



GLWA

Great Lakes Water Authority

Annual Comprehensive Financial Report

Fiscal Year Ended June 30, 2023

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

Prepared by
Great Lakes Water Authority
Financial Services Area
Detroit, Michigan

GREAT LAKES WATER AUTHORITY

Southeast Michigan

ANNUAL COMPREHENSIVE FINANCIAL REPORT

Including Independent Auditors' Report

Fiscal Year Ended June 30, 2023

Prepared By:

Great Lakes Water Authority Financial Services Area

GREAT LAKES WATER AUTHORITY

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INTRODUCTORY SECTION



TRANSMITTAL LETTER

December 13, 2023

Board of Directors of the Great Lakes Water Authority and Those That We Serve,

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, 2023.

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, 2023, with comparative amounts for June 30, 2022.

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

GLWA is one of the largest water and wastewater utilities in the United States serving solely as a wholesale treatment service provider. 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 disposal services contract with GLWA. Our member partners are actively engaged with GLWA and supported by a facilitated outreach program to ensure open, ongoing, and proactive relationships.

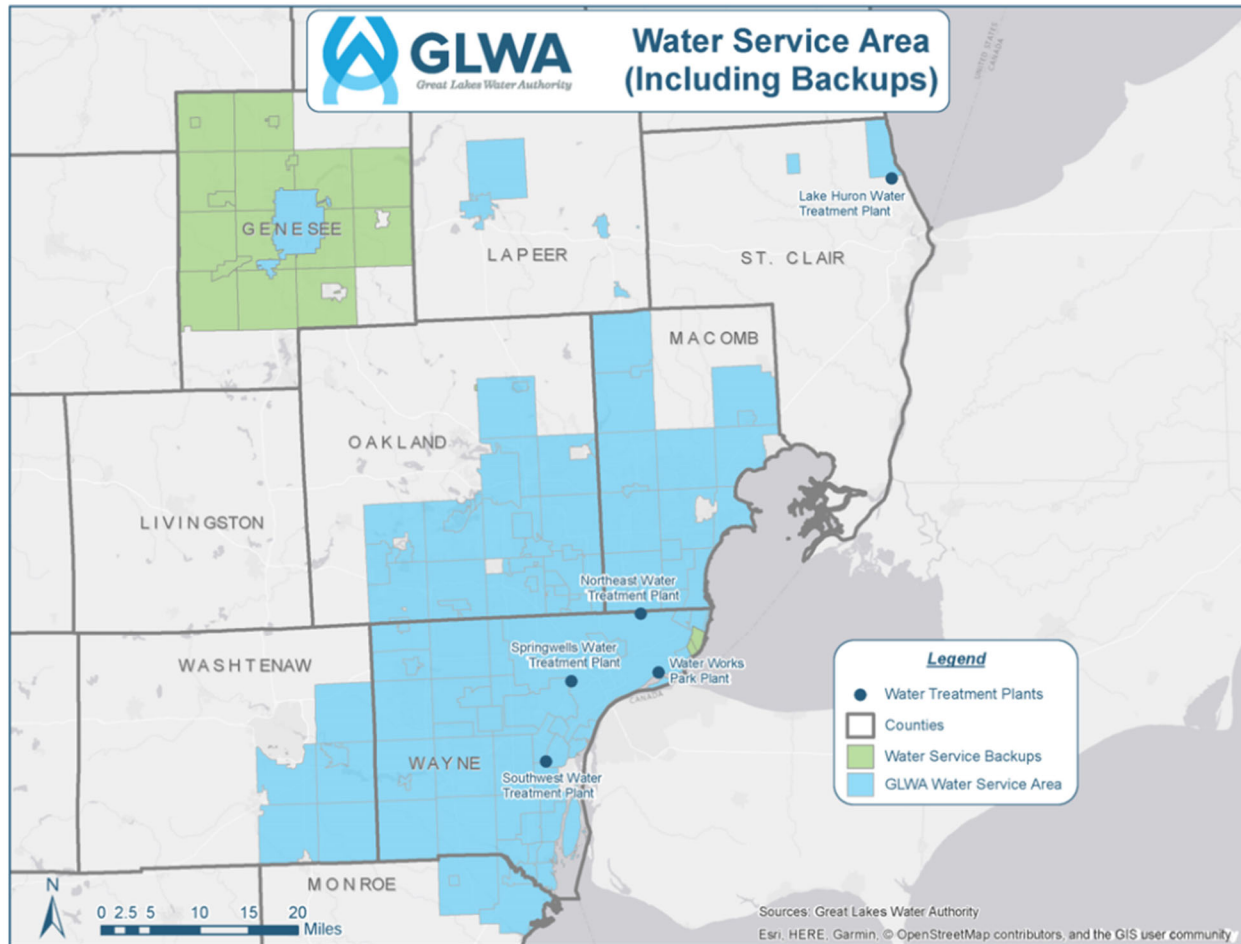
GLWA assumed operational control of the city of Detroit Water & Sewerage Department's (DWSD) regional operating assets on January 1, 2016, pursuant to the terms outlined in a companion set of documents commonly referred to as the lease agreements and water and sewer services agreements. DWSD continues to operate and maintain the local system that serves the geographic boundaries of the city of Detroit. 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.

