERATIONS For the Year Ended June 30, 2021

The Great Lakes Water Authority Board adopts a budget using a revenue requirement method for its operating funds that aligns with water and wastewater revenue charges. This method applies an accrual basis of accounting for revenues and operating expenses in addition to a cash basis of accounting for other commitments, such as debt service, Detroit General Retirement closed pension commitment, lease payment, reserves and certain other payments. The schedule below presents the Board adopted budgeted, adjusted for amendments, for comparison with actual revenues, expenses, and other payments. Overall, the Sewage Disposal Operations had a positive variance of approximately \$11.9 million.

	2021 Adopted Budget	2021 Amended Budget	2021 Actual	Variance Over (Under) Amended Budget
Revenues				
Revenue from Charges				
Suburban Wholesale Customers	\$ 271,051,800	\$ 266,493,500	\$ 267,567,816	\$ 1,074,316
Suburban Wholesale Other	5,960,000	5,960,000	5,960,000	-
Local System Charges	190,112,100	187,959,700	187,959,700	-
Industrial Waste Control	8,775,400	7,684,700	8,004,939	320,239
Pollutant Surcharges	5,262,800	6,107,600	6,719,964	612,364
Total Revenue from Charges	481,162,100	474,205,500	476,212,419	2,006,919
Other Revenue [1]	-	2,195,300	2,217,405	22.105
Investment earnings [2]	5,589,200	2,778,100	2,802,041	23,941
Total Revenues	<u>\$ 486,751,300</u>	<u>\$ 479,178,900</u>	<u>\$ 481,231,865</u>	<u>\$ 2,052,965</u>
Revenue Requirements				
Operations and Maintenance [3]	184,946,100	182,296,000	172,312,815	(9,983,185)
General Retirement System Legacy Pension	10,824,000	10,824,000	10,824,000	-
Debt Service	209,739,900	201,780,400	201,945,083	164,683
General Retirement System Accelerated Pension	11,620,700	11,620,700	11,620,700	-
Water Residential Assistance Program Contribution	2,415,100	2,415,100	2,415,100	-
Regional System Lease	27,500,000	27,500,000	27,500,000	-
Transfer to the Improvement & Extension Fund [4]	39,705,500	42,742,700	42,742,700	
Total Revenue Requirements	<u>\$ 486,751,300</u>	<u>\$ 479,178,900</u>	<u>\$ 469,360,398</u>	<u>\$ (9,818,502</u>)
Revenue Requirement Variance	<u>\$</u> -	<u>\$</u> -	<u> </u>	<u>\$ 11,871,467</u>

[1] Other Revenue includes other operating revenues and other nonoperating revenues for the Sewer Operations Fund. Numbers will not match combining schedules as other nonoperating is net of income and expenses.

[2] Investment earnings excludes construction fund.

[3] See the Schedule of Operating Expenses for Sewage Disposal Operations - Budget to Actual. Operations and Maintenance expenses in this schedule are based on activities relating only to the Sewer Operations Fund.

[4] DWSD loan receivable payments are transferred directly to the Improvement & Extension Fund. They are excluded from this schedule because they are not part of the revenue requirement methodology used to set charges.



SCHEDULE OF REVENUE REQUIREMENT TO STATEMENT OF REVENUES,

EXPENSES AND CHANGES IN NET POSITION CROSSWALK

For the Year Ended June 30, 2021

The Great Lakes Water Authority establishes a Revenue Requirement budget for the purpose of establishing charges for services which follows a modified cash basis of accounting. Conversely, the annual financial report is prepared in accordance with Generally Accepted Accounting Principles for enterprise funds of a local government. Because the budget and the financial report are prepared using different bases of accounting, a crosswalk is prepared to reconcile fiscal year financial performance from the budget basis of accounting to the financial statement basis of accounting.

Key areas of reconciliation include the following:

• Defined Benefit Pension related to the City of Detroit General Employees Retirement System. Annual contributions are an expense for the budget basis while the accrual basis financial report reflects the current year payment as a deferred outflow.

• Debt Service (principal and interest) is an expense for the budget basis while the accrual basis financial report treats interest as an expense and principal payments as a reduction of a liability.

• Lease payments (principal and interest) are an expense for the budget basis while the accrual basis financial report treats interest as an expense and principal payments as a reduction of a liability.

• Contributions to the Regional System Improvement & Extension Fund are an expense for the budget basis while the accrual basis financial report treats this activity as an increase in assets.

• Depreciation and amortization are not a components of the budget basis while the accrual basis financial report treats these as an expense.

	Water	Sewage Disposal	Combined
Revenue Requirement Variance from Schedule of Revenue Requirement	\$ 13,638,120	\$ 11,871,467	\$ 25,509,587
Budgetary categories adjustments to financial reporting basis			
Pension delayed accounting election adjustments			
Current year pension transfers/ payments recorded as deferral	10,810,800	19,347,900	30,158,700
Prior year pension contribution accounted for in current year	(8,075,457)	(14,452,504)	(22,527,961)
Administrative prepaid adjustment	451,351	807,776	1,259,127
Debt service	57,276,393	106,999,056	164,275,449
Accelerated pension and B&C notes obligation	184,984	416,110	601,094
Regional system lease	5,250,648	6,417,459	11,668,107
Right to use lease - warehouse	-	85,193	85,193
Water Residential Assistance Program (WRAP)	1,076,194	1,490,853	2,567,047
Improvement & Extension fund transfers	35,094,800	42,742,700	77,837,500
Nonbudgeted financial reporting categories adjustments			
Depreciation and amortization	(126,838,205)	(150,881,991)	(277,720,196)
Amortization - debt related	15,988,278	(3,022,639)	12,965,639
Improvement & Extension operating expenses	(4,797,237)	(5,907,368)	(10,704,605)
Gain (loss) on disposal of capital assets	(123,932)	(241,105)	(365,037)
Raw water rights obligation	2,633,672	-	2,633,672
Investment earnings for construction fund	19,800	23,103	42,903
Interest on DWSD note receivable	-	635,284	635,284
Invesment earnings unrealized gain (loss)	(3,446,187)	(2,334,438)	(5,780,625)
Other temporary differences		(1,695,500)	(1,695,500)
Change in Net Position per Statement of Revenues,			
Expenses and Changes in Net Position	<u>\$ (855,978)</u>	<u>\$ 12,301,356</u>	<u>\$ 11,445,378</u>

The accompanying notes to the supplementary information are an integral part of this schedule.



WATER IMPROVEMENT AND EXTENSION FUND - BUDGET TO ACTUAL For the Year Ended June 30, 2021

The Great Lakes Water Authority Board adopts a budget for the uses of the Improvement & Extension Funds. The schedule below presents the Board adopted budget, adjusted for amendments, for comparison with actual activity in the Water I&E Fund. The Water System I&E Fund experienced a decrease of \$81.3 million in net position which represents use of I&E funds reserved from prior years. This was expected as it aligns with the capital funding strategy. The system experienced a positive budget variance of approximately \$12.5 million.

	Ad	Adopted Budget		Amended Budget		Actual [2]		Variance Over (Under) Amended Budget	
Inflows Revenue transfers Operating transfer Investment earnings [1]	\$	23,962,500 - -	\$	35,094,800 - 3,048,400	\$	35,094,800 1,000 3,539,066	\$	- 1,000 490,666	
Total Inflows		23,962,500		38,143,200		38,634,866		491,666	
Outflows Capital spending other (net operating expenses) Capital outlay Water system revenue transfer out [1] Revenue financed capital - transfer to Water Construction Fund		- 17,892,000 - 75,000,000		4,922,800 10,559,100 3,048,400 110,077,200		4,797,237 11,893,172 3,898,841 95,963,693		(125,563) 1,334,072 850,441 (14,113,507)	
Total Outflows		92,892,000		128,607,500		116,552,943		(12,054,557)	
Net Increase (Decrease) - Budget Basis	\$	(68,929,500)	\$	(90,464,300)		(77,918,077)	\$	12,546,223	
Non-budgeted inflows (outflows) Net decrease in fair value of investments Asset transfers between systems (net) Other						(2,931,504) (436,524) 8,950			
Combining Schedule Water I&E Fund Change in Net Position [2]				\$	(81,277,155)			

[1] As required by the Master Bond Ordinance investment earnings on I&E funds are transferred to the receiving fund on a monthly basis and are reported in the Operations Fund Budget to Actual investment earnings line item. See Schedule of Revenue Requirement Budget to Actual - Water Operations. This amount does not include the net change in the fair value of investments as the cash is not available until the investments mature or are sold and gains and losses are realized.

[2] See the Combining Schedule of Revenues, Expenses and Changes in Net Position - Water Fund. Information in this schedule is based on activity in the Water Improvement and Extension Fund.



SEWER IMPROVEMENT AND EXTENSION FUND - BUDGET TO ACTUAL For the Year Ended June 30, 2021

The Great Lakes Water Authority Board adopts a budget for the uses of the Improvement & Extension Funds. The schedule below presents the Board adopted budget, adjusted for amendments, for comparison with actual activity in the Sewer I&E Fund. Overall, the Sewer System I&E Fund experienced a decrease of \$4.8 million in net position which represents use of I&E funds reserved from prior years. This was expected as it aligns with the capital funding strategy. The system experienced a negative budget variance of approximately \$5.4 million.

	Ad	opted Budget	Am	ended Budget		Actual [2]		Variance ver (Under) Amended Budget
Inflows								
Revenue transfers	\$	39,705,500	\$	42,742,700	\$	42,742,700	\$	-
Receipt of DWSD shortfall loan	÷	19,288,300	Ŧ	19,288,300	Ŷ	18,841,715	Ŧ	(446,585)
Investment earnings [1]				1,401,300		1,510,308		109,008
				.,		.,010,000		
Total Inflows		58,993,800		63,432,300		63,094,723		(337,577)
Outflows								
Capital spending other (net operating expenses)		-		2,460,700		5,907,368		3,446,668
Capital outlay		20,481,100		14,270,300		9,120,833		(5,149,467)
Sewer system revenue transfer out [1]		-		1,401,300		1,532,672		131,372
Revenue financed capital - transfer to Sewer Construction Fund		42,500,000		43,971,200		50,579,091		6,607,891
Total Outflows		62,981,100		62,103,500		67,139,964		5,036,464
Net Increase (Decrease) - Budget Basis	\$	(3,987,300)	\$	1,328,800		(4,045,241)	\$	(5,374,041)
Non-budgeted inflows (outflows)								
Net decrease in fair value of investments						(1,239,466)		
Asset transfers between systems (net)						436,524		
Other						8,950		
Combining Schedule Sewer I&E Fund Change in Net Position [[2]				\$	(4,839,233)		

[1] As required by the Master Bond Ordinance investment earnings on I&E funds are transferred to the receiving fund on a monthly basis and are reported in the Operations Fund Budget to Actual investment earnings line item. See Schedule of Revenue Requirement Budget to Actual - Sewage Disposal Operations. This amount does not include the net change in the fair value of investments as the cash is not available until the investments mature or are sold and gains and losses are realized.

[2] See the Combining Schedule of Revenues, Expenses and Changes in Net Position - Sewage Disposal Fund. Information in this schedule is based on activity in the Sewer Improvement and Extension Fund.



WATER CONSTRUCTION FUND - BUDGET TO ACTUAL For the Year Ended June 30, 2021

The Great Lakes Water Authority Board adopts a budget for the use of the Construction Funds. The schedule below presents the Board adopted budget, adjusted for amendments, for comparison with actual activity in the Water Construction Fund. The Water System Construction Fund had a decrease of \$8.4 million in net position which represents use of construction funds from prior periods. This was expected as it aligns with the capital funding strategy. They system experienced a negative budget variance of approximately \$0.8 million.

	Adopted Budget	Amended Budget	Actual [2]	Variance Over (Under) Amended Budget		
Inflows						
Transfers from Water Improvement & Extension Fund	\$ 75,000,000	\$ 110,077,200	\$ 95,963,693	\$ (14,113,507)		
State revolving loans Investment earnings [1]	12,365,800 820,400	12,365,800 26,800	20,186,528 19,800	7,820,728		
investment earnings [1]	620,400	20,000	19,000	(7,000)		
Total Inflows	88,186,200	122,469,800	116,170,021	(6,299,779)		
Outflows						
Water system revenue transfer out [1]	-	-	370	370		
Capital projects	110,673,000	129,984,400	124,533,977	(5,450,423)		
Total Outflows	110,673,000	129,984,400	124,534,347	(5,450,053)		
Net Increase (Decrease) - Budget Basis	\$ (22,486,800)	\$ (7,514,600)	(8,364,326)	\$ (849,726)		
Non-budgeted inflows (outflows)						
Net decrease in fair value of investments			(4,145)			
Combining Schedule Water Construction Fund Chan	ge in Net Position [2]		\$ (8,368,471)			

[1] As required by the Master Bond Ordinance investment earnings on I&E funds are transferred to the receiving fund on a monthly basis and are reported in the Operations Fund Budget to Actual investment earnings line item. The Construction funds contains a combination of revenue bonds (interest earnings stay in the fund) and I&E funds (interest earnings are transferred to the receiving fund). There were no revenue bonds proceeds remaining in the Construction funds at June 30, 2021. See Schedule of Revenue Requirement Budget to Actual - Water Operations. This amount does not include the net change in the fair value of investments as the cash is not available until the investments mature or are sold and gains and losses are realized.

[2] See the Combining Schedule of Revenues, Expenses and Changes in Net Position - Water Fund. Information in this schedule is based on activity in the Water Construction Fund.



SEWER CONSTRUCTION FUND - BUDGET TO ACTUAL

For the Year Ended June 30, 2021

The Great Lakes Water Authority Board adopts a budget for the use of the Construction Funds. The schedule below presents the Board adopted budget, adjusted for amendments, for comparison with actual activity in the Sewer Construction Fund. The Sewer System Construction Fund had a decrease of \$11.8 million in net position which represents use of construction funds from prior periods. This was expected as it aligns with the capital funding strategy. They system experienced a negative budget variance of approximately \$4.6 million.

	Adapted Dudget	A	and a Dudwat		Actual [2]	С	Variance over (Under) Amended
-	Adopted Budget	Amended Budget		Actual [2]		Budget	
Inflows							
Transfers from Sewer Improvement & Extension Fund	\$ 42,500,000	\$	43,971,200	\$	50,579,091	\$	6,607,891
State revolving loans	33,200,000		33,200,000		17,261,319		(15,938,681)
Investment earnings [1]	497,700		27,600		23,103		(4,497)
Total Inflows	76,197,700		77,198,800		67,863,513		(9,335,287)
Outflows							
Sewer system revenue transfer out [1]	-		-		167		167
Capital projects	82,979,000		84,459,700		79,698,178	. <u> </u>	(4,761,522)
Total Outflows	82,979,000		84,459,700		79,698,345		(4,761,355)
Net Increase (Decrease) - Budget Basis	\$ (6,781,300)	\$	(7,260,900)		(11,834,832)	\$	(4,573,932)
Non-budgeted inflows (outflows) Net decrease in fair value of investments					(3,621)		
Combining Schedule Sewage Disposal Construction	Fund Change in Ne	et Posi	ition [2]	\$	(11,838,453)		

[1] As required by the Master Bond Ordinance investment earnings on I&E funds are transferred to the receiving fund on a monthly basis and are reported in the Operations Fund Budget to Actual investment earnings line item. The Construction funds contains a combination of revenue bonds (interest earnings stay in the fund) and I&E funds (interest earnings are transferred to the receiving fund). There were no revenue bonds proceeds remaining in the Construction funds at June 30, 2021. See Schedule of Revenue Requirement Budget to Actual - Sewage Disposal Operations. This amount does not include the net change in the fair value of investments as the cash is not available until the investments mature or are sold and gains and losses are realized.

[2] See the Combining Schedule of Revenues, Expenses and Changes in Net Position - Sewage Disposal Fund. Information in this schedule is based on activity in the Sewer Construction Fund.



SCHEDULE OF DAYS CASH - LIQUIDITY June 30, 2021

	2021	2020	2019	2018	2017	2016*
Water Fund						
Cash and investments -						
Unrestricted	<u>\$ 353,308,385</u>	<u>\$ 394,440,814</u>	\$ 347,204,928	<u>\$ 317,089,746</u>	<u>\$ 267,335,558</u>	\$ 167,292,572
Operating Expense						
Operating expense	\$ 250,476,297	\$ 263,282,730	\$ 263,959,730	\$ 254,602,752	\$ 245,868,861	\$ 120,841,204
Less: depreciation	(123,271,541)	(127,183,228)	(140,571,120)	(143,991,815)	(144,137,912)	(71,295,545)
Less: amortization of intangible asset	(3,566,664)	(3,566,664)	(3,566,664)	(2,080,554)	-	-
C C		,				
Net Operating Expense	<u>\$ 123,638,092</u>	<u>\$ 132,532,838</u>	<u>\$ 119,821,946</u>	\$ 108,530,383	\$ 101,730,949	\$ 49,545,659
Operating Expense per Day (365 days)	\$ 338,734	\$ 363,104	\$ 328,279	\$ 297,344	<u>\$ 278,715</u>	<u>\$ 273,733</u>
Days Cash						
Number of days cash	1,043	1,086	1,058	1,066	959	611
Sewage Disposal Fund						
Cash and investments -						
Unrestricted	\$ 323,972,718	\$ 287,464,920	\$ 236,057,128	\$ 208,563,268	<u>\$ 205,179,312</u>	<u>\$ 188,063,375</u>
Operating Expense						
Operating expense	\$ 328,983,415	\$ 329,870,427	\$ 342,585,175	\$ 363,629,987	\$ 336,946,731	\$ 170,401,050
Less: depreciation	(150,772,065)	(152,920,967)	(168,544,370)	(187,250,583)	(185,628,465)	(86,021,029)
Less: amortization of intangible asset	(109,926)					
Net Operating Expense	<u> </u>	<u>\$ 176,949,460</u>	<u>\$ 174,040,805</u>	<u>\$ 176,379,404</u>	<u>\$ 151,318,266</u>	\$ 84,380,021
Operating Expense per Day (365 days)	\$ 487,949	\$ 484,793	\$ 476,824	\$ 483,231	<u>\$ 414,571</u>	<u>\$ 466,188</u>
Days Cash						
Number of days cash	664	593	495	432	495	403
Combined						
Cash and investments -						
Unrestricted	<u>\$ 677,281,103</u>	<u>\$ 681,905,734</u>	<u>\$ 583,262,056</u>	<u>\$ 525,653,014</u>	<u>\$ 472,514,870</u>	<u>\$ 355,355,947</u>
Operating Expense						
Operating expense	\$ 579,459,712	\$ 593,153,157	\$ 606,544,905	\$ 618,232,739	\$ 582,815,592	\$ 291,242,254
Less: depreciation	(274,043,606)	(280,104,195)	(309,115,490)	(331,242,398)	(329,766,377)	(157,316,574)
Less: amortization of intangible asset	(3,676,590)	(3,566,664)	(3,566,664)	(2,080,554)		
Net Operating Expense	<u>\$ 301,739,516</u>	\$ 309,482,298	\$ 293,862,751	<u>\$ 284,909,787</u>	\$ 253,049,215	<u>\$ 133,925,680</u>
Operating Expense per Day (365 days)	<u>\$ 826,684</u>	<u>\$ 847,897</u>	<u>\$ 805,103</u>	\$ 780,575	\$ 693,286	\$ 739,921
Days Cash						
Number of days cash	819	804	724	673	682	480

* GLWA assumed operations on January 1, 2016. Data for 2016 includes six months of operation under GLWA. Operating expense per day for 2016 is computed using 181 days (six months of operations).



NOTES TO SUPPLEMENTARY INFORMATION For the Year Ended June 30, 2021

Note 1 – Combining and Individual Fund Schedules

The Combining and Individual Fund Schedules presented combined the six funds the Authority maintains into the two major funds reported in the Basic Financial Statements, the Water Fund and Sewage Disposal Fund. The following describes the six funds and the purpose of each fund.

Water Operations Fund – All water revenues are credited to this fund. All expenses for the operations and maintenance of the water system are paid from this fund. This fund aligns with the operations and maintenance (O&M) expense revenue requirement for establishing service charges.

Sewer Operations Fund – All sewer revenues are credited to this fund. All expenses for the operations and maintenance of the wastewater system are paid from this fund. This fund aligns with the operations and maintenance (O&M) expense revenue requirement for establishing service charges.

Water Improvement & Extension Fund (I&E) – Amounts that are budgeted in the water revenue requirement to reduce debt financing are transferred to this fund as well as any other water funds that management has determined are available for this use. This fund is used for water system capital outlays and capital improvements. Expenditures under the operating expenses category are expenditures incurred for the betterment of the system, which may lead to capital expenditures but are not necessarily applicable to any current capital improvement.

Sewer Improvement & Extension Fund (I&E) - Amounts that are budgeted in the wastewater revenue requirement to reduce debt financing are transferred to this fund as well as any other wastewater funds that management has determined are available for this use. This fund is used for wastewater system capital outlays and capital improvements. Expenditures under the operating expenses category are expenditures incurred for the betterment of the system, which may lead to capital expenditures but are not necessarily applicable to any current capital improvement.

Water Construction Fund – This fund is used to pay for water system capital improvements from Water Improvement & Extension Fund transfers and the proceeds of water debt obligations and investment earnings thereon.

Sewer Construction Fund – This fund is used to pay for the wastewater system capital improvements from Sewer Improvement & Extension Fund transfers and the proceeds of sewer debt obligations and investment earnings thereon.

NOTES TO SUPPLEMENTARY INFORMATION For the Year Ended June 30, 2021

Note 2 – Budget to Actual Schedules

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Schedule of Operating Expenses – Budget to Actual

The schedule of operating expenses for the water system operations and the sewage disposal system operations provides the detail of the major expense categories of the operations budget compared to the actual results. With the implementation of GASB 87 by the Authority this fiscal year, there has been a change in the presentation of this schedule as the total payments made for the new warehouse lease are included in the operations budget as an expense. For financial reporting purposes the warehouse payments are treated as a reduction in the lease liability and interest expense (which is a nonoperating expense).

The schedule includes the actual operating expenses before depreciation and amortization for the Water Operations and the Sewer Operations reported in the Combining Schedule of Revenues, Expenses and Changes in Net position for the Water Fund and the Sewage Disposal Fund. The GASB 87 line represents the total lease payments made for the warehouse lease which is included in the budget as an operating lease.

Schedule of Revenue Requirement – Budget to Actual

The revenue requirement is the basis for GLWA's budget and calculating Member Partner service charges. The revenue requirement is presented to align with the Master Bond Ordinance flow of funds categories. The budget basis reflects revenues and operations and maintenance expenses on an accrual basis adjusted for GASB 87 as described in the note above, in addition to cash payments for debt service, legacy pension obligations, and regional system lease related activities.

The revenue requirement basis is foundational to GLWA's daily operations and long-term financial planning. The budget is adopted by the GLWA Board of Directors by resolution. The Board's action establishes the total operations and maintenance budget, total debt service requirements and total capital expenditures for the I&E Fund and Construction Fund for both the Regional Water System and the Regional Sewer System. The legal level of budgetary control is at this level. Administratively, the budget may be modified within these categories. Modifications to the budget beyond those established levels would be presented to the Audit Committee, and subsequently to the Board.

Note 3 – Schedule of Revenue Requirement to Statement of Revenues, Expenses and Changes in Net Position Crosswalk

The Great Lakes Water Authority establishes a revenue requirements budget for the purposes of establishing charges, which follows a modified cash basis of accounting. The financial report is prepared in accordance with Generally Accepted Accounting Principles for enterprise funds of a local government. The crosswalk provides a reconcilement between the different basis of accounting used for the budget and the financial report.

STATISTICAL SECTION



STATISTICAL SECTION TABLE OF CONTENTS

The objective of the statistical section is to provide financial statement users with additional historical perspective, context and detail to assist in using the information in the financial statements, notes to financial statements and required supplementary information to understand and assess the Authority's economic condition.

The statistical section information is presented in the following categories:

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Financial Trends Schedules 1 through 2	Financial trends information is intended to show how the Authority's financial position has changed over time.	112
Revenue Capacity Schedules 3 through 7	Revenue capacity information is intended to show the factors affecting the Authority's ability to generate its own-source revenue.	121
Debt Capacity Information Schedules 8 through 12	Debt capacity information is intended to show the Authority's debt burden and its ability to issue additional debt.	127
Demographic and Economic Schedules 13 through 14	Demographic and economic information is intended to show the socioeconomic environment within which the Authority operates.	141
Operating Information Schedules 15 through 17	Operating information is intended to show contextual information about operations and resources to provide understanding and assessing the Authority's economic	
	condition.	143

Sources: Unless otherwise noted, information presented in these schedules was obtained from GLWA's comprehensive annual financial reports, the prior financial reports of DWSD or other internal information systems.

GREAT LAKES WATER AUTHORITY

SCHEDULE OF NET POSITION - BUSINESS-TYPE ACTIVITIES As of June 30, 2021

	2021	2020	2019	2018	2017	2016
Assets						
Current Assets						
Cash and cash equivalents	\$ 354,351,132	\$ 208,356,720	\$ 309,015,559	\$ 509,141,777	\$ 470,231,842	\$ 311,735,186
Restricted cash and cash equivalents	151,186,044	65,364,730	164,495,839	105,929,392	132,967,081	134,210,268
Restricted cash for the benefit of DWSD	6,064,197	1,544,529	3,318,316	8,418,827	288,378	62,078
Investments	322,929,971	473,549,014	274,246,497	16,511,237	2,283,028	43,620,761
Restricted investments	31,690,982	117,966,914	34,852,593	33,025,340	32,541,021	56,661,000
Receivables						
Billed	108,247,576	95,159,661	98,886,172	88,712,190	88,694,341	85,676,104
Unbilled	54,387,680	54,893,266	50,441,488	54,429,817	53,818,603	55,345,336
Other	574,906	310,373	1,137,526	3,728,886	3,158,350	114,648,035
Allowance for doubtful accounts	(50,884,273)	(44,991,966)	(42,257,915)	(39,084,816)	(35,352,009)	(124,009,242
Due from other governments	13,240,859	31,802,636	30,243,156	47,927,860	50,789,041	107,688,300
Due from other funds	2,948,712	2,134,191	2,889,522	3,778,220	-	65,971
Contractual obligation receivable	31,195,900	29,661,490	26,418,147	24,813,886	23,339,242	11,929,259
Loan receivable - DWSD	8,296,578	18,206,431	17,542,669	9,367,355	-	-
Prepaid items and other assets	11,744,542	10,150,336	8,448,932	4,949,631	3,526,568	2,591,049
Inventories	7,795,152	7,007,208	5,832,593	8,471,626	8,509,454	9,984,063
Total Current Assets	1,053,769,958	1,071,115,533	985,511,094	880,121,228	834,794,940	810,208,168
Noncurrent Assets						
Restricted cash and cash equivalents	5,395,501	47,505,584	94,185,040	48,263,059	306,318,331	160,949,722
Restricted investments	38,533,910	39,819,506	150,978,512	293,697,988	101,708,122	105,028,079
Contractual obligation receivable	936,811,819	954,297,909	883,248,672	812,613,943	830,432,680	832,571,741
Loan receivable - DWSD	-	8,296,578	26,503,010	19,932,645	-	-
Prepaid lease	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	-
Assets not subject to depreciation	813,485,421	719,865,490	786,405,120	706,046,995	730,471,792	711,434,348
Capital assets being depreciated, net	3,546,026,747	3,689,047,120	3,747,783,788	3,984,216,865	4,178,315,045	4,427,945,555
Intangible assets, net	98,653,054	97,786,037	101,352,701	104,919,365	-	-
Prepaid insurance on debt	18,357,442	19,988,764	22,635,151	29,933,631	32,694,221	48,653,581
Total Noncurrent Assets	5,482,263,894	5,601,606,988	5,838,091,994	6,024,624,491	6,204,940,191	6,286,583,026
otal Assets	6,536,033,852	6,672,722,521	6,823,603,088	6,904,745,719	7,039,735,131	7,096,791,194
Deferred Outflows of Resources						
Deferred charge on refunding	163,387,050	174,435,795	241,879,138	280,975,963	297,646,441	328,659,457
Deferred pension amounts	61,687,252	42,661,204	31,717,285	52,015,636	59,954,478	37,997,043
otal Deferred Outflows of Resources	225,074,302	217,096,999	273,596,423	332,991,599	357,600,919	366,656,500

	2021	2020	2019	2018	2017	2016
_iabilities						
Current Liabilities						
Accounts and contracts payable	\$ 85.221.415	\$ 74,070,629	\$ 74,662,036	\$ 67,832,136	\$ 64,298,400	\$ 85.626.614
Accrued salaries, wages and benefits	6,028,598	5,321,864	4,284,220	4,734,956	3,190,038	2,887,280
Other accrued liabilities	11.573.811	5,357,056	7,109,589	12,679,692	2,252,616	1.550.254
Due to other governments	19,443,993	20,032,254	15,963,934	11,983,407	61,242,386	37,893,903
Due to other funds	2,948,712	2,134,191	2,889,522	3,778,220	01,212,000	65,971
Interest payable	71,811,380	58,452,960	84,456,284	80,431,318	80,340,520	81,139,013
Current portion of:	71,011,000	00,402,000	04,400,204	00,401,010	00,040,020	01,100,010
Revenue bonds and loans	119,909,733	121,998,075	117,602,109	81,756,050	89,314,212	96,552,356
Raw water rights obligation	2,734,246	2,624,820	2,520,996	2,999,458	03,514,212	30,332,330
Obligation payable	631,153	601,097	572.474	2,999,438 545,213	- 519.251	494.524
Regional system leases	12,121,951	11,627,700	11,153,602	10,698,835	10,262,609	9,844,169
5 ,	, ,	, ,		, ,	, ,	
Accrued compensated absences	3,497,267	3,881,249	3,188,156	2,929,412	2,837,148	2,239,376
Accrued workers' compensation	255,817	176,834	217,480	228,239	25,000	785,953
Lease payable Claims and judgments	189,119 1,925,000	- 2,322,500	- 2,346,111	- 2,529,392	- 3,852,062	4,763,944
Total Current Liabilities	338,292,195	308,601,229	326,966,513	283,126,328	318,134,242	323,843,357
	330,292,193	300,001,229	320,900,313	205,120,520	510,154,242	323,043,33
Noncurrent Liabilities						
Revenue bonds and loans	5,319,896,659	5,474,913,736	5,630,571,800	5,714,095,283	5,842,482,161	5,876,115,82
Raw water rights obligation	95,361,056	98,095,302	100,720,123	103,241,118	-	
Obligation payable	53,751,162	54,382,315	54,983,412	55,555,887	56,101,100	56,620,35
Regional system lease	901,738,681	913,860,632	925,488,338	936,641,935	947,340,770	957,603,37
Lease right to use asset	4,258,178	-	-	-	-	
Accrued compensated absences	2,131,661	1,954,359	2,049,655	2,174,506	2,288,125	3,511,934
Accrued workers' compensation	75,000	75,000	75,000	75,000	225,000	7,953,47
Claims and judgments	7,550,000	7,550,000	7,550,000	7,550,000	262,500	25,914,35
Other liabilities	7,500,000	9,178,547	9,096,630	8,638,011	8,565,277	8,622,78
Net pension liability	144,305,198	132,909,889	131,981,165	178,961,907	194,075,547	170,229,438
Total Noncurrent Liabilities	6,536,567,595	6,692,919,780	6,862,516,123	7,006,933,647	7,051,340,480	7,106,571,53
Fotal Liabilities	6,874,859,790	7,001,521,009	7,189,482,636	7,290,059,975	7,369,474,722	7,430,414,890
Deferred Inflows of Resources						
Deferred gain on refunding	96,296,284	103,809,499	108,300,657	105,907,267	112,080,430	
Deferred amounts for swap terminations	84,205	106,515	240,839	270,150	299,461	4,373,880
Deferred capital contribution	-	5,960,000	-	-	-	
Deferred pension amounts				20,254,690	18,316,430	43,342,798
Total Deferred Inflows of Resources	96,380,489	109,876,014	108,541,496	126,432,107	130,696,321	47,716,684
Net Position						
Net investment in capital assets	(302,012,473)	(351,218,780)	(228,867,586)	350,745,726	528,875,506	851,734,51
Restricted for debt service	(302,012,473) 114,544,694	105,282,969	(228,007,500) 146,977,835	125,235,904	134,125,957	178,540,02
	114,044,094	100,202,909	140,977,035			164,326,61
Restricted for capital acquisition	-	-	-	243,238,577	323,905,502	, ,
Restricted for payment assistance program Unrestricted deficit	11,043,109 (33,707,455)	8,988,078 15,370,230	8,001,369 (126,936,239)	5,771,110 (903,746,081)	5,336,117 (1,095,078,075)	977,27 (1,210,262,32)

GREAT LAKES WATER AUTHORITY

SCHEDULE OF NET POSITION - WATER FUND As of June 30, 2021

	2021	2020	2019	2018	2017	2016
Assets						
Current Assets						
Cash and cash equivalents	\$ 162,766,427	\$ 88,786,996	148,643,793	\$ 310,085,221	\$ 266,483,138	\$ 155,712,891
Restricted cash and cash equivalents	65,677,030	39,304,453	68,564,311	51,097,342	60,753,268	53,028,844
Restricted cash for the benefit of DWSD	3,144,400	1,544,529	2,690,397	8,418,827	288,378	10,430
Investments	190,541,958	305,653,818	198,561,135	7,004,525	852,420	11,579,681
Restricted investments	2,932,400	30,900,352	1,468,148	1,234,954	1,169,187	27,818,000
Receivables						
Billed	48,694,817	38,769,605	38,336,701	38,272,740	36,459,563	37,629,170
Unbilled	30,066,884	31,032,237	26,144,348	29,229,709	29,539,433	32,307,945
Other	85,494	214,997	916,074	5,850	1,300	21,899,046
Allowance for doubtful accounts	(11,562,519)	(8,634,075)	(7,455,747)	(6,221,815)	(4,941,777)	(25,040,612)
Due from other governments	11,889,748	20,343,238	30,063,571	23,588,754	21,327,713	41,486,157
Due from other funds	2,786,344	2,134,191	2,876,954	330,293	-	-
Contractual obligation receivable	16,558,716	15,620,163	14,328,368	13,560,086	12,076,942	6,851,584
Prepaid items and other assets	7,601,239	6,458,613	5,647,661	3,265,972	2,437,047	2,183,690
Inventories	794,521	636,621	386,612			
Total Current Assets	531,977,459	572,765,738	531,172,326	479,872,458	426,446,612	365,466,826
Noncurrent Assets						
Restricted cash and cash equivalents	2,519,127	20,491,397	32,154,262	18,261,706	177,939,494	5,460,942
Restricted investments	8,651,762	10,770,585	77,075,423	150,436,225	20,530,374	42,841,345
Contractual obligation receivable	552,093,376	554,942,283	468,481,719	477,039,443	483,604,380	466,317,666
Prepaid lease	11,250,000	11,250,000	11,250,000	11,250,000	11,250,000	-
Assets not subject to depreciation	498,010,970	418,996,654	467,830,218	434,684,895	452,185,674	415,558,090
Capital assets being depreciated, net	1,324,554,087	1,390,129,473	1,390,765,435	1,499,118,693	1,587,291,603	1,728,054,410
Intangible asset - raw water rights, net	94,219,373	97,786,037	101,352,701	104,919,365	-	-
Prepaid insurance on debt	7,304,243	7,958,703	8,754,897	13,002,376	14,112,324	20,831,496
Total Noncurrent Assets	2,498,602,938	2,512,325,132	2,557,664,655	2,708,712,703	2,746,913,849	2,679,063,949
Total Assets	3,030,580,397	3,085,090,870	3,088,836,981	3,188,585,161	3,173,360,461	3,044,530,775
Deferred Outflows of Resources						
Deferred charge on refunding	44,677,823	47,358,590	82,508,971	94,431,823	99,294,499	116,511,949
Deferred pension amounts	22,112,642	15,292,494	11,369,496	18,645,719	21,491,506	13,620,562
Total Deferred Outflows of Resources	66,790,465	62,651,084	93,878,467	113,077,542	120,786,005	130,132,511

	2021		2020	2019	2018	_	2017		2016
Liabilities									
Current Liabilities									
Accounts and contracts payable	\$ 53,039,330	\$	43,231,679	36,657,714	\$ 33,754,534		\$ 36,751,842	\$	49,474,527
Accrued salaries, wages and benefits	4,892,033		5,321,864	4,284,220	4,734,956	6	3,190,038		2,887,280
Other accrued liabilities	6,958,556		5,357,056	6,481,670	12,679,692	2	1,353,816		875,796
Due to other governments	15,693,993		18,282,254	15,963,934	11,935,868	3	25,393,813		13,668,890
Due to other funds	162,368		-	12,568	3,447,927	7	-		65,971
Interest payable	36,621,768		30,887,915	40,325,682	39,322,324	1	39,329,322		37,226,125
Current portion of:									
Revenue bonds and loans	32,500,450		33,058,615	29,244,447	20,569,843	3	23,393,905		35,650,167
Raw water rights obligation	2,734,246		2,624,820	2,520,996	2,999,458	3	-		-
Obligation payable	194,242		184,992	176,183	167,794	ļ	159,803		152,193
Regtional system lease	5,454,878		5,232,465	5,019,121	4,814,476	3	4,618,174		4,429,876
Accrued compensated absences	2,768,026		2,981,827	2,430,828	2,212,326	6	2,157,888		1,784,746
Accrued workers' compensation	255,817		176,834	217,480	228,239)	25,000		395,788
Claims and judgments	100,000		2,172,500	2,290,000	2,195,000)	-		4,494,694
Total Current Liabilities	161,375,707	_	149,512,821	145,624,843	139,062,437	7	136,373,601	_	151,106,053
Noncurrent Liabilities									
Revenue bonds and loans	2,407,391,624	2	2,459,730,737	2,467,177,447	2,545,529,255	5	2,606,465,431	2	2,488,824,632
Raw water rights obligation	95.361.056		98.095.302	100.720.123	103.241.118	3	-		-
Obligation payable	16.542.293		16.736.534	16.921.526	17.097.709		17.265.503		17.425.306
Regtional system lease	405,782,406		411,237,284	416,469,750	421,488,87		426,303,346		430,921,520
Accrued compensated absences	2,013,780		1,954,359	2,049,655	2,174,506		2,288,125		3,511,934
Accrued workers' compensation	75.000		75.000	75.000	75.000		225.000		3,562,536
Claims and judgments	50.000		50,000	50,000	50,000		75.000		
Other noncurrent liabilities	2,000,000		2,761,256	2,804,949	2,634,47		2,582,076		2,710,092
Net pension liability	51,728,179		47,643,374	47,310,460	64,151,352	2	69,569,044	_	61,021,079
Total Noncurrent Liabilities	2,980,944,338	3	3,038,283,846	3,053,578,910	3,156,442,282	2	3,124,773,525	3	3,007,977,099
Total Liabilities	3,142,320,045	3	3,187,796,667	3,199,203,753	3,295,504,719	9	3,261,147,126	3	3,159,083,152
Deferred Inflows of Resources									
Deferred gain on refunding	52,250,187		56,283,953	60,317,719	59,252,43 ²		62,822,646		-
Deferred amounts for swap terminations	66,164		70,890	75,616	80,342	2	85,068		4,134,908
Deferred pension amounts			<u> </u>		7,260,572	2	6,565,776		15,536,821
Total Deferred Inflows of Resources	52,316,351		56,354,843	60,393,335	66,593,345	5	69,473,490		19,671,729
Net Position									
Net investment in capital assets	(191,352,010)		(237,858,820)	(166,485,092)	60,799,635	5	134,919,107		400,187,482
Restricted for debt service	23,688,943		19,479,656	29,731,576	23,239,368	3	26,194,280		69,797,836
Restricted for capital acquisition	-		-	-	140,732,216	6	172,974,994		-
Restricted for payment assistance program	4,614,294		3,754,368	3,369,875	2,462,214	1	2,218,373		977,278
Unrestricted (deficit)	65,783,239		118,215,240	56,502,001	(287,668,794		(372,780,904)		(475,054,191)
TOTAL NET POSITION	<u>\$ (97,265,534)</u>	\$	(96,409,556)	<u>\$ (76,881,640</u>)	<u>\$ (60,435,36</u> 2	L)	\$ (36,474,150)	\$	(4,091,595)

GREAT LAKES WATER AUTHORITY

SCHEDULE OF NET POSITION - SEWAGE DISPOSAL FUND As of June 30, 2021

	2021	2020	2019	2018	2017	2016
Assets						
Current Assets						
Cash and cash equivalents	\$ 191,584,705	\$ 119,569,724	\$ 160,371,766	\$ 199,056,556	\$ 203,748,704	\$ 156,022,295
Restricted cash and cash equivalents	85,509,014	26,060,277	95,931,528	54,832,050	72,213,813	81,181,424
Restricted cash for the benefit of DWSD	2,919,797	-	627,919	-	-	51,648
Investments	132,388,013	167,895,196	75,685,362	9,506,712	1,430,608	32,041,080
Restricted investments	28,758,582	87,066,562	33,384,445	31,790,386	31,371,834	28,843,000
Receivables						
Billed	59,552,759	56,390,056	60,549,471	50,439,450	52,234,778	48,046,934
Unbilled	24,320,796	23,861,029	24,297,140	25,200,108	24,279,170	23,037,391
Other	489,412	95,376	221,452	3,723,036	3,157,050	92,748,989
Allowance for doubtful accounts	(39,321,754)	(36,357,891)	(34,802,168)	(32,863,001)	(30,410,232)	(98,968,630
Due from other governments	1,351,111	11,459,398	179,585	24,339,106	29,461,328	66,202,143
Due from other funds	162,368	-	12,568	3,447,927	-	65,97 ⁻
Contractual obligation receivable	14,637,184	14,041,327	12,089,779	11,253,800	11,262,300	5,077,675
Loan receivable - DWSD	8,296,578	18,206,431	17,542,669	9,367,355	-	
Prepaid items and other assets	4,143,303	3,691,723	2,801,271	1,683,659	1,089,521	407,359
Inventories	7,000,631	6,370,587	5,445,981	8,471,626	8,509,454	9,984,063
Total Current Assets	521,792,499	498,349,795	454,338,768	400,248,770	408,348,328	444,741,342
Noncurrent Assets						
Restricted cash and cash equivalents	2,876,374	27,014,187	62,030,778	30,001,353	128,378,837	155,488,780
Restricted investments	29,882,148	29,048,921	73,903,089	143,261,763	81,177,748	62,186,734
Contractual obligation receivable	384,718,443	399,355,626	414,766,953	335,574,500	346,828,300	366,254,075
Loan receivable - DWSD	-	8,296,578	26,503,010	19,932,645	-	
Prepaid lease	13,750,000	13,750,000	13,750,000	13,750,000	13,750,000	
Assets not subject to depreciation	315,474,451	300,868,836	318,574,902	271,362,100	278,286,118	295,876,258
Capital assets being depreciated, net	2,221,472,660	2,298,917,647	2,357,018,353	2,485,098,172	2,591,023,442	2,699,891,145
Intangible assets, net	4,433,681	-	-	-	-	
Prepaid insurance on debt	11,053,199	12,030,061	13,880,254	16,931,255	18,581,897	27,822,08
Total Noncurrent Assets	2,983,660,956	3,089,281,856	3,280,427,339	3,315,911,788	3,458,026,342	3,607,519,07
otal Assets	3,505,453,455	3,587,631,651	3,734,766,107	3,716,160,558	3,866,374,670	4,052,260,419
Deferred Outflows of Resources						
Deferred charge on refunding	118,709,227	127,077,205	159,370,167	186,544,140	198,351,942	212,147,50
Deferred pension amounts	39,574,610	27,368,710	20,347,789	33,369,917	38,462,972	24,376,48