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. Below is the water service area map.

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 following map details the water service area.



Regional Wastewater System

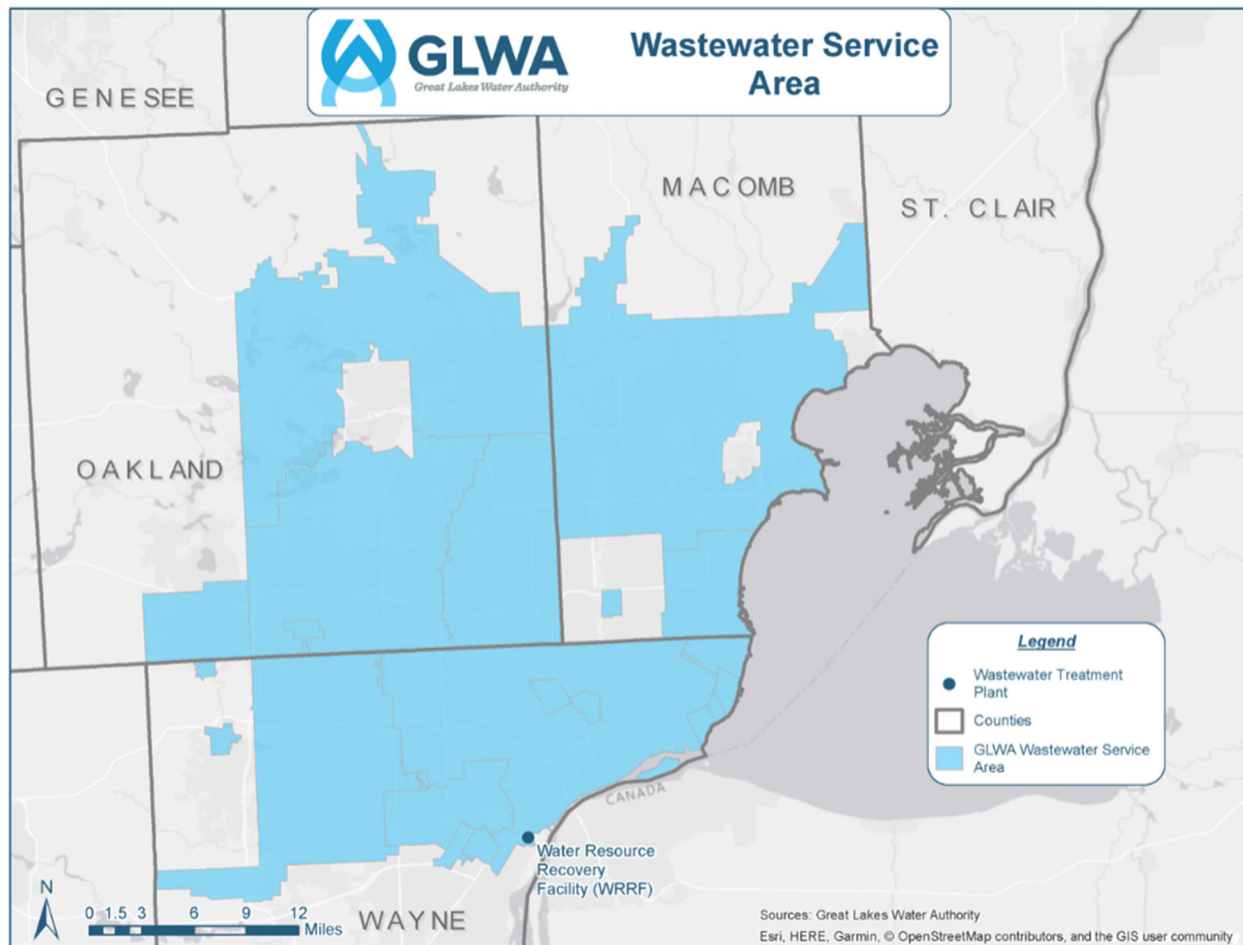
Our regional wastewater system is also one of the largest in the United States, both in terms of treatment capacity and population served. The wastewater system currently serves an area of 944 square miles with an estimated population of nearly 2.8 million or approximately 28 percent of Michigan’s population. 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 with a treatment capacity of 1,700 million gallons per day. The wastewater system has 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.