	2021	2020	2019	2018	2017	2016
Liabilities						
Current Liabilities						
Accounts and contracts payable	\$ 32,182,085	\$ 30,838,950	\$ 38,004,322	\$ 34,077,602	\$ 27,546,558	\$ 36,152,087
Accrued salaries, wages and benefits	1,136,565	-	-	-	-	-
Other accrued liabilities	4,615,255	-	627,919	-	898,800	674,458
Due to other governments	3,750,000	1,750,000	-	47,539	35,848,573	24,225,013
Due to other funds	2,786,344	2,134,191	2,876,954	330,293	-	-
Interest payable	35,189,612	27,565,045	44,130,602	41,108,994	41,011,198	43,912,888
Current portion of:						
Revenue bonds and loans	87,409,283	88,939,460	88,357,662	61,186,207	65,920,307	60,902,189
Obligation payable	436,911	416,105	396,291	377,419	359,448	342,331
Regional system lease	6,667,073	6,395,235	6,134,481	5,884,359	5,644,435	5,414,293
Accrued compensated absences	729,241	899,422	757,328	717,086	679.260	454,630
Lease payable	189,119	-	-		-	390,165
Claims and judgments	1,825,000	150,000	56,111	334,392	3,852,062	269,250
Total Current Liabilities	176,916,488	159,088,408	181,341,670	144,063,891	181,760,641	172,737,304
						,,
Noncurrent Liabilities						
Revenue bonds and loans	2,912,505,035	3,015,182,999	3,163,394,353	3,168,566,028	3,236,016,730	3,387,291,190
Obligation payable	37,208,869	37,645,781	38,061,886	38,458,178	38,835,597	39,195,045
Regional system lease	495,956,275	502,623,348	509,018,588	515,153,064	521,037,424	526,681,859
Lease right to use asset	4,258,178					
Accrued compensated absences	117,881	-		-	-	-
Accrued workers' compensation	-	-	-	-	-	4,390,938
Claims and judgments	7,500,000	7,500,000	7,500,000	7,500,000	187,500	25,914,350
Other noncurrent liabilities	5,500,000	6,417,291	6,291,681	6,003,540	5,983,201	5,912,693
Net pension liability	92,577,019	85,266,515	84,670,705	114,810,555	124,506,503	109,208,359
Total Noncurrent Liabilities	3,555,623,257	3,654,635,934	3,808,937,213	3,850,491,365	3,926,566,955	4,098,594,434
Total Liabilities	3,732,539,745	3,813,724,342	3,990,278,883	3,994,555,256	4,108,327,596	4,271,331,738
Deferred Inflows of Resources						
Deferred gain on refunding	44,046,097	47,525,546	47,982,938	46,654,836	49,257,784	-
Deferred amounts for swap terminations	18,041	35,625	165,223	189,808	214,393	238,978
Deferred capital contribution	-	5,960,000			211,000	200,010
Deferred pension amounts	-	- 0,000,000	-	12,994,118	11,750,654	27,805,977
Total Deferred Inflows of Resources	44,064,138	53,521,171	48,148,161	59,838,762	61,222,831	28,044,955
Net Position						
Net investment in capital assets	(110,660,463)	(113,359,960)	(62,382,494)	289,946,091	393,956,399	451,547,037
Restricted for debt service	90,855,751	85,803,313	117,246,259	101,996,536	107,931,677	108,742,193
Restricted for capital acquisition	55,055,751	00,000,010	117,240,208	102,506,361	150,930,508	164,326,618
	- 6,428,815	- 5,233,710	- 4,631,494	3,308,896	3,117,744	104,320,010
Restricted for payment assistance program Unrestricted (deficit)	(99,490,694)	(102,845,010)	4,631,494 (183,438,240)	(616,077,287)	(722,297,171)	- (735,208,133)
	(55,490,094)	(102,040,010)	(103,430,240)	(010,077,207)	(122,291,171)	(133,200,133)
TOTAL NET POSITION	<u>\$ (112,866,591)</u>	<u>\$ (125,167,947)</u>	<u>\$ (123,942,981)</u>	<u>\$ (118,319,403</u>)	<u>\$ (66,360,843)</u>	<u>\$ (10,592,285)</u>

GREAT LAKES WATER AUTHORITY

CHANGES IN NET POSITION - BUSINESS-TYPE ACTIVITIES

	2021	2020	2019)	2018	2017	2016*
Operating Revenues	\$ 589.991.584	\$ 578.705.063	¢ 504.47	1.596 \$	592.096.175	\$ 594,426,876	\$ 281.883.522
Wholesale customer charges	+,	,,	\$ 584,17	,	,,		
Local system charges	209,885,200	207,102,800	201,34	,	194,099,800	202,794,400	102,660,400
Industrial waste charges	8,004,939	7,854,593		6,274	14,334,979	14,381,106	6,910,192
Pollutant surcharges	6,719,964	6,448,508	5,93	32,550	6,908,404	5,206,294	2,423,910
Bad debt recovery	-	-		-	-	40,172,155	-
Other revenues	766,943	778,257	52	27,663	4,455,345	576,195	4,252,477
otal Operating Revenues	815,368,630	800,889,221	801,07	8,783	811,894,703	857,557,026	398,130,501
perating Expenses							
Personnel	106,945,131	104,266,420	98,58	8,599	95,525,457	86,156,304	21,590,763
Contractual services	103,324,025	109,448,358	101,74	3,758	99,877,310	90,135,859	17,179,869
Utilities	52,749,654	51,152,735	51.39	5,385	53,694,380	55,661,469	25,037,499
Chemicals	13,982,136	14,241,843		5,860	12,877,813	14,765,181	6,451,484
Supplies and other expenses	31,097,071	35,427,273		20,915	34,526,388	20,162,690	17,903,355
Capital adjustment	51,057,071	26,780		58,351	34,320,300	20,102,030	17,300,000
	(2 404 000)		,	,	(4 000 450)	-	-
Capital program allocation	(3,191,809)	(3,347,401	· · · · · · · · · · · · · · · · · · ·	80,755)	(1,683,450)	(2,128,078)	-
Intergovernmental reimbursements	(3,166,692)	(1,733,710) (7,13	39,362)	(9,908,111)	(11,704,210)	-
Centralized services	-	-		-	-	-	35,228,282
Administrative services	-	-		-	-	-	10,534,428
Depreciation	274,043,606	280,104,195	309,11	5,490	331,242,398	329,766,377	157,316,574
Amortization of intangible assets	3,676,590	3,566,664	3,56	6,664	2,080,554		
otal Operating Expenses	579,459,712	593,153,157	606,54	4,905	618,232,739	582,815,592	291,242,254
operating Income	235,908,918	207,736,064	194,53	3,878	193,661,964	274,741,434	106,888,247
lonoperating Revenues (Expenses)							
Earnings on investments	7,040,249	19,445,105	22,36	8,312	11,395,785	4,042,790	1,481,398
Net increase (decrease) in fair value of investments	(5,780,625)	5,971,601	4,14	9,490	-	-	-
Interest on loan and obligations receivable	43,722,511	42,434,884	41.77	7,702	38,856,520	42,332,428	21.062.500
Interest expense	(263,485,014)	(288,947,856	,	,	(300,395,306)	(291,592,097)	(148,447,442
Amortization of debt related items and cost of issuance	12.965.639	10.302.560		5.230	8.684.285	(14,937,182)	2,055,724
Legacy pension expense	(22,527,961)	(20,143,505	-,	78,381	(24,922,162)	(7,021,006)	2,000,121
WRAP (Water Residential Assistance Program)	(1,517,453)	(3,315,117		24,119)	(3,755,534)	(2,127,333)	
Other		2,552,295				661,734	-
	(475,849)	2,552,295		9,859	(1,254,350)	001,734	-
Sewer lookback - MOU adjustment	-	-		27,200)	-	-	
Gain (loss) on disposal of capital assets Loss on impairment of capital assets	(365,037)	(1,316,886		31,284	2,463,478	(250,826)	275,693
Loss on impairment of capital assets		(1,432,027) (1,02	25,341)	(654,451)	(31,499)	
otal Nonoperating Expenses	(230,423,540)	(234,448,946	(216,60)3,735)	(269,581,735)	(268,922,991)	(123,572,127
come (loss) before contributions and special item	5,485,378	(26,712,882	(22,06	69,857)	(75,919,771)	5,818,443	(16,683,880)
apital Contributions	5,960,000	5,960,000		-	-	320,707	2,000,000
pecial Item - MOU with DWSD	<u> </u>					(94,290,263)	
hange in net position	11,445,378	(20,752,882) (22,06	69,857)	(75,919,771)	(88,151,113)	(14,683,880)
ET POSITION (DEFICIT), Beginning of Year	(221,577,503)	(200,824,621) (178,75	64,764)	(102,834,993)	(14,683,880)	

GREAT LAKES WATER AUTHORITY

CHANGES IN NET POSITION - WATER FUND

	2021	2020	2019	2018	2017	2016*
Operating Revenues	2021	2020	2019	2018	2017	2016
Wholesale customer charges	\$ 322,423,768	\$ 312,701,777	\$ 311,399,136	\$ 323,117,344	\$ 331,115,131	\$ 160,777,169
Local system charges	21,925,500	21,295,500	20,181,400	15,130,600	15,490,300	6,833,500
Bad debt recovery	,,	,,		-	5,107,125	-,,
Other revenues	265,822	256,300	21,340	64,200	37,388	54,863
Total Operating Revenues	344,615,090	334,253,577	331,601,876	338,312,144	351,749,944	167,665,532
Operating Expenses						
Personnel	43,889,495	43,946,225	42,085,546	41,845,295	38,261,393	8,301,022
Contractual services	40,410,811	46,097,405	43,083,078	35,794,549	34,257,419	3,304,113
Utilities	28,828,226	27,719,754	26,247,858	26,871,081	28,469,603	12,368,557
Chemicals	6,028,141	5,569,437	5,088,827	4,804,768	5,340,753	2,444,543
Supplies and other expenses	9,158,990	12,034,192	11,797,279	9,543,615	7,982,562	1,440,644
Capital adjustment	-	26.780	-	-	-	-
Capital program allocation	(2,123,060)	(2,164,003)	(2,054,913)	(713,779)	(977,762)	-
Intergovernmental reimbursements	(2,554,511)	(696,952)	(6,425,729)		(11,603,019)	-
Centralized services	(2,001,011)	(000,002)	(0, 120, 120)	(0,010,110)	(11,000,010)	18,494,851
Administrative services			-	_	_	3,191,929
Depreciation	123,271,541	127,183,228	140,571,120	143,991,815	144,137,912	71,295,545
Amortization of intangible asset	3,566,664	3,566,664	3,566,664	2,080,554		
Total Operating Expenses	250,476,297	263,282,730	263,959,730	254,602,752	245,868,861	120,841,204
Operating Income	94,138,793	70,970,847	67,642,146	83,709,392	105,881,083	46,824,328
Nonoperating Revenues (Expenses)						
Earnings on investments	4,215,105	10,485,467	12,348,295	6,129,530	1,832,918	392,031
Net increase (decrease) in fair value of investments	(3,446,187)	3,259,307	2,406,106	-	-	-
Interest on loan and obligations receivable	25,474,904	22,945,866	22,921,380	23.351.220	25,269,750	12.231.250
Interest expense	(128,257,367)	(133,537,621)	(136,704,033)	(139,343,204)	(132,434,945)	(65,958,095
Amortization of debt related items and cost of issuance	15,988,278	14,258,569	10,771,937	13,837,585	2,403,018	2,418,891
Legacy pension expense	(8,075,457)	(7,220,716)	6,014,441	(8,933,691)	(2,516,776)	_,,
WRAP (Water Residential Assistance Program)	(593,206)	(1,393,179)	(855,455)	(1,506,554)	(884,327)	-
Other	(176,909)	2,186,331	114,136	(544,813)	1,117,704	_
Gain (loss) on disposal of capital assets	(123,932)	(50,760)	(435,095)	(6,225)	(207,900)	_
Loss on impairment of capital assets		(1,432,027)	(670,137)	(654,451)	(31,499)	
Total Nonoperating Expenses	(94,994,771)	(90,498,763)	(84,088,425)	(107,670,603)	(105,452,057)	(50,915,923)
Income (loss) before special item	(855,978)	(19,527,916)	(16,446,279)	(23,961,211)	429,026	(4,091,595)
Special Item - MOU with DWSD	-	-	-	-	(32,811,581)	-
Change in net position	(855,978)	(19,527,916)	(16,446,279)	(23,961,211)	(32,382,555)	(4,091,595)
NET POSITION (DEFICIT), Beginning of Year	(96,409,556)	(76,881,640)	(60,435,361)	(36,474,150)	(4,091,595)	-
NET POSITION (DEFICIT), END OF YEAR	\$ (97,265,534)	\$ (96,409,556)	\$ (76,881,640)		\$ (36,474,150)	\$ (4,091,595)
ALT CONTON (DENOT), END OF TEAK	$\frac{\varphi}{\varphi}$ (31,200,034)	ψ (30,403,000)	ψ (10,001,040)	ψ (00,430,301)	ψ (30,474,130)	<u>ψ (+,091,395</u>

GREAT LAKES WATER AUTHORITY

CHANGES IN NET POSITION - SEWAGE DISPOSAL FUND

	2021	2020	2019	2018	2017	2016*
Operating Revenues	• • • • • • • • • • • • • • • • • • •	* 000 000 000	¢ 070 770 400		• • • • • • • • • • • • • • • • • • •	A 404 400 050
······································	\$ 267,567,816	\$ 266,003,286	\$ 272,772,460	\$ 268,978,831	\$ 263,311,745	\$ 121,106,353
Local system charges	187,959,700	185,807,300	181,159,300	178,969,200	187,304,100	95,826,900
Industrial waste charges	8,004,939	7,854,593	9,106,274	14,334,979	14,381,106	6,910,192
Pollutant surcharges	6,719,964	6,448,508	5,932,550	6,908,404	5,206,294	2,423,910
Bad debt recovery		-	-	-	35,065,030	-
Other revenues	501,121	521,957	506,323	4,391,145	538,807	4,197,614
Fotal Operating Revenues	470,753,540	466,635,644	469,476,907	473,582,559	505,807,082	230,464,969
Operating Expenses						
Personnel	63,055,636	60,320,195	56,503,053	53,680,162	47,894,911	13,289,741
Contractual services	62,913,214	63,350,953	58,660,680	64,082,761	55,878,440	13,875,756
Utilities	23,921,428	23,432,981	25,147,527	26,823,299	27,191,866	12,668,942
Chemicals	7,953,995	8,672,406	8,187,033	8,073,045	9,424,428	4,006,941
Supplies and other expenses	21,938,081	23,393,081	25,323,636	24,982,773	12,180,128	16,462,711
Capital adjustment	-	-	2,258,351	-	-	-
Capital program allocation	(1,068,749)	(1,183,398)	(1,325,842)	(969,671)	(1,150,316)	-
Intergovernmental reimbursements	(612,181)	(1,036,758)	(713,633)	(292,965)	(101,191)	
Centralized services	(012,101)	(1,000,100)	(110,000)	(202,000)	(101,101)	16,733,431
Administrative services	_	_	_	_	_	7,342,499
Depreciation	150,772,065	152,920,967	168,544,370	187,250,583	185,628,465	86,021,029
•	109,926	152,920,907	100,044,070	107,250,565	105,020,405	00,021,029
Amortization of intangible assets	109,920					
otal Operating Expenses	328,983,415	329,870,427	342,585,175	363,629,987	336,946,731	170,401,050
Operating Income	141,770,125	136,765,217	126,891,732	109,952,572	168,860,351	60,063,919
Ionoperating Revenues (Expenses)						
Earnings on investments	2,825,144	8,959,638	10,020,017	5,266,255	2,209,872	1,089,367
Net increase (decrease) in fair value of investments	(2,334,438)	2,712,294	1,743,384	-	-	-
Interest on loan and obligations receivable	18,247,607	19,489,018	18,856,322	15,505,300	17,062,678	8,831,250
Interest expense	(135,227,647)	(155,410,235)	(159,893,300)	(161,052,102)	(159,157,152)	(82,489,347
Amortization of debt related items and cost of issuance	(3,022,639)	(3,956,009)	(6,776,707)	(5,153,300)	(17,340,200)	(363,167
Legacy pension expense	(14,452,504)	(12,922,789)	10,763,940	(15,988,471)	(4,504,230)	
WRAP (Water Residential Assistance Program)	(924,247)	(1,921,938)	(1,168,664)	(2,248,980)	(1,243,006)	-
Other	(298,940)	365,964	305,723	(709,537)	(455,970)	-
Sewer lookback - MOU adjustment	(200,010)	-	(6,527,200)	(100,001)	(100,010)	_
Gain (loss) on disposal of capital assets	(241,105)	(1,266,126)	516,379	2,469,703	(42,926)	275,693
Loss on impairment of capital assets		- (1,200,120)	(355,204)	2,409,703		
otal Nonoperating Expenses	(135,428,769)	(143,950,183)	(132,515,310)	(161,911,132)	(163,470,934)	(72,656,204)
ncome (loss) before contributions and special item	6,341,356	(7,184,966)	(5,623,578)	(51,958,560)	5,389,417	(12,592,285
capital Contributions	5,960,000	5,960,000	-	-	320,707	2,000,000
pecial Item - MOU with DWSD	<u> </u>	<u> </u>			(61,478,682)	-
hange in net position	12,301,356	(1,224,966)	(5,623,578)	(51,958,560)	(55,768,558)	(10,592,285)
Julige in net peetien		. ,	. ,	. ,	. ,	
IET POSITION (DEFICIT), Beginning of Year	(125,167,947)	(123,943,981)	(118,319,403)	(66,360,843)	(10,592,285)	

GREAT LAKES WATER AUTHORITY

CHARGE ADJUSTMENTS

	2022	2021	2020	2019	2018	2017	2016 [5]
Vater Fund Sudgeted revenue requirement [1]	\$344,030,500	\$341,642,000	\$339,664,200	\$331,400,500	\$328,119,300	\$331,213,200	\$318,474,200
	ψ 044,000,000	ψ0+1,0+2,000	φ000,004,200	φ 001,400,000	φ020,110,000	ψ001,210,200	ψ010,474,200
ercent change in budgeted							
evenue requirement	0.7%	0.6%	2.5%	1.0%	-0.9%	4.0%	4.0%
verage annual charge adjustment [2]							
Total regional system	1.5%	3.2%	0.6%	1.8%	1.8%	4.5%	n/a [6
Suburban wholesale	1.9%	3.1%	0.3%	0.2%	2.0%	3.4%	11.3%
Local system charge [3]	-2.0%	3.0%	2.7%	14.1%	-1.0%	11.6%	n/a [6
Number of wholesale							
water customers [4]	87	87	87	87	87	88	85
ewage Disposal Fund							
udgeted revenue requirement [1]	\$475,429,200	\$486,751,300	\$480,605,300	\$470,156,000	\$465,500,100	\$464,078,500	\$446,229,300
ercent change in budgeted							
evenue requirement	-2.3%	1.3%	2.2%	1.0%	0.3%	4.0%	4.0%
verage annual charge adjustment [2]							
Total regional system	-0.6%	2.0%	0.8%	0.1%	-0.7%	8.3%	n/a [6
Suburban wholesale	-0.1%	1.7%	-0.1%	1.3%	1.8%	4.9%	-1.1
Local system charge [3]	-0.7%	2.3%	2.5%	1.2%	-4.2%	13.9%	n/a [(
Number of wholesale							
sewer customers [4]	18	18	18	18	18	18	2

[1] This is the revenue requirements in the original adopted budget for the fiscal year which is used in the calculation of charges. The revenue requirement represents the funding requirements which are defined in the Master Bond Ordinance.

[2] Average annual charge adjustment percentages is the required charge adjustment required when calculating revenue with the prior year existing charges, usage projections and any other specific individual contract requirements. For the sewage disposal system, this also includes the bad debt adjustment.

[3] Represents the annual change in the local system charges to the Detroit customer class before the annual credit of \$20.7 million for water and \$5.5 million for sewer. Does not include any lookback charges in the percentage increase/decrease calculation. Does not include any Detroit local system operating costs or charges included in the Detroit retail rate. Also does not include any impact of Detroit's use of the regional system lease payment to finance allocated debt service obligations.

[4] Does not include the City of Detroit. The water system includes one emergency basis contract.

[5] GLWA began operations on January 1, 2016. Amounts in this column are based on annual budget of Detroit Water and Sewage Department for FY 2016 which was the basis for the revenue requirement for the six months of operations of GLWA.

[6] Due to the establishment of the Authority and DWSD as separate entities during FY 2016, this information is not applicable.

GREAT LAKES WATER AUTHORITY

Schedule 4a

WATER FUND OPERATING REVENUES/ LARGEST WATER CUSTOMERS

		2021		2020		2019		2018		2017		2016*
Operating Revenues Suburban wholesale charges [1]	¢	200 400 760	\$	312,701,777	¢	311,399,136	¢	202 447 244	۴	224 445 424	¢	460 777 460
Local system charges	\$	322,423,768 21,925,500	φ	21,295,500	\$	20,181,400	\$	323,117,344 15,130,600	\$	331,115,131 15,490,300	\$	160,777,169 6,833,500
, ,		21,925,500		21,295,500		20, 101,400		15,150,000				0,033,500
Bad debt recovery		-		-		-		-		5,107,125		-
Other revenue		265,822		256,300		21,340		64,200		37,388		54,863
Total Operating Revenues	\$	344,615,090	\$	334,253,577	\$	331,601,876	\$	338,312,144	\$	351,749,944	\$	167,665,532
Suburban wholesale charges % of total												
operating revenue		93.56%		93.55%		93.91%		95.51%		94.13%		95.89%
Local system charges % of total												
operating revenue		6.36%		6.37%		6.09%		4.47%		4.40%		4.08%
Ten Largest Wholesale Customers												
Southeast Oakland County Water Authority	\$	23,722,602	\$	23,089,967	\$	23,311,743	\$	23,118,160	\$	22,434,129	\$	11,160,701
North Oakland County Water Authority		22,667,931		22,293,795		23,464,096		23,365,866		22,913,261		11,105,152
Sterling Heights		16,375,729 15,690,553		15,242,912 14,482,451		14,644,368 13,719,053		15,571,146 13,554,398		15,480,008 13,462,808		7,155,303 6,114,243
Shelby Township Troy		14,324,990		13,607,770		13,700,093		13,842,135		13,939,815		6,058,667
Macomb Township		13,388,385		12,870,377		11,063,225		11.167.739		10,945,117		0,050,007
Livonia		11,806,151		11,553,730		14,001,058		13,669,376		13,483,657		6,223,290
Flint [2]		10,980,526		10,325,345		11,604,504		12,235,483		13,256,330		6,738,009
West Bloomfield Township		11,010,166		-		10,733,617		-		-		-
Canton Township		10,919,607		10,491,407		-		13,334,615		13,872,584		6,032,404
Ypsilanti Community Utilities Authority		-		10,450,861		-		11,038,134		-		-
Genesee County Drain Commission [3]		-		-		-		-		18,493,530		8,593,304
Warren		-		-		10,648,162		-		-		
Novi		-		-		-		-		-		5,595,031
Total Revenue Ten Largest Suburban Wholesale												
Member Partners	\$	150,886,640	\$	144,408,615	\$	146,889,919	\$	150,897,052	\$	158,281,239	\$	74,776,104
Ten largest suburban wholesale member partners												
% of total operating revenues		43.78%		43.20%		44.30%		44.60%		45.00%		44.60%

[1] Net of bad debt expense.

[2] Represents billed revenues prior to the credit to Flint for its proportional share of KWA debt service.

[3] Genesee County Drain Commission changed service providers in December 2017 and has contracted GLWA for as needed emergency water service.

GREAT LAKES WATER AUTHORITY

SEWAGE DISPOSAL FUND OPERATING REVENUES/ LARGEST SEWER CUSTOMERS

0		2021		2020		2019		2018	 2017	 2016*
Operating Revenues Suburban wholesale charges [1]	\$	267,567,816	\$	266,003,286	\$	272,772,460	\$	268,978,831	\$ 263,311,745	\$ 121,106,353
Local system charges	·	187,959,700	·	185,807,300	·	181,159,300	•	178,969,200	187,304,100	95,826,900
Industrial waste and surcharges		14,724,903		14,303,101		15,038,824		21,243,383	19,587,400	9,334,102
Bad debt recovery									35,065,030	-
Other revenue		501,121		521,957		506,323		4,391,145	 538,807	 4,197,614
Total Operating Revenues	\$	470,753,540	\$	466,635,644	\$	469,476,907	\$	473,582,559	\$ 505,807,082	\$ 230,464,969
Suburban wholesale charges % of total										
operating revenue		56.84%		57.00%		58.10%		56.80%	52.06%	52.55%
Local system charges % of total										
operating revenue		39.93%		39.82%		38.59%		37.79%	37.03%	41.58%
Ten Largest Wholesale Customers										
Oakland Macomb Interceptor Drainage District	\$	70,355,029	\$	69,870,786	\$	77,533,200	\$	72,816,000	\$ 69,627,600	\$ 34,541,400
Wayne County - Rouge Valley Oakland County-George W Kuhn		54,536,400		54,162,000		53,761,200		55,022,400	55,486,800	25,901,400
Drainage District		45,558,000		45,264,000		44,972,400		45,751,200	45,682,800	21,410,400
Evergreen Farmington		35,084,400		34,839,600		34,578,000		33,733,200	32,179,200	15,094,200
South Macomb Sanitation District		25,000,800		24,837,600		24,672,000		24,637,200	24,120,000	11,501,400
Dearborn		19,628,400		19,502,400		19,372,800		19,628,400	19,603,200	8,049,000
Highland Park		5,708,400		5,670,000		5,614,800		5,642,400	5,818,800	2,808,600
Hamtramck		4,019,400		3,994,800		3,962,400		3,958,800	4,086,000	1,966,800
Grosse Pointe Farms		2,769,000		2,750,400		2,727,600		2,696,400	2,667,600	1,243,800
Grosse Pointe Park		1,824,000		1,812,000		1,801,200		1,740,000	 1,626,000	 746,400
Total Revenue Ten Largest										
Suburban Wholesale Member Partners	\$	264,483,829	\$	262,703,586	\$	268,995,600	\$	265,626,000	\$ 260,898,000	\$ 123,263,400
Ten largest suburban wholesale member										
partners % of total operating revenues		56.18%		56.30%		57.30%		56.09%	51.58%	53.48%

[1] Net of bad debt expense.

Schedule 5

GREAT LAKES WATER AUTHORITY

DRAFT

SCHEDULE OF WHOLESALE WATER CHARGES* AND TOTAL REVENUE REQUIREMENT FOR THE DETROIT RETAIL CLASS

Community Name	Fixed Monthly \$/mo	Commodity \$/Mcf	Community Name	Fixed Monthly \$/mo	Commodity \$/Mcf
Allen Park	\$ 122.400	\$ 7.80	Mayfield Township	\$ 2.500	\$ 23.10
Almont, Village of	12.200	10.52	Melvindale	33,600	6.23
Ash Township	42,400	8.28	New Haven, Village of	20,500	6.74
Belleville	16.000	9.77	North Oakland County Water Authority	1,143,600	10.22
Berlin Township	37,400	11.41	Northville, City	46,100	11.72
Brownstown Township	187,400	10.82	Northville Township	290,100	16.95
Bruce Township	15,900	68.40	Novi	468,800	12.69
Canton Township	527,600	12.17	Oak Park	71,700	6.03
Center Line	23,900	6.23	Oakland County Drain Commission	4,300	3.29
Chesterfield Township	217,600	10.33	,	55,500	10.24
Clinton Township	390,100	7.79	Plymouth Township	229,900	11.31
Commerce Township	183,400	14.50	Redford Township	165,300	8.04
Dearborn	539,900	7.24	River Rouge	34,800	7.54
Dearborn Heights	189,200	7.70	Riverview	45,000	7.82
Eastpointe	80,600	6.15	Rockwood	14,400	11.56
Ecorse	78,800	4.31	Romeo	13,000	18.18
Farmington	52,300	9.24	Romulus	216,400	8.23
Farmington Hills	460,900	10.20	Roseville	138,700	5.91
Ferndale	52,300	6.19	Royal Oak Township	10,500	7.15
Flat Rock	70,500	9.18		724,600	15.15
Flint (1)	572,300	8.76	Southeastern Oakland County Water Authority	1,192,900	7.58
Fraser	63,200	8.51	South Rockwood	6,000	9.92
Garden City	87,900	8.30	Southgate	114,600	7.90
Gibraltar	17,300	8.33		16,800	18.67
Grosse lle Township	57,300	11.65	St. Clair County-Greenwood Energy Center	24,000	12.83
Grosse Pointe Park	76,700	11.04	St. Clair Shores	158,300	6.68
Grosse Pointe Shores	33,900	13.60	Sterling Heights	785,000	10.99
Grosse Pointe Woods	73,700	9.13	Sumpter Township	34,500	9.64
Hamtramck	40,900	5.39	Sylvan Lake	12,100	15.11
Harper Woods	42,500	6.76	Taylor	241,400	7.24
Harrison Township	79,100	6.82	Trenton	86,700	8.10
Hazel Park	38,200	5.98	Troy	700,800	12.14
Highland Park	60,300	4.61	Utica	29,800	9.34
Huron Township	76,000	10.09	Van Buren Township	177,200	11.14
Imlay City	74,600	13.52	Walled Lake	41,700	10.64
Imlay Township	800	39.44	Warren	530,000	6.89
Inkster	63,800	5.45	Washington Township	116,900	12.49
Keego Harbor	15,500	12.35	Wayne	159,500	13.38
Lapeer	80,300	11.84	West Bloomfield Township	538,000	16.29
Lenox Township	15,300	8.21	Westland	321,700	7.80
Lincoln Park	115,900	6.12	Wixom	127,600	13.73
Livonia	594,800	9.92	Woodhaven	86,700	11.91
Macomb Township	653,000	16.03	Ypsilanti Community Utilities Authority	540,900	8.76
Madison Heights	99,400	6.82			

Annual Detroit Wholesale Revenue Requirement \$21,925,500 - Effective January 1, 2021

* Wholesale charges went into effect January 1, 2021 per GLWA Board of Director's action taken at their regular meeting held September 23, 2020

(1) Net fixed monthly charge will include \$554,400 monthly credits for KWA debt service

GREAT LAKES WATER AUTHORITY

SCHEDULE OF WHOLESALE SEWER CHARGES* AND TOTAL REVENUE REQUIREMENT FOR THE DETROIT RETAIL CLASS

Wholesale Sewage Charges	Mo	nthly Charge
Oakland Macomb Interceptor District (OMID)	\$	6,400,000
Rouge Valley		4,575,900
Oakland County - George W. Kuhn (GWK)		3,821,000
Evergreen Farmington		2,944,100
SE Macomb Sanitary District		2,097,000
Dearborn		1,646,200
Grosse Pointe Farms		232,300
Grosse Pointe Park		153,000
Melvindale		129,600
Farmington		97,200
Center Line		87,300
Allen Park		72,200
Highland Park		478,900
Hamtramck		337,000
Grosse Pointe		75,400
Harper Woods		18,500
Redford Township		22,300
Wayne County #3		4,300

Annual Detroit Wholesale Revenue Requirement \$187,959,700 - Effective January 1, 2021

* Wholesale charges went into effect January 1, 2021

INDUSTRIAL WASTE CONTROL CHARGES AND POLLUTANT SURCHARGES EFFECTIVE JANUARY 1, 2021

Industrial Waste Control Charges				
	Ad	min Only	Mon	thly Charge
Meter size - inches:	Ch	arge (1)		(2)
5/8	\$	0.86	\$	3.45
3/4	\$	1.30	\$	5.18
1	\$ \$	2.16	\$	8.63
1 1/2	\$	4.75	\$	18.98
2	\$ \$	6.90	\$	27.60
3	\$	12.51	\$	50.03
4	\$	17.25	\$	69.00
6	\$	25.88	\$	103.50
8	\$ \$	43.13	\$	172.50
10	\$	60.38	\$	241.50
12	\$	69.00	\$	276.00
14	\$	86.25	\$	345.00
16	\$	103.50	\$	414.00
18	\$ \$ \$	120.75	\$	483.00
20	\$	138.00	\$	552.00
24	\$	155.25	\$	621.00
30		172.50	\$	690.00
36	\$ \$	189.75	\$	759.00
48	\$	207.00	\$	828.00

(1) Administration only charge is applicable to member partners that are within a geographical area defined in a specific agreement.

(2) Includes both administration and field work components charges for all other member partn

Pollutant Surcharges	nrge per ound
Biochemical Oxygen Demand (BOD) for concentrations > 275 mg/l	\$ 0.502
Total Suspended Solids (TSS) for concentrations > 350 mg/l	\$ 0.510
Phosphorus (P) for concentrations > 12 mg/l	\$ 7.519
Fats, Oil and Grease (FOG) for concentrations > 100 mg/l	\$ 0.484
Septage Disposal Fee per 500 gallons of disposal	\$ 48.00

GREAT LAKES WATER AUTHORITY

RATIOS OF OUTSTANDING DEBT BY TYPE

		2021		2020		2019		2018		2017	_	2016
Water Fund												
Revenue bonds [1] State revolving loans	. ,	8,632,473 71,259,601	\$2	,453,471,088 39,318,264	\$2,	466,561,092 29,860,802	\$2,	,540,663,196 25,435,902	\$2,	612,607,101 17,252,235	\$	2,507,091,038 17,383,761
Total Water Fund	<u>\$2,43</u>	39,892,074	<u>\$2</u>	,492,789,352	<u>\$2</u> ,	496,421,894	<u>\$2</u>	,566,099,098	<u>\$2,</u>	629,859,336	\$	2,524,474,799
Sewage Disposal Fund												
Revenue bonds [1]	\$ 2,57	7,642,399	\$2	,643,788,368	\$2,	764,196,915	\$2,	,739,090,653	\$2,	797,168,264	\$	2,922,089,599
Capital appreciation bonds [1]	4	5,504,069		10,667,560		13,377,972		14,984,042		19,501,737		19,668,138
State revolving loans	4	16,767,850		449,666,531		474,177,128		475,677,540		485,267,036	-	506,435,742
Total Sewage Disposal Fund	<u>\$2,9</u>	99,914,318	<u>\$3</u>	,104,122,459	<u>\$3</u> ,	251,752,015	<u>\$3</u> ,	,229,752,235	<u>\$3,</u>	301,937,037	\$	3,448,193,479
Business-type Activities												
Revenue bonds [1]	\$4,94	46,274,872	\$5	,097,259,456	\$5,	230,758,007	\$5,	,279,753,849	\$5,	409,775,365	\$	5,429,180,637
Capital appreciation bonds [1]		5,504,069		10,667,560		13,377,972		14,984,042		19,501,737		19,668,138
State revolving loans	48	38,027,451		488,984,795		504,037,930		501,113,442		502,519,271	-	523,819,503
Total Business-type Activities Debt	<u>\$ 5,43</u>	39,806,392	<u>\$</u> 5	,596,911,811	\$5,	748,173,909	\$5,	,795,851,333	<u>\$5,</u>	931,796,373	\$	5,972,668,278
Total taxable value *		n/a		n/a		n/a		n/a		n/a		n/a
Total population served [2]:												
Water		3,800,000		3,800,000		3,800,000		3,800,000		3,800,000		3,800,000
Sewage disposal		2,800,000		2,800,000		2,800,000		2,800,000		2,800,000		2,800,000
Total debt per capita:												
Water	\$	642	\$	656	\$	657	\$	675	\$	692	\$	664
Sewage disposal	\$	1,071	\$	1,109	\$	1,161	\$	1,153	\$	1,179	\$	1,231
Per capita income [3]	\$	53,316	\$	50,069	\$	54,172	\$	52,572	\$	50,863	\$	48,692
Total debt as a percentage of income: Water		1.20%		1.31%		1.21%		1.28%		1.36%		1.36%
Sewage disposal		2.01%		2.21%		2.14%		2.19%		2.32%		2.53%

[1] Amounts are reported net of premiums and discounts.

[2] Source: Estimated based on data from Southeast Michigan Council of Governments (SEMCOG).

[3] Source: FRED Economic Data, St. Louis Fed and Michigan State University Center for Economic Analysis.

* GLWA is not authorized to levy property taxes; therefore, presentation of taxable values and the ratio of total debt to taxable value is not applicable.

Further details regarding the Authority's debt can be found in the notes to the financial statements.

GLWA began operations on January 1, 2016. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

Schedule 9

GREAT LAKES WATER AUTHORITY

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DEBT BY LIEN As of June 30, 2021

Continued on Next Page

	Original Principal Amount [1]	Outstanding as of June 30, 2021	Total Future Debt [2]
Nater Supply System Revenue Bonds			
Senior Lien Bonds			
Water Supply System Revenue Senior Lien Bonds, Series 2003A	\$ 234,805,000	\$ 100,000	\$ 100,000
Water Supply System Revenue Senior Lien Bonds, Series 2005B	194,900,000	100,000	100,000
Water Supply System Revenue Senior Lien Bonds, Series 2006A	280,000,000	100,000	100,000
Water Supply System Revenue Senior Lien Bonds, Series 2011B	17,195,000	575,000	575,000 1,020,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2011C Water Supply System Revenue Refunding Senior Lien Bonds, Series 2014D-1	103,890,000 206,540,000	1,020,000 112,450,000	112,450,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2014D-1 Water Supply System Revenue Refunding Senior Lien Bonds, Series 2014D-2	188,455,000	188,455,000	188,455,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2014D-2 Water Supply System Revenue Refunding Senior Lien Bonds, Series 2014D-4	307,645,000	209,360,000	209,360,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2014D-4 Water Supply System Revenue Refunding Senior Lien Bonds, Series 2015D-1	89,430,000	75,200,000	75,200,000
Water Supply System Revenue Senior Lien Bonds, Series 2016A	88,000,000	88,000,000	88,000,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2016C	443,930,000	443,930,000	443,930,000
Water Supply System Revenue Senior Lien Bonds, Series 2020A	42,445,000	42,445,000	42,445,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2020C	377,515,000	377,515,000	377,515,000
	2,574,750,000	1,539,250,000	1,539,250,000
Second Lien Bonds			
Water Supply System Revenue Second Lien Bonds, Series 2003B	172,945,000	100,000	100,000
Water Supply System Revenue Second Lien Bonds, Series 2006B	120,000,000	100,000	100,000
Water Supply System Revenue Refunding Second Lien Bonds, Series 2014D-6	65,425,000	51,570,000	51,570,000
Water Supply System Revenue Refunding Second Lien Bonds, Series 2015D-2	37,235,000	37,235,000	37,235,000
Water Supply System Revenue Second Lien Bonds, Series 2016B	163,830,000	163,830,000	163,830,000
Water Supply System Revenue Refunding Second Lien Bonds, Series 2016D	222,045,000	222,045,000	222,045,000
Water Supply System Revenue Refunding Second Lien Bonds, Series 2018A	155,595,000	135,245,000	135,245,000
Water Supply System Revenue Second Lien Bonds, Series 2020B	43,135,000	43,135,000	43,135,000
	980,210,000	653,260,000	653,260,000
SRF Junior Lien Bonds		4 005 404	4 005 40
Water Supply System Revenue Bonds, Series 2005 SRF-1	13,805,164	4,605,164	4,605,164
Water Supply System Revenue Bonds, Series 2005 SRF-2 Water Supply System Revenue Bonds, Series 2006 SRF-1	8,891,730	2,906,730 1,715,926	2,906,730
Water Supply System Revenue Bonds, Series 2008 SRF-1	5,180,926 2,590,941	845,941	1,715,926 845,94
Water Supply System Revenue Bonds, Series 2006 SRF-1	8,273,168	7,663,168	7,663,168
Water Supply System Revenue Bonds, Series 2016 SRF-2	3,393,543	3,138,543	3,138,543
Water Supply System Revenue Bonds, Series 2017 SRF-1	5,807,931	5,502,931	5,502,93
Water Supply System Revenue Bonds, Series 2019 SRF-1	8,330,000	7,764,051	8,330,00
Water Supply System Revenue Bonds, Series 2019 SRF-2	29,950,000	15,778,733	29,950,000
Water Supply System Revenue Bonds, Series 2019 SRF-3	11,788,056	7,683,723	11,788,056
Water Supply System Revenue Bonds, Series 2020 SRF-1	20,538,700	7,718,196	20,538,700
Water Supply System Revenue Bonds, Series 2020 SRF-2	9,000,000	567,665	9,000,000
Water Supply System Revenue Bonds, Series 2020 SRF-3	8,960,000	5,368,830	8,960,000
Water Supply System Revenue Bonds, Series 2020 SRF-4	12,153,050	-	12,153,050
Water Supply System Revenue Bonds, Series 2021 SRF-1	11,940,000		11,940,000
	160,603,209	71,259,601	139,038,209
TOTAL WATER SUPPLY SYSTEM REVENUE BONDS	\$ 3,715,563,209	<u>\$ 2,263,769,601</u>	\$ 2,331,548,209

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DEBT BY LIEN As of June 30, 2021

Continued on Next Page

	Original Principal Amount [1]	Outstanding as of June 30, 2021	Total Future Debt [2]
wage Disposal System Revenue Bonds			
Senior Lien Bonds			
Sewage Disposal System Revenue Bonds (Senior), Series 1999 SRF-2	\$ 46,000,000	\$ 5,700,000	\$ 5,700,00
Sewage Disposal System Revenue Bonds (Senior), Series 1999A	33,510,118	5,675,000	5,675,00
Sewage Disposal System Senior Lien Revenue Bonds, Series 2003B	150,000,000	100,000	100,00
Sewage Disposal System Senior Lien Revenue Refunding Bonds, Series 2004A	101,435,000	14,050,000	14,050,00
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2006D	370,000,000	239,475,000	239,475,00
Sewage Disposal System Revenue & Revenue Refunding Senior Lien Bonds, Series 2012A	, ,	41,525,000	41,525,00
Sewage Disposal System Revenue Senior Lien Bonds, Series 2014C-1	123,220,000	5,000	5,0
Sewage Disposal System Revenue Senior Lien Bonds, Series 2014C-2	27,470,000	5,000	5,0
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2014C-3	446,170,000	420,745,000	420,745,0
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2014C-6	143,880,000	88,900,000	88,900,0
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2016B	126,105,000	126,105,000	126,105,0
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2018A	81,595,000	80,225,000	80,225,0
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2018B	131,690,000	131,690,000	131,690,0
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2018C	44,180,000	41,305,000	41,305,0
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2020A	594,930,000	594,930,000	594,930,0
	3,079,965,118	1,790,435,000	1,790,435,0
econd Lien Bonds Sewage Disposal System Second Lien Revenue Bonds, Series 2001B	110,550,000	78,895,000	78,895,0
Sewage Disposal System Revenue Second Lien Rovende Bonds, Series 2001b	273,355,000	100,000	100,0
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2005B	40,215,000	17,115,000	17,115,0
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2005C	63,160,000	100.000	100.0
Sewage Disposal System Revenue Second Lien Bonds, Series 2006B	250,000,000	100,000	100,0
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2014C-7	76,715,000	55,210,000	55,210,0
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2015C	197,660,000	197,160,000	197,160,0
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2016C	295,190,000	295,190,000	295,190,0
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2020B	92,525,000	92,525,000	92,525,0
	02,020,000	02,020,000	02,020,0