The following map details the wastewater service area.



One Water Concept

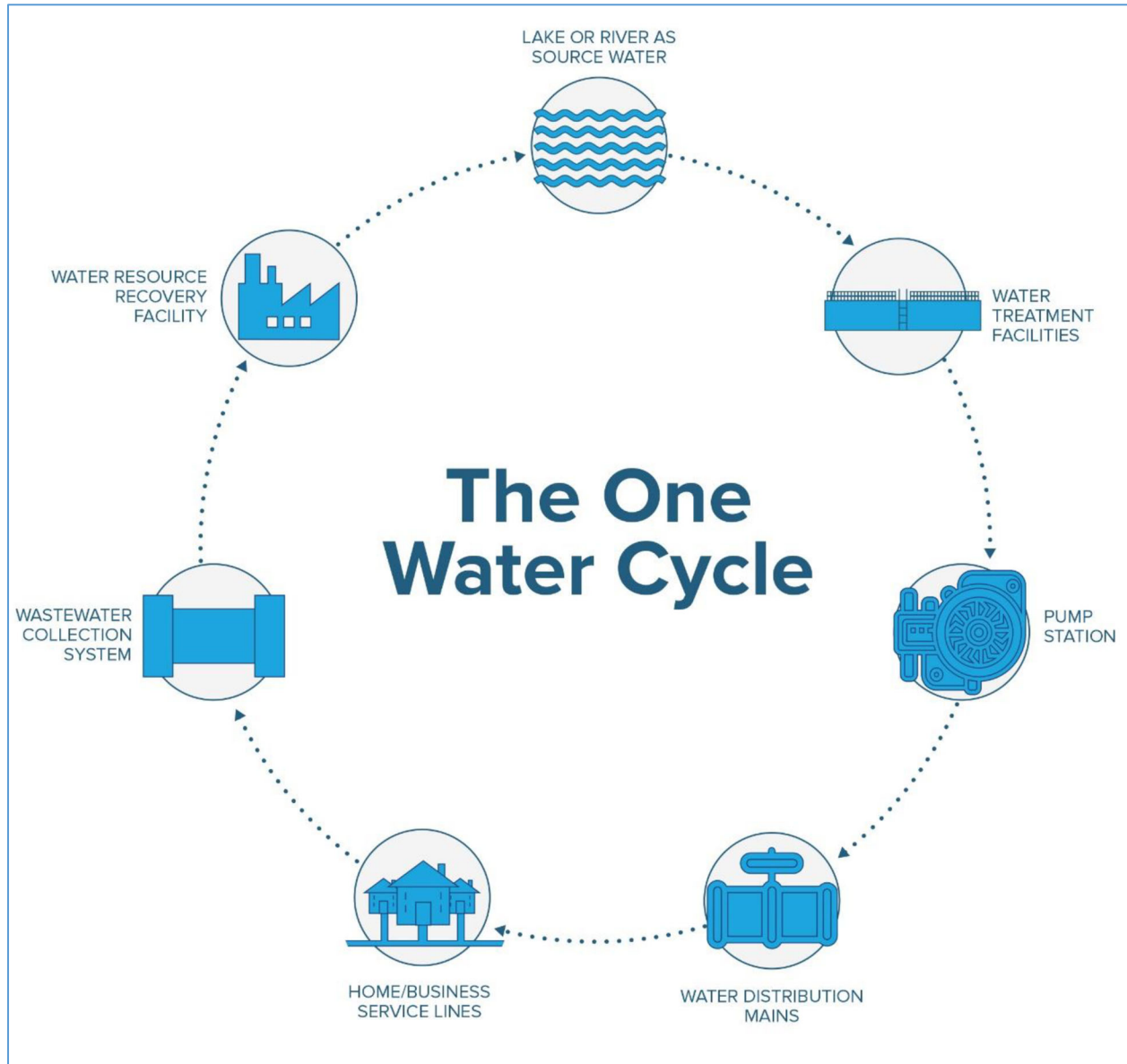
GLWA is all about **One Water** - the movement of water from the environment to its member partners, and back to the environment.