Schedule 9

GREAT LAKES WATER AUTHORITY

DRAFT

DEBT BY LIEN As of June 30, 2021

Continued From Previous Page

	Original Principal Amount [1]	Outstanding as of June 30, 2021	Total Future Debt [2]	
Sewage Disposal System Revenue Bonds (concluded)				
SRF Junior Lien Bonds				
Sewage Disposal System Revenue Bonds, Series 2000 SRF-1	\$ 44,197,995	\$ 5,297,995	\$ 5,297,995	
Sewage Disposal System Revenue Bonds, Series 2000 SRF-2	64,401,066	7,941,066	7,941,066	
Sewage Disposal System Revenue Bonds, Series 2001 SRF-1	82,200,000	19,880,000	19,880,000	
Sewage Disposal System Revenue Bonds, Series 2001 SRF-2	59,850,000	14,475,000	14,475,000	
Sewage Disposal System Revenue Bonds, Series 2002 SRF-1	18,985,000	2,350,000	2,350,000	
Sewage Disposal System Revenue Bonds, Series 2002 SRF-2	1,545,369	190,369	190,369	
Sewage Disposal System Revenue Bonds, Series 2002 SRF-3	31,549,466	7,024,466	7,024,466	
Sewage Disposal System Revenue Bonds, Series 2003 SRF-1	48,520,000	14,490,000	14,490,000	
Sewage Disposal System Revenue Bonds, Series 2003 SRF-2	25,055,370	6,015,370	6,015,370	
Sewage Disposal System Revenue Bonds, Series 2004 SRF-1	2,910,000	685,000	685,000	
Sewage Disposal System Revenue Bonds, Series 2004 SRF-2	18,353,459	4,303,459	4,303,459	
Sewage Disposal System Revenue Bonds, Series 2004 SRF-3	12,722,575	2,972,575	2,972,575	
Sewage Disposal System Revenue Bonds, Series 2007 SRF-1	167,540,598	82,115,598	82,115,598	
Sewage Disposal System Revenue Bonds, Series 2009 SRF-1	13,970,062	6,915,062	6,915,062	
Sewage Disposal System Revenue Bonds, Series 2010 SRF-1	4,214,763	2,325,763	2,325,763	
Sewage Disposal System Revenue Bonds, Series 2012 SRF-1	14,950,000	11,215,000	11,215,000	
Sewage Disposal System Revenue Bonds, Series 2015A SRF	79,500,000	63,145,000	63,145,000	
Sewage Disposal System Revenue Bonds, Series 2015B SRF	27,175,304	21,185,304	21,185,304	
Sewage Disposal System Revenue Bonds, Series 2015D SRF	15,321,478	11,716,478	11,716,478	
Sewage Disposal System Revenue Bonds, Series 2016 SAW-1	10,000,000	9,210,000	9,210,000	
Sewage Disposal System Revenue Bonds, Series 2016 SRF-1	15,463,628	13,333,628	13,333,628	
Sewage Disposal System Revenue Bonds, Series 2016 SRF-2	48,315,683	44,245,683	44,245,683	
Sewage Disposal System Revenue Bonds, Series 2017 SRF-1	33,566,682	31,246,682	31,246,682	
Sewage Disposal System Revenue Bonds, Series 2018 SRF-2	17,510,000	17,510,000	17,510,000	
Sewage Disposal System Revenue Bonds, Series 2020 SRF-1	28,350,000	9,728,280	28,350,000	
Sewage Disposal System Revenue Bonds, Series 2020 SRF-2	3,232,000	-	3,232,000	
Sewage Disposal System Revenue Bonds, Series 2021 SRF-1	12,940,000	1,550,072	12,940,000	
	902,340,498	411,067,850	444,311,498	
TOTAL SEWAGE DISPOSAL SYSTEM REVENUE BONDS	<u>\$ 5,381,675,616</u>	<u>\$ 2,937,897,850</u>	<u>\$ 2,971,141,498</u>	

[1] Reflects original amount issued by predecessor entity, DWSD, for bonds issued prior to January 1, 2016.

[2] Includes the full purchase contract amounts not drawn by June 30, 2021 from State Revolving Funds. Final amounts will be determined after project close-out.

SCHEDULE OF DEBT SERVICE REQUIREMENTS As of June 30, 2021

Continued on Next Page

	Senior L	_ien Bonds (in	\$1,000s)	Second	Lien Bonds (in	\$1,000s)	Junior I	Lien Bonds (in \$	51,000s)		Total (in \$1,000)s)
Fiscal										Total Debt	Additional Future	
Year										Service as of	Junior Lien	
Ending			Total Debt			Total Debt			Total Debt	June 30,	Debt Service	Total Future
[1]	Principal	Interest	Service	Principal	Interest	Service	Principal	Interest	Service	2021	[3]	Debt Service
Water Fund												
2022 [2]	\$ 1,600	\$ 55,823	\$ 57,423	\$ 12,790	\$ 29,435	\$ 42,225	\$ 2,998	\$ 1,485	\$ 4,483	\$ 104,131	\$ 1,316	\$ 105,447
2023	53,890	69,103	122,993	15,505	30,948	46,453	4,794	1,432	6,226	175,672	1,644	177,316
2024	60,290	66,341	126,631	16,640	30,144	46,784	5,260	1,328	6,588	180,003	1,640	181,643
2025	64,210	63,477	127,687	18,380	29,269	47,649	5,193	1,219	6,412	181,748	2,304	184,052
2026	67,040	60,553	127,593	19,300	28,326	47,626	5,100	1,112	6,212	181,431	2,511	183,942
2027	70,060	57,313	127,373	20,265	27,336	47,601	5,203	1,005	6,208	181,182	2,507	183,689
2028	73,525	53,954	127,479	21,280	26,299	47,579	3,660	912	4,572	179,630	2,508	182,138
2029	76,770	50,472	127,242	22,345	25,208	47,553	3,746	836	4,582	179,377	2,513	181,890
2030	80,490	46,668	127,158	23,460	24,063	47,523	3,685	759	4,444	179,125	2,508	181,633
2031	84,380	42,659	127,039	27,440	22,791	50,231	3,770	683	4,453	181,723	2,508	184,231
2032	88,510	38,439	126,949	28,810	21,384	50,194	3,845	604	4,449	181,592	2,511	184,103
2033	92,825	34,004	126,829	30,255	20,051	50,306	3,935	524	4,459	181,594	2,515	184,109
2034	86,695	29,565	116,260	42,150	18,585	60,735	3,208	443	3,651	180,646	3,310	183,956
2035	94,960	25,043	120,003	39,930	16,735	56,665	2,050	376	2,426	179,094	4,539	183,633
2036	107,100	20,010	127,110	2,650	15,671	18,321	1,729	331	2,060	147,491	4,890	152,381
2037	15,790	17,046	32,836	120,120	12,600	132,720	1,460	294	1,754	167,310	5,187	172,497
2038	55,135	15,607	70,742	1,600	9,557	11,157	1,495	261	1,756	83,655	5,197	88,852
2039	61,740	13,368	75,108	1,675	9,475	11,150	1,525	228	1,753	88,011	5,190	93,201
2040	63,910	11,160	75,070	1,760	9,389	11,149	1,494	195	1,689	87,908	5,262	93,170
2041	66,160	8,874	75,034	1,845	9,299	11,144	1,090	166	1,256	87,434	5,695	93,129
2042	67,190	6,530	73,720	1,940	9,205	11,145	1,115	140	1,255	86,120	4,638	90,758
2043	17,905	4,901	22,806	31,660	8,365	40,025	896	117	1,013	63,844	3,042	66,886
2044	18,805	3,984	22,789	33,245	6,742	39,987	720	97	817	63,593	2,703	66,296
2045	19,740	3,020	22,760	34,910	5,038	39,948	730	79	809	63,517	1,987	65,504
2046	20,725	2,008	22,733	36,650	3,249	39,899	755	61	816	63,448	1,988	65,436
2047	21,765	946	22,711	38,485	1,371	39,856	769	42	811	63,378	1,983	65,361
2048	2,550	339	2,889	2,590	344	2,934	787	23	810	6,633	1,978	8,611
2049	2,680	208	2,888	2,725	211	2,936	248	3	251	6,075	1,981	8,056
2050	2,810	71	2,881	2,855	71	2,926	-	-	-	5,807	1,979	7,786
2051	-	-	-	-	-	-	-	-	-	-	1,977	1,977
2052											1,459	1,459
Total	\$1,539,250	\$ 801,486	\$2,340,736	\$ 653,260	\$ 451,161	\$1,104,421	\$ 71,260	\$ 14,755	<u>\$ 86,015</u>	\$3,531,172	<u>\$ 91,970</u>	\$ 3,623,142

SCHEDULE OF DEBT SERVICE REQUIREMENTS As of June 30, 2021

Continued From Previous Page

	Senior I	Lien Bonds (in S	\$1,000s)	Second	Lien Bonds (in	\$1,000s)	Junior L	ien Bonds (in \$	61,000s)		Total (in \$1,00	0s)
Fiscal Year Ending [1]	Principal	Interest	Total Debt Service	Principal	Interest	Total Debt Service	Principal	Interest	Total Debt Service	Total Debt Service as of June 30, 2021	Additional Future Junior Lien Debt Service [3]	Total Future _Debt Service
Sewage Dispos	sal Fund											
2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043	65,060 80,260 82,615 84,900 90,905 95,135 102,270 114,250 108,915 112,765 130,570 132,420 53,595 11,445 11,745 110,565 114,005 117,550 23,745 24,635 25,545	63,431 60,103 56,483 52,725 49,262 46,188 42,719 38,808 35,192 32,021 28,236 22,774 18,318 16,909 16,544 14,637 11,146 7,545 5,275 4,374 3,438	128,491 140,363 139,098 137,625 140,167 141,323 144,989 153,058 144,107 144,786 155,194 71,913 28,354 28,289 125,202 125,151 125,095 29,020 29,009 28,983	$\begin{array}{c} 17,655\\ 3,215\\ 16,035\\ 16,995\\ 21,040\\ 25,795\\ 26,640\\ 19,860\\ 32,550\\ 34,175\\ 21,910\\ 25,915\\ 112,440\\ 162,055\\ 169,445\\ 1,690\\ 1,745\\ 1,810\\ 1,875\\ 1,945\\ 2,015\\ \end{array}$	33,881 33,438 32,923 32,040 31,028 29,793 28,415 27,183 25,836 24,168 22,766 21,594 18,464 12,296 4,593 522 461 396 330 261 189	51,536 36,653 48,958 49,035 52,068 55,588 55,055 47,043 58,386 58,343 44,676 47,509 130,904 174,351 174,038 2,212 2,206 2,206 2,206 2,206 2,206	44,919 40,225 41,126 27,200 24,235 24,670 25,175 25,641 15,204 14,100 14,470 14,855 15,290 14,662 7,280 7,394 6,542 990 1,010 1,030 1,050	7,989 7,002 6,087 5,291 4,743 4,225 3,698 3,160 2,694 2,333 1,983 1,624 1,256 887 557 379 198 72 52 31	52,908 47,227 47,213 32,491 28,978 28,895 28,873 28,801 17,898 16,433 16,453 16,453 16,479 16,546 15,549 7,837 7,773 6,740 1,062 1,061	232,935 224,243 235,269 219,151 221,213 225,806 228,917 228,902 220,391 219,562 219,935 219,182 219,363 218,254 210,164 135,187 134,097 128,363 32,287 32,276 32,248	781 782 784 880 1,341 1,343 1,344 1,339 1,619 2,691 2,695 2,691 2,695 2,691 2,695 2,691 2,695 2,691 2,695 2,690 2,694 2,690 2,694 2,499	233,716 225,025 236,053 220,031 222,554 227,149 230,241 222,010 222,253 222,623 221,877 222,054 220,949 212,853 137,879 136,791 131,053 34,977 34,977 34,970
2044	26,500	2,468	28,968	2,085	116	2,201	-	-	-	31,169	-	31,169
2045 2046 2047	27,275 4,425 4,645	1,463 843 617	28,738 5,268 5,262	2,160 - -	39 - -	2,199 - -	- - -	- - -		30,937 5,268 5,262		30,937 5,268 5,262
2048 2049 2050	4,880 5,125 -	378 128 -	5,258 5,253 -	- -	- -	- -	- -	- -		5,258 5,253 -	-	5,255 5,255
2051 2052	-	-	-	-	-	-	-	-	-	-	-	

[1] Reflects fiscal period in which actual payments are due.

[2] For bonds issued through the Michigan Finance Authority (MFA) in 2014 and 2015, the Authority is required to make payment on these obligations to the MFA depository account five business days prior to the actual due date of the bond principal and interest payments. Therefore, the payments for the principal and interest due on July 1, 2021 are not included in the debt service requirement amounts above as they were paid on June 24, 2021.

[3] Includes principal and interest payments on undrawn SRF loans that have been authorized and unissued.



DEBT CREDIT RATING HISTORY As of June 30, 2021

Debt Type	2021	2020	2019	2018	2017	2016
Water Supply System I	Revenue					
Standards & Poor's						
Senior Lien	AA-	AA-	AA-	A-	A-	A-
Second Lien	A+	A+	A+	BBB+	BBB+	BBB+
Junior Lien	A+	A+	A+	N/A	N/A	N/A
Moody's						
Senior Lien	A1	A1	A2	A3	A3	Baa1
Second Lien	A2	A2	A3	Baa1	Baa1	Baa2
Fitch						
Senior Lien	A+	A+	А	А	А	BBB
Second Lien	A	A	A-	A-	A-	BBB-
Sewage Disposal Syste	em Revenue					
Standard's & Poor's						
Senior Lien	AA-	AA-	A+	A-	A-	A-
Second Lien	A+	A+	А	BBB+	BBB+	BBB+
Junior Lien	A+	A+	А	N/A	N/A	N/A
Moody's						
Senior Lien	A1	A1	A2	A3	A3	Baa1
Second Lien	A2	A2	A3	Baa1	Baa1	Baa2
Fitch						
Senior Lien	A+	A+	А	А	А	BBB
Second Lien	А	А	A-	A-	A-	BBB-

GLWA began operations on January 1, 2016. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

GREAT LAKES WATER AUTHORITY

CALCULATION OF DEBT SERVICE COVERAGE - OVERVIEW

As of June 30, 2021

The Authority has pledged Net Revenues of the water and sewage disposal systems to secure the repayment of the principal and interest of the revenue bonds and State of Michigan revolving fund loans. Revenues are defined in the Master Bond Ordinance (MBO) and are in accordance with State of Michigan Public Act 94, the Revenue Bond Act of 1933, as all monies collected, directly or indirectly, by GLWA, or by the DWSD as agent for GLWA for the local system under the water and sewer services agreement.

Net Revenues are defined in the MBO as all Revenues except for those transferred to the Operations and Maintenance Fund. The operating expenses in the Operations Fund are paid for with the revenues that are transferred to the Operations and Maintenance Fund (bank account). See the Schedule of Operating Expenses for Water Operations – Budget to Actual and Schedule of Operating Expenses for Sewage Disposal Operations – Budget to Actual for the detail of the operating expense line item Operations and Maintenance Regional System in the GAAP basis calculation of debt service coverage. Operating expenses in the Improvement and Extension Fund (I&E) are not included in the calculation due to the nature of those expenditures, which are paid from previous years revenue set aside to reduce debt financing.

The MBO establishes that rates and charges be set such that they are expected to produce debt service coverage that is not less than the Required Coverage. Required Coverage is defined as debt service coverage levels of 1.20 for senior lien bonds, 1.10 for second lien bonds and 1.00 for any junior lien bonds, other than second lien bonds. Debt service coverage ratios are inclusive of all revenue bonds, capital appreciation bonds and state revolving loans held on behalf of both GLWA and DWSD.





CALCULATION OF DEBT SERVICE COVERAGE - GAAP BASIS - WATER SYSTEM

As of June 30, 2021

Operating Revenue	Ф 045 774 545
Suburban Wholesale Customers [1]	<u>\$ 315,771,515</u>
Detroit Customers Wholesale Service Charge Revenue [1]	21,925,500
Local Service Revenues [2]	70,314,520
Subtotal - Detroit Customers	92,240,020
Other Operating Revenue-GLWA Other Operating and Nonoperating Revenue-DWSD	265,822 303,992
Other Nonoperating Revenue-GLWA	1,740
Earnings on investments less construction fund	1,1 10
investment earnings	4,195,305
Total Revenue	412,778,394
	412,110,004
Operating Expenses	
Operations and Maintenance Regional System	118,840,855
Operations and Maintenance transfer to Local System	35,833,900
Legacy Pension Obligations Regional System [3]	6,048,000
Legacy Pension Obligations Local System [3]	4,272,000
Total Operating Expenses	164,994,755
Pledged revenues for the year ending June 30, 2021	<u>\$ 247,783,639</u>
Principal and interest funding requirement for the	
year ending June 30, 2021 [4]: Senior Lien Bonds	\$ 123,798,304
Second Lien Bonds	51,731,158
Total Senior and Second Lien Bonds Junior Lien Bonds	175,529,462
	3,684,917
Total All Bonds	<u>\$ 179,214,379</u>
GAAP Basis Debt Service Coverage	
Senior Lien Bonds	2.00
Senior and Second Lien Bonds	1.41
All Bonds, Including SRF Junior Lien	1.38
 Total GLWA Regional System Wholesale Revenue reported net of bad debt allows \$6,652,253 for the KWA debt service credits. 	ance and

- [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] Calculated on a debt set aside basis consistent with rate covenant basis for rate determination

Based on preliminary DWSD financial statements presented to the Board of Water Commissioners on September 27, 2021.

GREAT LAKES WATER AUTHORITY

CALCULATION OF DEBT SERVICE COVERAGE - GAAP BASIS - SEWAGE DISPOSAL SYSTEM As of June 30, 2021

Or proting Devenue	
Operating Revenue Suburban Wholesale Customers [1]	\$ 267,567,816
Industrial waste charges	8,004,939
Pollutant surcharges	6,719,964
Subtotal - Regional System Suburban Wholesale Customers Detroit Customers	282,292,719
Wholesale Service Charge Revenue [1]	187,959,700
Local Service Revenues [2]	87,867,350
Subtotal - Detroit Customers	275,827,050
Other Operating Revenue-GLWA	501,121
Other Operating and Nonoperating Revenue-DWSD Other Nonoperating Revenue-GLWA	<mark>891,195 891,1</mark>
Earnings on investments less construction fund	3,300,704
investment earnings	2,802,041
Total Revenue	568,294,910
Operating Expenses	
Operations and Maintenance Regional System	172,312,815
Operations and Maintenance transfer to Local System	69,915,700
Legacy Pension Obligations Regional System [3]	10,824,000
Legacy Pension Obligations Local System [3]	2,856,000
Total Operating Expenses	255,908,515
Pledged revenues for the year ending June 30, 2021	\$ 312,386,395
Principal and interest funding requirement for the	
year ending June 30, 2021 [4]: Senior Lien Bonds	\$ 119,217,128
Second Lien Bonds	57,778,951
Total Senior and Second Lien Bonds	
Junior Lien Bonds	176,996,079 53,166,797
Total All Bonds	\$ 230,162,876
	φ 230,102,070
GAAP Basis Debt Service Coverage	
Senior Lien Bonds Senior and Second Lien Bonds	2.62 1.76
All Bonds, Including SRF Junior Lien	1.76

[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] Calculated on a debt set aside basis consistent with rate covenant basis for rate determination purposes.

Based on preliminary DWSD financial statements presented to the Board of Water Commissioners on on September 27, 2021.

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CALCULATION OF DEBT SERVICE COVERAGE -RATE COVENANT BASIS - WATER SYSTEM As of June 30, 2021

Receipts Suburban Wholesale Customers	<u>\$ 310,032,178</u>
Detroit Customers Wholesale Service Charge Revenue Local Service Revenues	21,925,500 80,141,924
Subtotal - Detroit Customers Earnings on investments less construction fund	102,067,424
investment earnings Total Revenue	<u>4,684,353</u> 416,783,955
Disbursements Operations and Maintenance Regional System Operations and Maintenance transfer to Local System Legacy Pension Obligations Regional System Legacy Pension Obligations Local System Total Operating Expenses	124,167,627 35,833,900 6,048,000 4,272,000 170,321,527
Pledged revenues for the year ending June 30, 2021	<u>\$ 246,462,428</u>
Principal and interest funding requirement for the year ending June 30, 2021 [1]: Senior Lien Bonds Second Lien Bonds	\$ 123,798,304 51,731,158
Total Senior and Second Lien Bonds Junior Lien Bonds	175,529,462 <u>3,684,917</u>
Total All Bonds	<u>\$ 179,214,379</u>
Rate Covenant Debt Service Coverage Senior Lien Bonds Senior and Second Lien Bonds All Bonds, Including SRF Junior Lien	1.99 1.40 1.38

[1] Calculated on a debt set aside basis consistent with rate covenant basis for rate determination purposes.

DRAFT

CALCULATION OF DEBT SERVICE COVERAGE -RATE COVENANT BASIS - SEWAGE DISPOSAL SYSTEM As of June 30, 2021

Receipts Suburban Wholesale Customers Detroit Customers Wholesale Service Charge Revenue Local Service Revenues	<u>\$286,580,811</u> 187,959,700 120,251,068
Subtotal - Detroit Customers Earnings on investments less construction fund investment earnings	308,210,768 2,739,425
Total Revenue Disbursements Operations and Maintenance Regional System Operations and Maintenance transfer to Local System	<u>597,531,004</u> 165,588,970 69,915,700
Legacy Pension Obligations Regional System Legacy Pension Obligations Local System Total Operating Expenses	10,824,000 2,856,000 249,184,670
Pledged revenues for the year ending June 30, 2021	<u>\$ 348,346,334</u>
Principal and interest funding requirement for the year ending June 30, 2021 [1]: Senior Lien Bonds Second Lien Bonds	\$ 119,217,128 57,778,951
Total Senior and Second Lien Bonds Junior Lien Bonds	176,996,079 53,166,797
Total All Bonds	<u>\$ 230,162,876</u>
Rate Covenant Debt Service Coverage Senior Lien Bonds Senior and Second Lien Bonds All Bonds, Including SRF Junior Lien	2.92 1.97 1.51

[1] Calculated on a debt set aside basis consistent with rate covenant basis for rate determination purposes.

DEBT SERVICE COVERAGE HISTORY - WATER SYSTEM

As of June 30, 2021

	2021	2020 [4]	2019	2018	2017	2016 [1]
GAAP Basis Pledged revenue	<u>\$ 247,783,639</u>	\$ 242,657,047	\$ 243,712,390	<u>\$ 271,314,197</u>	\$ 282,545,208	\$ 276,399,904
Principal and interest funding requirement [2]: Senior lien bonds Second lien bonds	\$ 123,798,304 51,731,158	\$ 122,318,928 47,849,350	\$ 119,230,820 46,214,385	\$ 127,687,420 42,852,813	\$ 134,234,660 	\$ 128,177,999 41,178,843
Total senior and second lien bonds Junior lien bonds	175,529,462 3,684,917	170,168,278 2,700,795	165,445,205 2,521,249	170,540,233	173,224,683 1,785,328	169,356,842 1,781,683
Total all bonds	<u>\$ 179,214,379</u>	\$ 172,869,073	\$ 167,966,454	\$ 172,549,891	\$ 175,010,011	\$ 171,138,525
GAAP basis debt service coverage Senior lien bonds Senior and second lien bonds All bonds, including SRF junior lien	2.00 1.41 1.38	1.98 1.43 1.40	2.04 1.47 1.45	2.12 1.59 1.57	2.10 1.63 1.61	2.16 1.63 1.62
Rate Covenant Basis [3] Pledged revenue	<u>\$246,462,428</u>	\$ 237,025,827	<u>\$ 254,119,800</u>	\$ 264,608,700	\$ 272,268,900	
Principal and interest funding requirement [2]: Senior lien bonds Second lien bonds	\$ 123,798,304 51,731,158	\$ 122,318,928 47,849,350	\$ 119,230,820 46,214,385	\$ 127,687,420 42,852,813	\$ 134,234,660 38,990,023	
Total senior and second lien bonds Junior lien bonds	175,529,462 3,684,917	170,168,278 2,700,795	165,445,205 2,521,249	170,540,233 2,009,658	173,224,683 1,785,328	
Total all bonds	<u>\$ 179,214,379</u>	<u>\$ 172,869,073</u>	<u>\$ 167,966,454</u>	<u>\$ 172,549,891</u>	\$ 175,010,011	
Rate covenant debt service coverage Senior lien bonds Senior and second lien bonds All bonds, including SRF junior lien	1.99 1.40 1.38	1.94 1.39 1.37	2.13 1.54 1.51	2.07 1.55 1.53	2.03 1.57 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] Calculated on a debt set aside basis consistent with rate covenant basis for rate determination purposes.

[3] 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.

[4] Second and SRF Junior Lien values were restated due to a calculation error. Debt Service Coverage amounts presented may differ slightly from last year's Annual Comprehensive Financial Report

Note: This schedule is being built prospectively; ultimately, 10 years of data will be presented.

DEBT SERVICE COVERAGE HISTORY - SEWAGE DISPOSAL SYSTEM

As of June 30, 2021

	2021	2020	2019	2018	2017	2016 [1]
GAAP Basis Pledged revenue	312,386,395	318,792,554	306,491,042	311,232,453	350,855,928	328,801,416
Principal and interest funding requirement [2]: Senior lien bonds Second lien bonds	\$ 119,217,128 57,778,951	\$ 147,310,565 45,878,850	\$ 145,795,507 43,922,600	\$ 141,718,836 43,990,100	\$ 140,854,010 47,918,639	\$ 140,191,016 48,944,924
Total senior and second lien bonds Junior lien bonds	176,996,079 53,166,797	193,189,415 52,593,843	189,718,107 49,454,156	185,708,936 46,571,896	188,772,649 45,782,165	189,135,940 39,434,631
Total all bonds	\$ 230,162,876	\$ 245,783,258	\$ 239,172,263	\$ 232,280,832	\$ 234,554,814	\$ 228,570,571
GAAP basis debt service coverage Senior lien bonds Senior and second lien bonds All bonds, including SRF junior lien	2.62 1.76 1.36	2.16 1.65 1.30	2.10 1.62 1.28	2.20 1.68 1.34	2.49 1.86 1.50	2.35 1.74 1.44
Rate Covenant Basis [3] Pledged revenue	<u>\$ 348,346,334</u>	<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 lien bonds Second lien bonds	\$ 119,217,128 57,778,951	\$ 147,310,565 <u>45,878,850</u>	\$ 145,795,507 <u>43,922,600</u>	\$ 141,718,836 <u>43,990,100</u>	\$ 140,854,010 47,918,639	
Total senior and second lien bonds Junior lien bonds	176,996,079 53,166,797	193,189,415 52,593,843	189,718,107 49,454,156	185,708,936 46,571,896	188,772,649 45,782,165	
Total all bonds	\$ 230,162,876	\$ 245,783,258	\$ 239,172,263	\$ 232,280,832	\$ 234,554,814	
Rate covenant debt service coverage Senior lien bonds Senior and second lien bonds All bonds, including SRF junior lien	2.92 1.97 1.51	2.15 1.64 1.29	2.11 1.62 1.29	2.04 1.56 1.25	2.02 1.51 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.

[2] Calculated on a debt set aside basis consistent with rate covenant basis for rate determination purposes.

[3] 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.

Note: This schedule is being built prospectively; ultimately, 10 years of data will be presented.

SERVICE AREA DEMOGRAPHICS Last Ten Years

										Debt Service as
		Total Population	Unemployment	D	er Capita		Total Debt	П	ebt Per	a Percentage of
		•			•			_		•
Year	r	(1)	(2)	Inc	come (3)		Service (5)	(Capita	Income
Water Fund										
2021	1	3,800,000	4.8%	\$	53,316	(4)	\$ 179,214,379	\$	47.16	0.09%
2020)	3,800,000	11.7%		50,069	(4)	172,869,073		45.49	0.09%
2019	9	3,800,000	4.3%		54,172		162,377,261		42.73	0.08%
2018	3	3,800,000	4.3%		52,572		172,549,890		45.41	0.09%
2017	7	3,800,000	4.6%		50,863		175,010,012		46.06	0.09%
2016	3 *	3,800,000	5.3%		48,692		171,138,525		45.04	0.09%
2015	5 *	3,800,000	5.9%		46,894		178,923,900		47.09	0.10%
2014	4 *	3,800,000	8.1%		44,718		182,464,900		48.02	0.11%
2013	3 *	3,800,000	9.7%		42,555		172,458,800		45.38	0.11%
2012	2 *	3,800,000	10.1%		42,168		153,524,200		40.40	0.10%
Sewage Dispo	osal Fu	nd								
2021		2,800,000	4.8%	\$	53,316	(4)	\$ 230,162,876	\$	82.20	0.15%
2020)	2,800,000	11.7%	-	50,069	(4)	245,641,464		87.73	0.18%
2019	9	2,800,000	4.3%		54,172	()	235,381,235		84.06	0.16%
2018	3	2,800,000	4.3%		52,572		232,491,813		83.03	0.16%
2017	7	2,800,000	4.6%		50,863		234,554,814		83.77	0.16%
2016	3 *	2,800,000	5.3%		48,692		228,570,571		81.63	0.17%
2015	5 *	2,807,000	5.9%		46,894		232,612,800		82.87	0.18%
2014	4 *	2,807,000	8.1%		44,718		229,611,100		81.80	0.18%
2013	3 *	2,807,000	9.7%		42,555		225,222,900		80.24	0.19%
2012	2 *	2,807,000	10.1%		42,168		203,092,300		72.35	0.17%

(1) Source: Estimated based on data from Southeast Michigan Council of Governments (SEMCOG).

(2) Source: Bureau of Labor Statistics Detroit-Warren-Dearborn MSA Annual Average (For 2021 the June rate was used). The Detroit-Warren-Dearborn Metropolitan Statistical Area (MSA) is comprised of six counties: Wayne, Oakland, Macomb, Livingston, Lapeer and St. Clair. This represents the majority of the service area customers.

(3) Source: FRED Economic Data, St. Louis Fed

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(4) Source: Michigan State University Center for Economic Analysis

(5) Debt service is based on set aside debt service requirements for the fiscal year which includes the subsequent year July 1st debt payment.

* GLWA assumed operations on January 1, 2016. The information in this table from 2012-2015 is based on operations under the City of Detroit Water and Sewerage Department (DWSD). Data for 2016 includes six months of operation under DWSD and six months of operation under GLWA.

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LARGEST EMPLOYERS

Current Year and 9 years prior

		F	iscal Ye	ar 2021	F	ar 2012	
		Full- Time			Full- Time		
		Employees		Percent of Total	Employees		Percent of Tota
Employer	Type of Business	(a)	Rank	Employment (b)	(c)	Rank	Employment (d)
Ford Motor Co.	Automobile Manufacturer	46,000	1	2.45%	39,134	1	2.16%
FCA US LLC/Chrysler Group LLC	Automobile Manufacturer	38,744	2	2.07%	25,733	4	1.42%
University of Michigan	Public University and Health System	36,323	3	1.94%	28,525	2	1.57%
General Motors Co.	Automobile Manufacturer	32,645	4	1.74%	25,813	3	1.42%
Beaumont Health	Health Care System	25,786	5	1.38%	12,767	9	0.70%
Henry Ford Health System	Health Care System	21,369	6	1.14%	18,402	6	1.01%
U.S. Government	Federal Government	18,893	7	1.01%	19,033	5	1.05%
Rocket Companies	Holding company consisting of personal finance and	15,250	8	0.81%	n/a	n/a	n/a
	consumer service brands						
Trinity Health	Health Care System	14,575	9	0.78%	13,828	7	0.76%
Ascension Michigan	Health Care System	12,771	10	0.68%	n/a	n/a	n/a
Detroit Medical Center	Health Care System	n/a	n/a	n/a	13,499	8	0.74%
St. John Providence Health System	Health Care System	n/a	n/a	n/a	12,649	10	0.70%
Total		262,356		14.00%	209,383		11.53%

(a) Employment data from July 2020 Crain's Detroit Business (most recent available), Largest Southeast Michigan Employers - Ranked by full-time employees

(b) Percentage base on U.S. Bureau of Labor Statistics from June 2020 of 1,875,294 for the Detroit-Warren-Dearborn, MI Metropolitan Statistical Area

(c) Employment data from July 2012 Crain's Detroit Business, Largest Metro Detroit Employers - Ranked by full-time employees

(d) Percentage base on U.S. Bureau of Labor Statistics from July 2012 of 1,813,877 for the Detroit-Warren-Dearborn, MI Metropolitan Statistical Area

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		Rep	oorted Water Sales			
Fiscal Year	Estimated Total Water Produced (Mcf) [1]	Wholesale Customer Billed (Mcf) [2]	Local System Billed (Mcf) [3]	Total Water Billed (Mcf)	Estimated Non-Revenue Water (Mcf)	Estimated Non-Revenue % of Production
2021	20,565,800	14,258,300	4,120,000	18,378,300	2,187,500	10.6%
2020	19,989,500	13,578,700	4,161,300	17,740,000	2,249,500	11.3%
2019	20,968,100	13,708,600	4,354,600	18,063,200	2,904,900	13.9%
2018	23,228,600	14,391,800	4,428,200	18,820,000	4,408,600	19.0%
2017	23,915,600	14,824,000	4,465,800	19,289,800	4,625,800	19.3%
2016	* 23,580,700	14,730,400	4,649,100	19,379,500	4,201,200	17.8%

PRODUCED AND BILLED WATER VOLUMES

The table for historical water sales and reported total water production presents water volume in thousands of cubic feet ("Mcf") for suburban wholesale customers, for the Retail Water Customers, and for the Regional Water System as a whole, together with total water production and non-revenue water volume. As is common for all large water systems, the Regional Water System experiences a differential between the quantity of water produced by the treatment plants during the fiscal year and the quantity of water billed to customers over the same period, and the difference is referred to as "non-revenue water." Non-revenue water results from a variety of factors such as the range of accuracy of production and retail meters, losses due to leaks or major breaks in the transmission and distribution systems, unmetered water that is used for fire protection, and the accuracy of estimates for unmetered use. The Authority believes that improvements in the accuracy of the reported production figures may reduce the level of non-revenue water. Production at some of the water plants is not metered, but rather is estimated based on pump curves. The data continues to be reviewed, and the Authority has initiated efforts to measure production figures and refine production estimating techniques.

The schedule of charges for each of the wholesale customers consists of a fixed monthly charge and a commodity charge applied to monthly metered water usage. While the overall methodology used to determine charges for each customer is uniform, the service charge schedule for each customer is unique, reflecting the specific volumes, peak demands, and other demographic information in their individual contracts. Charges are designed to recover 60% of the revenue requirement via fixed monthly charges, with the other 40% generated by commodity charges.

- [1] Represents, in part, estimated volumes based on pump curves and engineering analysis. GLWA engineering studies in 2017 concluded that the total water production values for calendar year 2016 were over-reported by 5.8%.
- [2] Represents metered amounts for all suburban wholesale customers, with the exception of Dearborn which is based on selfreported billed volumes (including local system losses), and Highland Park, which is based on estimated volumes.
- [3] The GLWA charges the DWSD local system a flat charge based on average historical usage from DWSD retail billings data adjusted for water loss. These amounts reflect retail water sales as reported by DWSD plus estimated real and apparent losses in the local distribution system based on engineering studies.
 - * GLWA assumed operations on January 1, 2016. Data for 2016 includes six months of operation under DWSD and six months of operation under GLWA. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

GREAT LAKES WATER AUTHORI	ΤY
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	Total	Customer Wastev	vater Volume [2]	
Fiscal	Wastewater	Metered	Unmetered	"System"
Year	Influent [1]	Customers	Customers [3]	Volume [3]
2021 (preliminary)	27,589,600	11,768,100	9,475,900	6,345,600
2020	30,758,900	13,714,800	9,590,200	7,453,900
2019	33,992,100	14,569,600	10,927,200	8,495,300
2018	32,038,300	13,587,800	10,487,000	7,963,500
2017	33,458,500	14,072,100	10,788,000	8,598,400
2016 *	29,177,900	12,717,100	11,288,400	5,172,400

WASTEWATER VOLUMES (Mcf)

[1] Represents total influent volume to the System, including volumes treated and discharged at the Water Resource Recovery Facility and volumes discharged via Combined Sewer Overflow facilities

[2] The GLWA Sewer Charge Methodology uses historical wastewater volumes to allocate annual revenue requirements to the member partners based on historical wastewater volumes, and recovers the allocated revenue requirements via fixed monthly charges.

[3] The GLWA Sewer Charge Methodology assigns a portion of the unmetered non-sanitary flow volume as a "system" responsibility allocable to all member partners. The remaining amount is assigned to unmetered customers, which includes the Local System and certain wholesale customers.

* GLWA assumed operations on January 1, 2016. Data for 2016 includes six months of operation under City of Detroit Water and Sewerage Department (DWSD) and six months of operation under GLWA. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

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ADDITIONAL SUMMARY STATISTICS Last Six Years

	2021	2020	2019	2018	2017	2016
Capital Asset Statistics - Water						
Water Treatment Plants	5	5	5	5	5	5
Intake Facilities	3	3	3	3	3	3
Booster Pumping Stations	19	19	19	19	19	19
Water Storage Reservoirs	32	32	32	32	32	32
Miles of Transmission Lines	816	816	816	803	803	803
Capital Asset Statistics - Sewer						
Water Resource Recovery Facility	1	1	1	1	1	1
Major Interceptors	3	3	3	3	3	3
Pump Stations [1]	9	9	9	9	9	9
Combined Sewer Overflow Facilities:						
Retention Treatment Basins	5	5	5	5	5	5
Flow-through Type Facilities	3	3	3	3	3	3
Miles of Trunk Sewers and Interceptors	195	195	195	181	181	181
GLWA Employees						
Water Operations	211	211	213	205	180	155
Sewage Disposal Operations	320	344	369	358	342	320
Centralized Services	298	302	295	276	249	217
Administrative Services	156	152	147	129	110	90
Total Employees	985	1,009	1,024	968	881	782

[1] GLWA operates nine pump stations. This count includes four pump stations that are owned by DWSD and operated by GLWA under a shared services agreement.

GLWA began operations on January 1, 2016. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.





Financial Services Area 735 Randolph, Suite 1608 Detroit, Michigan 48226 Attachment 4

Draft Scheduled of Expenditures of Federal Awards

Great Lakes Water Authority

Report on Federal Awards

June 30, 2021



Table of Contents For the Year Ended June 30, 2021

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

To the Board of Directors of Great Lakes Water Authority

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities, and each major fund of the Great Lakes Water Authority (the Authority), as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise the Great Lakes Water Authority's basic financial statements, and have issued our report thereon dated December 8, 2021.

Internal Control Over Financial Reporting

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

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

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

Compliance and Other Matters

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

Purpose of This Report

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

Madison, Wisconsin December 8, 2021

Independent Auditors' Report on Compliance for the Major Federal Program; Report on Internal Control Over Compliance; and Report on the Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

To the Board of Directors of Great Lakes Water Authority

Report on Compliance for the Major Federal Program

We have audited the Great Lakes Water Authority's (the Authority) compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on the Authority's major federal program for the year ended June 30, 2021. The Authority's major federal program is identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations and the terms and conditions of its federal awards applicable to its federal program.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for the Authority's major federal program based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the Authority's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for the major federal program. However, our audit does not provide a legal determination of the Authority's compliance.

Opinion on the Major Federal Program

In our opinion, the Authority complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on its major federal program for the year ended June 30, 2021.

Report on Internal Control Over Compliance

Management of the Authority is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Authority's internal control over compliance with the types of requirements that could have a direct and material effect on the major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for the major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control over compliance.

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

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

Purpose of This Report

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

We have audited the financial statements of the business-type activities, and each major fund of the Great Lakes Water Authority, as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise the Great Lakes Water Authority's basic financial statements. We issued our report thereon dated December 8, 2021, which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the basic financial statements as a whole.

Madison, Wisconsin December 8, 2021



Great Lakes Water Authority

Schedule of Expenditures of Federal Awards For the Year Ended June 30, 2021

Federal Grantor/ Program Title	CFDA Number	Pass-through Agency Grant Number	Payments Made to Subrecipients	Federal Expenditures
Federal Programs				
U.S ENVIRONMENTAL PROTECTION AGENCY				
Passed-through the Michigan Department of Environment, Great Lakes and Energy				
Clean Water State Revolving Fund Cluster				
Capitalization Grants for Clean Water State Revolving Funds:				
State Revolving Fund Loan	66.458	5636-01	\$-	\$ 1,281,855
State Revolving Fund Loan	66.458	5655-01	-	2,752,741
State Revolving Fund Loan	66.458	5655-02	-	8,106,576
State Revolving Fund Loan	66.458	5673-01		1,292,675
Total Clean Water State Revolving Fund Cluster				13,433,847
Passed-through the Michigan Department of Environment, Great Lakes and Energy				
Drinking Water State Revolving Fund Cluster				
Capitalization Grants for Drinking Water State Revolving Funds:				
State Revolving Fund Loan	66.468	7445-01	-	2,544,575
State Revolving Fund Loan	66.468	7446-01	-	1,106,124
State Revolving Fund Loan	66.468	7447-01	2,813,497	2,813,497
State Revolving Fund Loan	66.468	7460-01	6,757,649	6,757,649
State Revolving Fund Loan	66.468	7461-01		1,210,245
Total Drinking Water State Revolving Fund Cluster			9,571,146	14,432,090
Total Federal Programs			\$ 9,571,146	\$ 27,865,937



Notes to Schedule of Expenditures of Federal Awards For the Year Ended June 30, 2021

1. Basis of Presentation

The accompanying schedule of expenditures of federal awards (the Schedule) includes the federal award activity of the Great lakes Water Authority (Authority) under programs of the federal government for the year ended June 30, 2021. The information in this Schedule is presented in accordance with the requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Because the Schedule presents only a selected portion of the operations of the Authority, it is not intended to and does not present the financial position, changes in net position or cash flows of the Authority.

2. Summary of Significant Accounting Policies

Expenditures reported on the Schedule are reported on the modified cash basis of accounting, which is described as follows:

Basis of Accounting

In general, expenditures are reported in the Schedule when the Authority remits payment to a vendor or contractor, rather than when an expense is incurred by the Authority in accordance with Generally Accepted Accounting Principles (GAAP). Additionally, any amounts paid to subrecipients are included when paid or transferred instead of when incurred. The Authority reports its expenditures using this method based on guidance it received from the Michigan Department of Environment, Great Lakes, and Energy (EGLE), which serves as the pass-through entity for all of the Authority's federally funded loan programs.

Pre-Award Costs

In addition to the above, the EGLE may approve reimbursement of costs related to projects undertaken (and paid to vendors) in prior periods. In those cases, as the payments were not previously reported as federal expenditures, they are reported on the Schedule in the period reimbursement is approved by the EGLE which is normally with the initial project cash draw.

Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement. Pass-through entity identifying numbers are presented where available.

3. Indirect Cost Rate

The Authority has not elected to use the 10 percent de minimis indirect cost rate.



Schedule of Findings and Questioned Costs For the Year Ended June 30, 2021

Section I - Summary of Auditors' Results

Financial Statements

Type of report the auditor issued o financial statements audited were p accordance with GAAP:		Unmod	lified		
Internal control over financial repo Material weakness identified? Significant deficiency identified	C C		yes yes	<u>X</u> X	no none reported
Noncompliance material to financia	I statements noted?		yes	X	no
Federal Awards					
Internal control over major progran Material weakness identified? Significant deficiency identified	?		yes yes	X	no none reported
Type of auditor's report issued on c for major programs:	compliance	Unmod	dified		
Any audit findings disclosed that ar reported in accordance with sectior the Uniform Guidance?		f	yes	X	no
Auditee qualified as low-risk audite	e?	Х	yes		no
Identification of major federal progr	ams:				
CFDA Number 66.468	Name of Federal Pr Drinking Water State Grants for Drinkin	e Revolv	ring Fund	Cluster -	
Dollar threshold used to distinguish and type B programs:	i between type A		\$ 835,97	78	_



Schedule of Findings and Questioned Costs For the Year Ended June 30, 2021

Section II - Financial Statement Findings Required to be Reported in Accordance with *Government Auditing Standards*

None reported.

Section III - Federal Awards Findings and Questioned Costs

None reported.

Attachment 5

Draft Baker Tilly Reporting & Insights from 2021 Audit



Reporting and insights from 2021 audit:

Great Lakes Water Authority

June 30, 2021

Executive summary

December 8, 2021

To the Board of Directors Great Lakes Water Authority Detroit, Michigan

We have completed our audit of the financial statements of the Great Lakes Water Authority (the "Authority") for the year ended June 30, 2021 and have issued our report thereon December 8, 2021. This letter presents communications required by our professional standards.

Your audit should provide you with confidence in your financial statements. The audit was performed based on information obtained from meetings with management, data from your systems, knowledge of your Authority's operating environment and our risk assessment procedures. We strive to provide you clear, concise communication throughout the audit process and of the final results of our audit.

Additionally, we have included information on key risk areas Great Lakes Water Authority should be aware of in your strategic planning. We are available to discuss these risks as they relate to your organization's financial stability and future planning.

If you have questions at any point, please connect with us:

- Jodi L Dobson, Partner: jodi.dobson@bakertilly.com or +1 (608) 240 2469
- Gwen Zech, Senior Manager: gwen.zech@bakertilly.com or +1 (608) 240 2443

Sincerely,

Baker Tilly US, LLP

Jodi L Dobson, CPA, Partner

Gwen Zech, CPA, Senior Manager

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THIS COMMUNICATION IS INTENDED SOLELY FOR THE INFORMATION AND USE OF THOSE CHARGED WITH GOVERNANCE, AND, IF APPROPRIATE, MANAGEMENT, AND IS NOT INTENDED TO BE AND SHOULD NOT BE USED BY ANYONE OTHER THAN THESE SPECIFIED PARTIES.

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Responsibilities

Responsibilities

Our responsibilities

As your independent auditor, our responsibilities include:

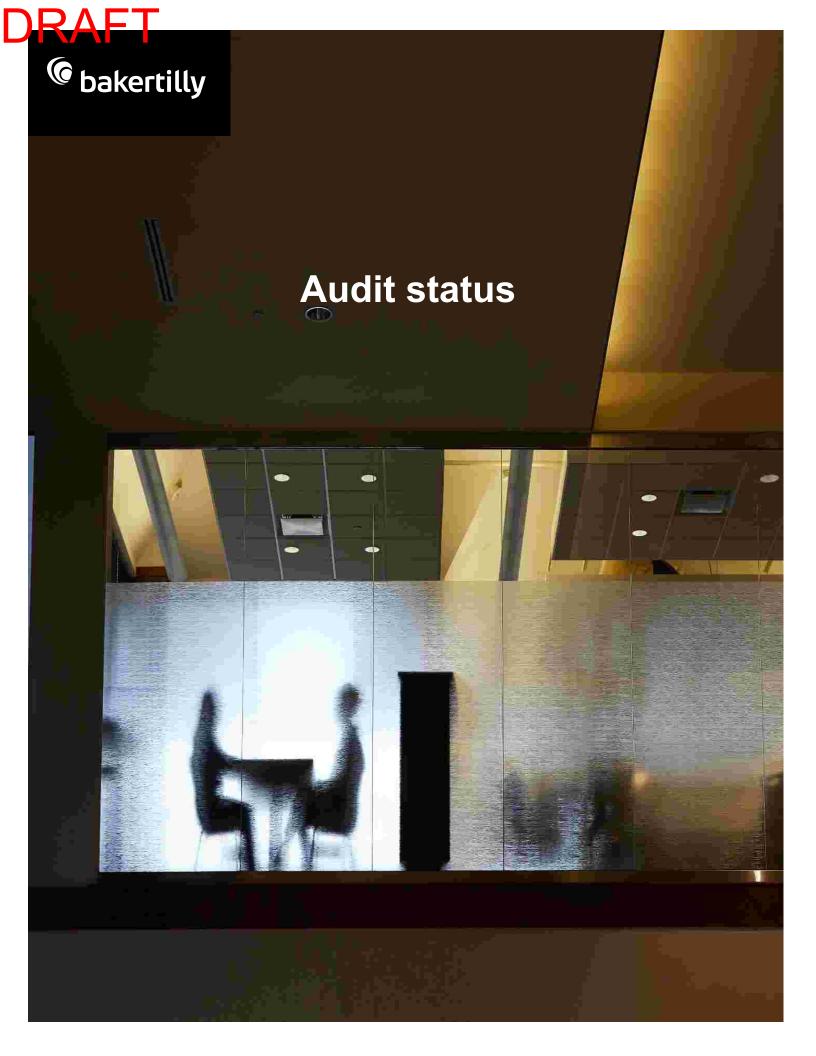
- Planning and performing the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. Reasonable assurance is a high level of assurance.
- Assessing the risks of material misstatement of the financial statements, whether due to fraud or error. Included in that assessment is a consideration of the Authority's internal control over financial reporting.
- Performing appropriate procedures based upon our risk assessment.
- Evaluating the appropriateness of the accounting policies used and the reasonableness of significant accounting estimates made by management.
- Forming and expressing an opinion based on our audit about whether the financial statements prepared by management, with the oversight of the Board of Directors:
 - Are free from material misstatement
 - Present fairly, in all material respects and in accordance with accounting principles generally accepted in the United States of America
- Performing tests related to compliance with certain provisions of laws, regulations, contracts and grants, as required by *Government Auditing Standards*
- Considering internal control over compliance with requirements that could have a direct and material effect on major federal programs to design tests of both controls and compliance with identified requirements
- Forming and expressing an opinion based on our audit in accordance with OMB's Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards (Uniform Guidance) about the entity's compliance with requirements described in the OMB Compliance Supplement that could have a direct and material effect on each of its major federal programs.

We are also required to communicate significant matters related to our audit that are relevant to the responsibilities of the Board of Directors, including:

- Qualitative aspects of the Authority's accounting practice including policies, accounting estimates and financial statement disclosures
- Significant difficulties encountered
- Disagreements with management
- Corrected and uncorrected misstatements
- Internal control matters
- Significant estimates
- Other findings or issues arising from the audit

Management's responsibilities

Manager	nent	Auditor
\$≡,	Prepare and fairly present the financial statements	Our audit does not relieve management or the Board of Directors of their responsibilities
Â	Establish and maintain effective internal control over financial reporting and compliance with laws, regulations, contracts and grants	An audit includes consideration of internal control over financial reporting, but not an expression of an opinion on those controls
(O)	Compliance with the types of requirements described in the OMB Compliance Supplement	While our audit provides a reasonable basis for our opinion on compliance, it does not provide a legal determination on compliance with those requirements.
E	Provide us with written representations at the conclusion of the audit	See Appendix B for a copy of management's representations





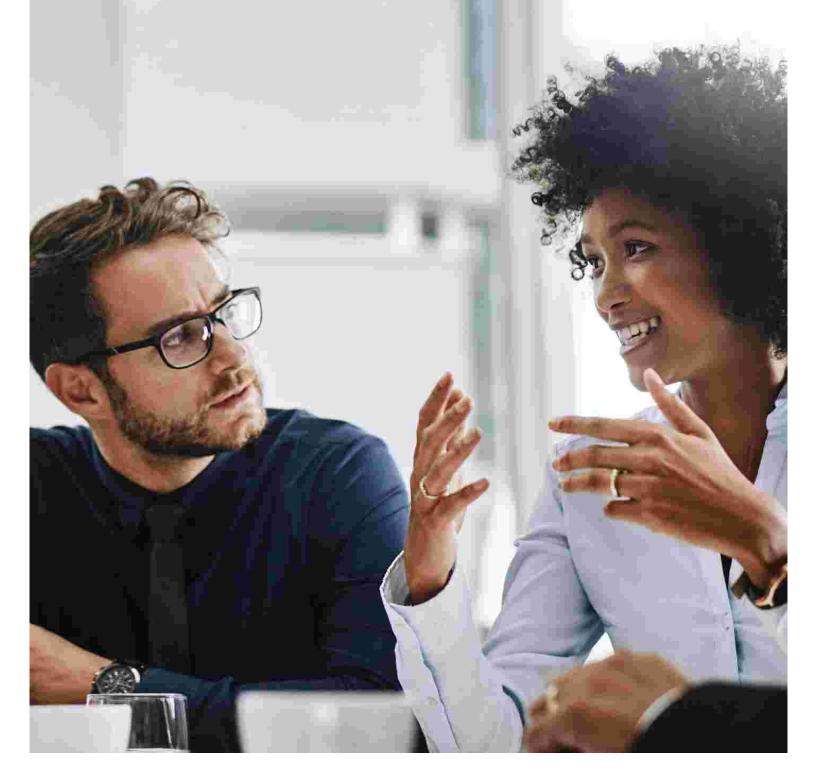
Audit status

Significant changes to the audit plan

There were no significant changes made to either our planned audit strategy or to the significant risks and other areas of emphasis identified during the performance of our risk assessment procedures.



Audit approach and results



Audit approach and results

Planned scope and timing

Audit focus

Based on our understanding of the Authority and environment in which you operate, we focused our audit on the following key areas:

- Key transaction cycles
- Areas with significant estimates
- Implementation of new accounting standards

Our areas of audit focus were informed by, among other things, our assessment of materiality. Materiality in the context of our audit was determined based on specific qualitative and quantitative factors combined with our expectations about the Authority's current year results.

Key areas of focus and significant findings

Significant risks of material misstatement

A significant risk is an identified and assessed risk of material misstatement that, in the auditor's professional judgment, requires special audit consideration. Within our audit, we focused on the following areas below.

Significant risk areas	Testing approach	Conclusion
Management override of controls	Incorporate unpredictability into audit procedures, emphasize professional skepticism and utilize audit team with industry expertise	Procedures identified provided sufficient evidence for our audit opinion
Improper revenue recognition due to fraud	Confirmation or validation of certain revenues supplemented with detailed predictive analytics based on nonfinancial data and substantive testing of related receivables	Procedures identified provided sufficient evidence for our audit opinion



Other key areas of emphasis

We also focused on other areas that did not meet the definition of a significant risk but were determined to require specific awareness and a unique audit response.

Other key areas of emphasis	Testing approach	
Cash and investments	Revenues and receivables	General disbursements
Payroll	Pension Liability	Long-term debt
Capital assets including intangible assets	Net position calculations	Financial reporting and required disclosures
Shared services with and received from DWSD	Lease payables	Due to and due from other governments

Internal control matters

We considered the Authority's internal control over financial reporting as a basis for designing our audit procedures for the purpose of expressing an opinion on the financial statements. We are not expressing an opinion on the effectiveness of the Authority's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and, therefore, material weaknesses or significant deficiencies may exist that were not identified.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis.

A material weakness is a deficiency or combination of deficiencies in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. We did not identify any deficiencies in internal control that we consider to be material weaknesses.

Required communications

Qualitative aspect of accounting practices

- Accounting policies: Management is responsible for the selection and use of appropriate accounting policies. In accordance with the terms of our engagement letter, we have advised management about the appropriateness of accounting policies and their application. The significant accounting policies used by the Authority are described in Note 1 to the financial statements. As described in Note 1, the Authority changed accounting policies related to Leases, Fiduciary Activities and Majority Equity Interests by adopting GASB 87, GASB 84 and GASB 90, respectively in 2021. Accordingly, the accounting change has been retrospectively applied to the prior period presented. We noted no transactions entered into by the Authority during the year for which accounting policies are controversial or for which there is a lack of authoritative guidance or consensus or diversity in practice.
- Accounting estimates: Accounting estimates, including fair value estimates, are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements, the degree of subjectivity involved in their development and because of the possibility that future events affecting them may differ significantly from those expected. The following estimates are of most significance to the financial statements:

Estimate	Management's process to determine	Baker Tilly's conclusions regarding reasonableness
Net pension liability and related deferrals	Key assumptions set by management with the assistance of a third-party actuary	Reasonable in relation to the financial statements as a whole
Allowance for doubtful accounts	Evaluation of historical revenues and loss levels with the analysis on collectability of individual amounts	Reasonable in relation to the financial statements as a whole
Depreciation	Evaluate estimated useful life of the asset and original acquisition value	Reasonable in relation to the financial statements as a whole
Shared services subject to joint review and true up	Evaluation based on joint review and agreement between parties	Reasonable in relation to the financial statements as a whole

There have been no significant changes made by management to either the processes used to develop the particularly sensitive accounting estimates, or to the significant assumptions used to develop the estimates, noted above.

- Financial statement disclosures: The disclosures in the financial statements are neutral, consistent and clear.

Significant difficulties encountered during the audit

We encountered no significant difficulties in dealing with management and completing our audit.



Other audit findings or issues

We encountered no other audit findings or issues that require communication at this time.

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the Authority's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Disagreements with management

Professional standards define a disagreement with management as a matter, whether or not resolved to our satisfaction, concerning a financial accounting, reporting, or auditing matter that could be significant to the financial statements or the auditors' report. We are pleased to report that no such disagreements arose during the course of our audit.

Uncorrected misstatements and corrected misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. There were no misstatements identified.

Significant unusual transactions

There have been no significant transactions that are outside the normal course of business for the Authority or that otherwise appear to be unusual due to their timing, size or nature.

Management's consultations with other accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters. Management informed us that, and to our knowledge, there were no consultations with other accountants regarding auditing or accounting matters.

Written communications between management and Baker Tilly

The Appendix includes copies of other material written communications, including a copy of the management representation letter.

Compliance with laws and regulations

We did not identify any non-compliance with laws and regulations during our audit.

We will issue a separate document which contains the results of our audit procedures to comply with the Uniform Guidance.

Fraud

We did not identify any known or suspected fraud during our audit.

Going concern

Pursuant to professional standards, we are required to communicate to you, when applicable, certain matters relating to our evaluation of the Authority's ability to continue as a going concern for a reasonable period of time but no less than 12 months from the date the financial statements are issued or available to be issued, including the effects on the financial statements and the adequacy of the related disclosures, and the effects on the auditor's report. No such matters or conditions have come to our attention during our engagement.



Independence

We are not aware of any relationships between Baker Tilly and the Authority that, in our professional judgment, may reasonably be thought to bear on our independence.

Related parties

We did not have any significant findings or issues arise during the audit in connection with the Authority's related parties.

Other matters

We applied certain limited procedures to the required supplementary information (RSI) that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the supplementary information which accompanies the financial statements but is not RSI. With respect to the supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America or the modified cash basis of accounting, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

We were not engaged to report on the other information, which accompanies the financial statements but are not RSI. We did not audit or perform other procedures on this other information and we do not express an opinion or provide any assurance on it.



Accounting changes relevant to Great Lakes Water Authority

Accounting changes relevant to Great Lakes Water Authority

Future accounting standards update

GASB Statement Number	Description	Potentially Impacts you	Effective Date
91	Conduit Debt		6/30/23
92	Omnibus 2020	\odot	6/30/22
93	Replacement of Interfund Bank Offered Rates		6/30/22
94	Public-Private and Public-Public Partnerships and Availability Payment Arrangements	\checkmark	6/30/23
96	Subscription-Based Information Technology Arrangements	Ø	6/30/23
97	Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans		6/30/22

* The statements listed above through Statement No. 93 had their required effective dates postponed by one year with the issuance of Statement No. 95, *Postponement of Effective Dates of Certain Authoritative Gui*dance, with the exception of Statement No. 87 which was postponed by one and a half years. The effective date reflected above is the required revised implementation date.

Further information on upcoming GASB pronouncements.



Trending challenges and opportunities for organizations



Trending challenges and opportunities for organizations

Management and governing bodies must keep the future in mind as they evaluate strategies to achieve future growth. Keeping a balance between risk and sustainability is key, and organizations need to think beyond their immediate needs to their long-term goals. Economic uncertainty, coupled with key risk areas and fast-paced technology change, make strategic planning complex. Begin the discussion with your management team to find your path to your future.

Turning toward recovery and growth

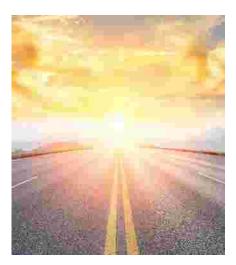
Many organizations are focusing on the strategic restart and ramp up of their operations.

With great uncertainty about what recovery will look like–or how long it will take–it is essential for your organization to understand the scenarios you may face and plan your path back to growth.

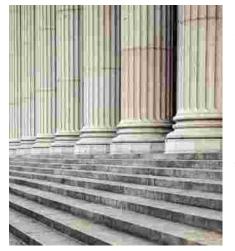
We can help you chart a way forward that will enhance and maximize your value, minimize further disruption and keep your workforce safe.

Recommendation

Follow our road map to reopen, recover and reset.



Compliance with federal awards



Challenge

The COVID-19 crisis has had a significant effect on the nation, including recipients of federal awards resulting from various congressional acts. Federal funding adds an increased level of scrutiny and brings new challenges around compliance, reporting and administration.

Finance and spending departments are operating in unprecedented times as they manage and administer these funds while also remaining economically viable, maintaining operations and adapting to the "new normal."

Recommendation

Learn more about <u>compliance for federal funds</u> obtained for pandemic response efforts.

Recession proofing measures



technology are imperative.

Recommendation

Challenge

Ever aware of the need to balance the needs of diverse constituents against constrained revenue streams and conflicting priorities, public leaders strive to effectively deploy scarce resources while maintaining the highest levels of accountability and transparency.

In times of crisis, additional challenges emerge to maintain essential services, ensure citizen safety, protect their workforce and jumpstart programs to mitigate negative local economic impacts–all while focusing on planning for long-term effects of revenue shortages and the subsequent recovery.

Developing strategic clarity, aligning resources with priorities, strengthening performance, optimizing processes and leveraging

Learn about <u>proactive measures to insulate your organization</u> from financial hardship and to <u>optimize your</u> <u>organization's performance</u>.

Recruiting and hiring

Challenge

Public sector entities in need of key workforce personnel, such as city or county managers and administrators, city or county attorneys, fire chiefs, police chiefs and other departmental directors, may find themselves in an unenviable position during a pandemic.

Organizations need the talent, but a pandemic can disrupt essential business processes and cause apprehension about access to desirable candidates.

Hiring leaders should proactively discuss what-if scenarios, evaluate short-term and long-term hiring priorities, and plan for situations where immediate recruitment is imperative.

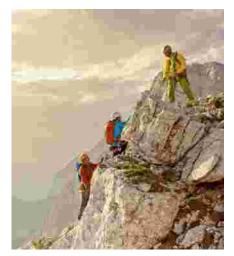
Recommendation

Learn the key considerations and actions for recruiting and hiring in a crisis.



Risk assessment

Challenge



Organizations today manage ever-expanding priorities in a constantly evolving, disruptive risk environment. Undetected risks, insufficient internal controls and inefficient business processes may negatively impact not only the entity but also its workforce and the community at large.

Risk assessment and internal audit prove essential to identifying top risks and the appropriateness of response in order to:

- Manage risk and compliance
- Enhance governance and strategy
- Optimize operations
- Gain assurance around key functions and processes that contribute toward meeting organizational goals

Recommendation

Learn about the key considerations for the risk assessment process and internal audit planning.

Economic development

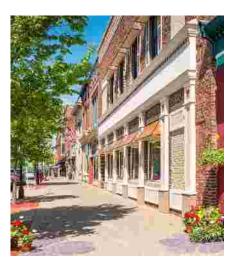
Challenge

In today's complex economic landscape, communities face the daunting challenge of rebuilding their local economies. Restoring the momentum of economic expansion and investment to enhance quality of life for residents and produce long-term financial gain for the community is at the forefront of concerns.

Whether attracting growth to maximize opportunity built around community strengths or accounting for the many unknowns caused by major disruptions, a robust economic development strategy is essential to recovery.

Recommendation

Learn about the advantages of creating an <u>economic development</u> <u>strategic plan and the framework</u> to follow.





Harnessing data and analytics for strategic insight and decision-making



Challenge

In crisis and recovery, organizations are investing in advanced analytic solutions to help them not only make better decisions faster and more consistently, but also to improve operational efficiency and performance. Of all the business analytics available, advanced analytic solutions should be at the top of your priority list given the impact it can have on your business.

Recommendation

Learn more about <u>data & analytics strategy and roadmaps</u>, <u>MDM and data process re-engineering</u>, <u>AI</u> <u>strategy</u>, <u>data visualization</u> and other digital and analytic capabilities.

Information technology and cybersecurity



Challenge

While return-to-work scenarios are being developed, it is likely that remote workforces will remain a reality for many organizations in the short- to mid-term. Though many organizations have been able to adapt on a short-term basis, some will not be prepared for long-term operation on a remote and virtual basis. Organizations should increase monitoring of invasive cyber events, given the likely increase in hackers sending out fake emails, website links and ransomware attacks – and also consider:

- Adequacy of IT controls and security
- Performance of remote infrastructure supporting operations
- Improvements to remote applications for communication, collaboration and workflow
- Alternatives for data entry, work and information flow

Recommendation

<u>Learn more</u> about information technology and cybersecurity, including <u>System & Organization Controls</u> reporting.



Appendix A: Client service team

Client service team



Jodi L Dobson, CPA

Partner

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Appendix B: Management representation letter



December 8, 2021

Baker Tilly US, LLP 4807 Innovate Ln. PO Box 7398 Madison, WI 53707

Dear Baker Tilly US, LLP:

We are providing this letter in connection with your audit of the financial statements of the Great Lakes Water Authority as of June 30, 2021 and for the year then ended for the purpose of expressing opinions as to whether the financial statements present fairly, in all material respects, the financial position of the Great Lakes Water Authority (Authority), each major enterprise fund, and the respective changes in financial position and cash flows, where applicable, in conformity with accounting principles generally accepted in the United States of America. We confirm that we are responsible for the fair presentation of the previously mentioned financial statements in conformity with accounting principles generally accepted in the United States of America. We are also responsible for adopting sound accounting policies, establishing and maintaining internal control over financial reporting, and preventing and detecting fraud.

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement. An omission or misstatement that is monetarily small in amount could be considered material as a result of qualitative factors.

We confirm, to the best of our knowledge and belief, the following representations made to you during your audit.

Financial Statements

- 1) We have fulfilled our responsibilities, as set out in the terms of the audit engagement letter.
- 2) The financial statements referred to above are fairly presented in conformity with accounting principles generally accepted in the United States of America. We have engaged you to advise us in fulfilling that responsibility. The financial statements include all properly classified funds of the Authority required by accounting principles generally accepted in the United States of America to be included in the financial reporting entity.
- 3) We acknowledge our responsibility for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements.



- 4) We acknowledge our responsibility for the design, implementation, and maintenance of internal control to prevent and detect fraud.
- 5) Significant assumptions we used in making accounting estimates, if any, are reasonable.
- 6) All events subsequent to the date of the financial statements and for which accounting principles generally accepted in the United States of America require adjustment or disclosure have been adjusted or disclosed. No other events, including instances of noncompliance, have occurred subsequent to the financial statement date and through the date of this letter that would require adjustment to or disclosure in the aforementioned financial statements or in the schedule of findings and questioned costs.
- 7) All material transactions have been recorded in the accounting records and are reflected in the financial statements and the schedule of expenditures of federal and state awards.
- 8) There are no known or possible litigation, claims, and assessments whose effects should be considered when preparing the financial statements, except those which have already been disclosed to you. There are no unasserted claims or assessments that our lawyer has advised us are probable of assertion and must be disclosed in accordance with accounting principles generally accepted in the United States of America.
- 9) Guarantees, whether written or oral, under which the Authority is contingently liable, if any, have been properly recorded or disclosed.

Information Provided

- 10) We have provided you with:
 - a) Access to all information, of which we are aware, that is relevant to the preparation and fair presentation of the financial statements, such as financial records and related data, documentation, and other matters and all audit or relevant monitoring reports, if any, received from funding sources.
 - b) Additional information that you have requested from us for the purpose of the audit.
 - c) Unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.
 - d) Minutes of the meetings of Board of Directors or summaries of actions of recent meetings for which minutes have not yet been prepared.
- 11) We have disclosed to you results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.
- 12) We have no knowledge of any fraud or suspected fraud that affects the entity and involves:
 - a) Management,
 - b) Employees who have significant roles in internal control, or
 - c) Others where the fraud could have a material effect on the financial statements.





- 13) We have no knowledge of any allegations of fraud or suspected fraud affecting the entity received in communications from employees, former employees, regulators, or others.
- 14) We have no knowledge of known instances of noncompliance or suspected noncompliance with provisions of laws, regulations, contracts, or grant agreements, or abuse, whose effects should be considered when preparing financial statements.
- 15) There are no known related parties or related party relationships and transactions of which we are aware.

Other

- 16) There have been no communications from regulatory agencies concerning noncompliance with, or deficiencies in, financial reporting practices.
- 17) We have taken timely and appropriate steps to remedy fraud, noncompliance with provisions of laws, regulations, contracts or grant agreements, or abuse that you have reported to us.
- 18) We have a process to track the status of audit findings and recommendations.
- 19) We have provided our views on reported findings, conclusions, and recommendations, as well as our planned corrective actions, for our report.
- 20) The Authority has no plans or intentions that may materially affect the carrying value or classification of assets, liabilities, or equity.
- 21) We are responsible for compliance with federal, state, and local laws, regulations, and provisions of contracts and grant agreements applicable to us, including tax or debt limits, debt contracts, and IRS arbitrage regulations; and we have identified and disclosed to you all federal, state, and local laws, regulations and provisions of contracts and grant agreements that we believe have a direct and material effect on the determination of financial statement amounts or other financial data significant to the audit objectives, including legal and contractual provisions for reporting specific activities in separate funds.
- 22) There are no:
 - a) Violations or possible violations of budget ordinances, federal, state, and local laws or regulations (including those pertaining to adopting, approving and amending budgets), provisions of contracts and grant agreements, tax or debt limits, and any related debt covenants whose effects should be considered for disclosure in the financial statements or as a basis for recording a loss contingency, or for reporting on noncompliance, except those already disclosed in the financial statement, if any.
 - b) Other liabilities or gain or loss contingencies that are required to be accrued or disclosed by accounting principles generally accepted in the United States of America.
 - c) Charges and/or rates being charged to customers other than the changes and/or rates as authorized by the applicable authoritative body.
 - d) Violations of restrictions placed on revenues as a result of bond resolution covenants such as revenue distribution or debt service funding.



- 23) The Great Lakes Water Authority has satisfactory title to all owned assets, and there are no liens or encumbrances on such assets nor has any asset been pledged as collateral.
- 24) The Great Lakes Water Authority has complied with all aspects of contractual agreements that would have a material effect on the financial statement in the event of noncompliance.
- 25) The financial statements properly classify all funds and activities.
- 26) Components of net position (net investment in capital assets; restricted; and unrestricted) are properly classified and, if applicable, approved.
- 27) The Great Lakes Water Authority has no derivative financial instruments such as contracts that could be assigned to someone else or net settled, interest rate swaps, collars or caps.
- 28) Provisions for uncollectible receivables, if any, have been properly identified and recorded.
- 29) Interfund, internal, and intra-entity activity and balances have been appropriately classified and reported.
- 30) Deposits and investments are properly classified, valued, and disclosed (including risk disclosures, collateralization agreements, valuation methods, and key inputs, as applicable).
- 31) Provision, when material, has been made to reduce excess or obsolete inventories to their estimated net realizable value.
- 32) Capital assets, including infrastructure and intangible assets, are properly capitalized, reported, and, if applicable, depreciated/amortized. Any known impairments have been recorded and disclosed.
- 33) Tax-exempt bonds issued have retained their tax-exempt status.
- 34) We have appropriately disclosed the Great Lakes Water Authority's policy regarding whether to first apply restricted or unrestricted resources when an expense is incurred for purposes for which both restricted and unrestricted net position are available and have determined that changes to net position were properly recognized under the policy.
- 35) We acknowledge our responsibility for the required supplementary information (RSI). The RSI is measured and presented within prescribed guidelines and the methods of measurement and presentation have not changed from those used in the prior period. We have disclosed to you any significant assumptions and interpretations underlying the measurement and presentation of the RSI.
- 36) With respect to the supplementary information, (SI):
 - a) We acknowledge our responsibility for presenting the SI in accordance with accounting principles generally accepted in the United States of America, and we believe the SI, including its form and content, is fairly presented in accordance with accounting principles generally accepted in the United States of America. The methods of measurement and presentation of the SI have not changed from those used in the prior period, and we have disclosed to you any significant assumptions or interpretations underlying the measurement and presentation of the supplementary information.



- b) If the SI is not presented with the audited financial statements, we will make the audited financial statements readily available to the intended users of the supplementary information no later than the date we issue the supplementary information and the auditor's report thereon.
- 37) We are responsible for the fair presentation of the Authority's net pension liability based upon calculations by the City of Detroit General Employees' Retirement System (GRS) and related amounts. We appropriately allocated the net pension liability based on the assumptions in the lease agreements, pension agreement and the allocation letter signed by the GLWA Chief Executive Officer and the Detroit Water & Sewerage Department (DWSD) Director on January 24, 2017. We have properly disclosed our special funding situation under GASB 68, *Accounting and Financial Reporting for Pension Plans*. We have reviewed the information provided by GRS for inclusion in the Authority's financial statements.
- 38) We have evaluated and considered all debt reported as defeased in substance and believe all material amounts held in trust that are not expressly prohibited from substitution in monetary assets that are not essentially risk-free are properly disclosed.
- 39) We have implemented GASB Statement No. 84, *Fiduciary Activities*, and believe that all activities that potentially meet the criteria for presentation as fiduciary activities have been identified and presented. In addition, we believe that all required disclosures and other accounting considerations have been identified and properly classified in the financial statements in compliance with the Standard. There were no changes to reporting as a result of this implementation
- 40) We have implemented GASB Statement No. 87, *Leases*, and believe that all required disclosures and accounting considerations have been identified and properly classified in the financial statements in compliance with the Standard.
- 41) We have implemented GASB Statement No. 90, *Majority Equity Interests*, and believe that all potential agreements have been identified and properly disclosed in the financial statements in compliance with the Standard. There were no changes to reporting as a result of this implementation.
- 42) We are responsible for the estimation methods and assumptions used in measuring assets and liabilities reported or disclosed at fair value, including information obtained from brokers, pricing services or third parties. Our valuation methodologies have been consistently applied from period to period. The fair value measurements reported or disclosed represent our best estimate of fair value as the measurement date in accordance with the requirements of GASB 72 *Fair Value Measurement*. In addition, our disclosures related to fair value measurements are consistent with the objectives outlined in GASB 72. We have evaluated the fair value information provided to us by brokers, pricing services or other parties that has been used in the financial statements and believe this information to be reliable and consistent with the requirements.
- 43) We have evaluated the existing outstanding debt for potential arbitrage liability. Any potential liability has been properly recorded.



- 44) We have evaluated existing contracts and agreements and are responsible for the accounting and financial reporting of any related capital or intangible assets, liabilities, receivables or deferred items in compliance with generally accepted accounting principles.
- 45) We are responsible for compliance with the funding requirements and the flow of funds as outlined in the Master Bond Ordinance.
- 46) With respect to federal award programs:
 - a) We are responsible for understanding and complying with and have complied with the requirements of the Single Audit Act Amendments of 1996, *OMB's Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance), including requirements relating to preparation of the schedule of expenditures of federal awards (SEFA).
 - b) We acknowledge our responsibility for presenting the SEFA in accordance with the requirements of the Uniform Guidance and we believe the SEFA, including its form and content, is fairly presented in accordance with the Uniform Guidance. The methods of measurement and presentation of the SEFA have not changed from those used in the prior period and we have disclosed to you any significant assumptions and interpretations underlying the measurement and presentation of the SEFA.
 - c) If the SEFA is not presented with the audited financial statements, we will make the audited financial statements readily available to the intended users of the SEFA no later than the date we issue the SEFA and the auditors' report thereon.
 - d) We have identified and disclosed to you all of our government programs and related activities subject to the Uniform Guidance and included in the SEFA, expenditures made during the audit period for all awards provided by federal agencies in the form of grants, federal cost reimbursement contracts, loans, loan guarantees, property (including donated surplus property), cooperative agreements, interest subsidies, insurance, food commodities, direct appropriations, and other direct assistance.
 - e) We are responsible for understanding and complying with, and have complied with the requirements of laws, regulations, and the provisions of contracts and grant agreements related to each of our federal programs and have identified and disclosed to you the requirements of laws, regulations, and the provisions of contracts and grant agreements that are considered to have a direct and material effect on each major federal program.
 - f) We are responsible for establishing and maintaining, and have established and maintained, effective internal control over compliance for federal programs that provide reasonable assurance that we are administering our federal awards in compliance with laws, regulations, and the provisions of contracts and grant agreements that could have a material effect on our federal programs. We believe the internal control system is adequate and is functioning as intended. Also, no changes have been made in the internal control over compliance or other factors to the date of this letter that might significantly affect internal control, including any corrective action taken with regard to control deficiencies reported in the schedule of findings and questioned costs.



- g) We have made available to you all contracts and grant agreements (including amendments, if any) and any other correspondence with federal agencies or pass-through entities relevant to the programs and related activities.
- h) We have received no requests from a federal agency to audit one or more specific programs as a major program.
- i) We have complied with the direct and material compliance requirements including when applicable, those set forth in the OMB Compliance Supplement relating to federal awards.
- j) We have disclosed any communications from grantors and pass-through entities disclosed to you results of our including communications received from the end of the period covered by the compliance audit to the date of the auditors' report.
- k) Amounts claimed or used for matching were determined in accordance with relevant guidelines in the Uniform Guidance.
- 1) We have disclosed to you our interpretation of compliance requirements that may have varying interpretations.
- m)We have made available to you all documentation related to the compliance with the direct and material compliance requirements, including information related to federal program financial reports and claims for advances and reimbursements.
- n) We have disclosed to you the nature of any subsequent events that provide additional evidence about conditions that existed at the end of the reporting period affecting noncompliance during the reporting period.
- o) We are not aware of any instances of noncompliance with direct and material compliance requirements that occurred subsequent to the period covered by the auditors' report.
- p) No changes have been made in internal control over compliance or other factors that might significantly affect internal control subsequent to the date as of which compliance was audited.
- q) Federal program financial reports and claims for advances and reimbursements are supported by the books and records from which the financial statements have been prepared.
- r) The copies of federal program financial reports provided you are true copies of the reports submitted, or electronically transmitted, to the respective federal agency or pass-through entity, as applicable.
- s) We have monitored subrecipients to determine that they have expended pass-through assistance in accordance with applicable laws and regulations and have met the requirements of the Uniform Guidance.



- t) We have taken appropriate action, including issuing management decisions, on a timely basis after receipt of subrecipients' auditors' reports that identified noncompliance with laws, regulations, or the provisions of contracts or grant agreements to ensure that subrecipients have taken the appropriate and timely corrective action on findings.
- u) We have considered the results of subrecipient audits and made any necessary adjustments to our books and records.
- v) We have charged costs to federal awards in accordance with applicable cost principles.
- w) We are responsible for and have accurately prepared the summary schedule of prior audit findings to include all findings required to be included by the Uniform Guidance and we have provided you with all information on the status of the follow-up on prior audit findings by federal awarding agencies and pass-through entities, including all management decisions.
- x) We are responsible for and have accurately prepared the auditee section of the Data Collection Form as required by the Uniform Guidance.

Sincerely,

Suzanne R. Coffey, PE, Interim Chief Executive Officer

Nicolette N. Bateson, CPA, Chief Financial Officer/ Treasurer





Appendix C: Two-way communication regarding your audit

1



As part of our audit of your financial statements, we are providing communications to you throughout the audit process. Auditing requirements provide for two-way communication and are important in assisting the auditor and you with more information relevant to the audit.

As this past audit is concluded, we use what we have learned to begin the planning process for next year's audit. It is important that you understand the following points about the scope and timing of our next audit:

- a. We address the significant risks of material misstatement, whether due to fraud or error, through our detailed audit procedures.
- b. We will obtain an understanding of the five components of internal control sufficient to assess the risk of material misstatement of the financial statements whether due to error or fraud, and to design the nature, timing and extent of further audit procedures. We will obtain a sufficient understanding by performing risk assessment procedures to evaluate the design of controls relevant to an audit of financial statements and to determine whether they have been implemented. We will use such knowledge to:
 - Identify types of potential misstatements.
 - Consider factors that affect the risks of material misstatement.
 - Design tests of controls, when applicable, and substantive procedures.
- c. We will not express an opinion on the effectiveness of internal control over financial reporting or compliance with laws, regulations and provisions of contracts or grant programs. For audits performed in accordance with *Government Auditing Standards*, our report will include a paragraph that states that the purpose of the report is solely to describe the scope of testing of internal control over financial reporting and compliance and the result of that testing and not to provide an opinion on the effectiveness of internal control over financial report is an integral part of an audit performed in accordance with Government Auditing Standards in considering internal control over financial reporting and compliance. The paragraph will also state that the report is not suitable for any other purpose.
- d. The concept of materiality recognizes that some matters, either individually or in the aggregate, are important for fair presentation of financial statements in conformity with generally accepted accounting principles while other matters are not important. In performing the audit, we are concerned with matters that, either individually or in the aggregate, could be material to the financial statements. Our responsibility is to plan and perform the audit to obtain reasonable assurance that material misstatements, whether caused by errors or fraud, are detected.

Our audit will be performed in accordance with auditing standards generally accepted in the United States of America and *Government Auditing Standards, OMB's Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance).

We will not express an opinion on the effectiveness of internal control over financial reporting or compliance with laws, regulations, and provisions of contracts or grant programs. For audits done in accordance with *Government Auditing Standards*, the Uniform Guidance, our report will include a paragraph that states that the purpose of the report is solely to describe (a) the scope of testing of internal control over financial reporting and compliance and the result of that testing and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance, (b) the scope of testing internal control over compliance for major programs and major program compliance and the result of that testing and to provide an opinion on compliance but not to provide an opinion on the effectiveness of internal control over compliance and, (c) that the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering internal control over financial reporting

and compliance and the Uniform Guidance, in considering internal control over compliance and major program compliance. The paragraph will also state that the report is not suitable for any other purpose.

We are very interested in your views regarding certain matters. Those matters are listed here:

- a. We typically will communicate with your top level of management unless you tell us otherwise.
- b. We understand that the governing board has the responsibility to oversee the strategic direction of your organization, as well as the overall accountability of the entity. Management has the responsibility for achieving the objectives of the entity.
- c. We need to know your views about your organization's objectives and strategies, and the related business risks that may result in material misstatements.
- d. We anticipate that the Authority will receive an unmodified opinion on its financial statements.
- e. Which matters do you consider warrant particular attention during the audit, and are there any areas where you request additional procedures to be undertaken?
- f. Have you had any significant communications with regulators or grantor agencies?
- g. Are there other matters that you believe are relevant to the audit of the financial statements?

Also, is there anything that we need to know about the attitudes, awareness and actions of the governing body concerning:

- a. The entity's internal control and its importance in the entity, including how those charged with governance oversee the effectiveness of internal control?
- b. The detection or the possibility of fraud?

We also need to know if you have taken actions in response to developments in financial reporting, laws, accounting standards, governance practices, or other related matters, or in response to previous communications with us.

With regard to the timing of our audit, here is some general information. If necessary, we may do preliminary financial audit work during the months of August or September. Our final financial fieldwork is scheduled during the fall to best coincide with your readiness and report deadlines. After fieldwork, we wrap up our financial audit procedures at our office and may issue drafts of our report for your review. Final copies of our report and other communications are issued after approval by your staff.

Keep in mind that while this communication may assist us with planning the scope and timing of the audit, it does not change the auditor's sole responsibility to determine the overall audit strategy and the audit plan, including the nature, timing and extent of procedures necessary to obtain sufficient appropriate audit evidence.

We realize that you may have questions on what this all means or wish to provide other feedback. We welcome the opportunity to hear from you.

Attachment 6

Draft Management Recommendations Letter

© bakertilly

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December ___, 2021

Great Lakes Water Authority 735 Randolph Street, 15th Floor Detroit, Michigan 48226

To the Great Lakes Water Authority Audit Committee:

We are presenting, for your consideration, our comments and management recommendations which were identified during our audit of the financial statements of the Great Lakes Water Authority (Authority) for the year ended June 30, 2021.

This letter, by its nature, focuses on improvements and does not comment on the many strong areas of the Authority's systems and procedures. The comments and suggestions are not intended to reflect in any way on the integrity or ability of the personnel of Authority's operations. Additionally, this letter is meant to provide management with information which may be useful when considering operating enhancements to your operation and are provided in the spirit of advisory assistance. The comments in this report are not required as part of our annual audit but are offered only as a process to assist your operations.

Payroll Controls

Annually, significant financial processes are reviewed in detail to identify existing controls in place at the Authority. Due to the significance of the transactions which are processed through the Authority's disbursement and payroll transaction cycles, we conduct a full control assessment through sampling. Our sample is a random selection of transactions which were made during the fiscal year. Baker Tilly selected a sample of payroll transactions to review for effective controls including proper authorization and approval of employee wages, proper review and approval of employee payroll either timecards or salary wages and review of payroll prior to release of checks or direct deposit file. Below is a summary of a control deficiency which was noted in our payroll sample.

Control Objective	Finding	Recommendation to Address Finding	Management's Response
All employee timecards should be approved	An employee sampled was paid for 8 hours of time without a supporting approved schedule.	Baker Tilly worked with GLWA management to evaluate the potential impact of and are in agreement the impact is not significant to the Authority's financial statements. We recommend management work with its software to develop an exception report for any time entered without an approved schedule. The exception report would be reviewed and approved by an appropriate individual.	The Authority will develop an exception report, in alignment with pay policy, and incorporate that into Organizational Development's standard review procedures. Exceptions will be followed up accordingly.

December __, 2021 DRAFT

Information Technology Overview

The focus for the 2021 Information Technology (IT) review was to continue developing our understanding of the general computer control (GCC) environment at Authority and perform detailed tests as part of our annual audit of the financial statements. This document is intended to summarize the results of our review and provide any additional guidance regarding the IT environment at Authority.

The GCC review utilized the IT Risk Assessment Standards framework to obtain a more detailed understanding of the Authority IT control environment. As part of the GCC review, the following areas related to the IT function were reviewed:

- > New system implementations and significant upgrades
- > Application changes
- > Database changes
- > Server operating system changes
- > Application access
- > Privileged access
- > Segregation of duties between administrative access and individuals operating financial systems
- > Authentication
- > User account management, new and modified access
- > User account terminations
- > User access reviews
- > Backups
- > Interfaces and automated processing

General Computer Control Findings

Below lists some of the specific GCC findings that did not warrant a management letter comment but should be considered by the Authority.

Control Objective	IT Finding	Recommendation to Address Finding	Management's Response
Disaster recover plan	Does not have a formal disaster recovery plan	We recommend the Authority to review the drafted disaster recovery plan and formally adopt a plan.	Significant progress was completed in Spring 2021 on the draft Disaster Recovery Plan related to Application Criticality Tiers using a third party disaster recovery specialist. GLWA is in the process of implementing a new Disaster Recovery as a Service (DRaaS) model which will inform further updates to the plan to be finalized in FY 23.

This report is intended solely for the information and use of management and others in the organization and is not intended to be, and should not be, used by anyone other than the specified parties.

We appreciate the courtesy and assistance extended to us by all your personnel during the audit. If you have any questions on our comments, or if we can offer our services in any other way during the year, please do not hesitate to contact us. Thank you for allowing us to serve you.

Sincerely,

BAKER TILLY US, LLP