First, GLWA ensures its member partner communities receive the highest quality water by using treatment standards that are more strict than state or federal regulatory requirements.

Then, once water has been used, GLWA runs it through the treatment process again before returning it to the environment - often times cleaner than when the water was first received.

Working hand in hand with its member partners, GLWA provides unquestionable water quality and efficient and effective wastewater services.

Together, GLWA is **One Water** with its member partner communities.



Regional Service Area Economy

The GLWA service area is largely located in the Detroit Metropolitan Service Area (MSA) which is experiencing the lowest unemployment rate in over 10 years at 3.2 percent. The city of Detroit is experiencing significant growth driven by large scale redevelopment and major corporations increasing their presence or relocating. This redevelopment is also supporting greater diversity in employment opportunities for resident with manufacturing now representing 12 percent of the local

employment, down from 19 percent in 2000, while other areas such as professional, business, education and health services comprise over one-third of all employment. The population level remains stable. Per capita income has had a steady increase over the years.

Strength in the economy is observed through increasing and strong credit ratings among the city of Detroit and tri-county area that covers the majority of GLWA's member partner communities. The respective ratings from Moody's (M), Standard & Poor's (S), and Fitch (F) are listed below along with the state of Michigan who provides significant levels of low-cost state revolving fund loans to GLWA.

- Oakland County Aaa/AAA/Not Rated (M/S/F)
- Macomb County Aa1/AA+/Not Rated (M/S/F)
- Wayne County A1/A/A (M/S/F)
- City of Detroit Ba1/BB+/Not Rated (M/S/F)
- State of Michigan Aa1/AA/AA+ (M/S/F)

Water Residential Assistance Program

While the economic metrics are strong, there will always be households in need in the service area. For this reason, the founding legal structure for GLWA provided that 0.5 percent of the annual budgeted requirement be directed to funding the Water Residential Assistance Program ("WRAP"). For the year ended June 30, 2023, the funding level was \$4.2 million. This program provides payment assistance and support services to address home repairs to assist eligible low-income residential households in our member partner communities. This means that qualified households can receive payment assistance, as well as take steps to sustainably reduce their bills in the future. The WRAP program is delivered through a network of governmental and nonprofit service delivery partners who can provide a wholistic approach to supporting households in need with other services. In October 2022, the new WRAP Income Based Plan ("IBP") was launched to provide eligible households with payment assistance that limits the household cost for services to three percent. The IBP was the result of extensive research which GLWA believes to be a nationally leading program design.

Budget Process

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 ("CIP"), 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 the bottom line of each of the budgeted revenue requirements to align with the charge setting process. Components of the revenue requirements are referred to as appropriation categories. The budget shall not be increased or decreased by appropriation category without prior Board authorization. The Board is provided a detailed budget by line item which supports the totals in each appropriation category at the time of budget approval. The Chief Financial Officer may exercise discretion to modify the detail budget line items within each appropriation category.

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 Ordinances (“MBOs”). 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 reconciliation 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.

The 4% Promise

Affordability and sustainability were primary concerns in establishing the regional water authority. The mechanism to achieve that balance was the “4% Promise” as established in the foundational documents for GLWA. The 4% Promise requires that the annual revenue requirement does not increase by more than 4 percent in any one year for the first 10 years of the Authority’s existence. The revenue requirement includes operations and maintenance (O&M) expense, debt service, system lease payments, legacy pension, funding for WRAP, funding for the capital program via Improvement & Extension Fund contributions and any other expenditure or funding as required by the MBOs. With a strong commitment to affordability, GLWA has stayed well under that promise with an average annual revenue requirement adjustment of 2.2 percent for the water fund and 0.9 percent for the sewage disposal fund from FY 2018 through FY 2024.

Long-term Financial Planning

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. This goal was recently reached with the most recent rating agency affirmation and upgrades issued in October 2023. Since the operational effective date of the Authority, Moody’s Investor Services has increased the ratings 6 notches, and Standard & Poor’s has increased the ratings 3 notches for both systems. Fitch Ratings has increased the ratings 4 notches for the water system and 5 notches for the sewage disposal system. More details on the October 2023 credit ratings are described in the MD&A and in Note 20.

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 CIP. GLWA has delivered in reducing the annual revenue dollars that are dedicated to debt service with an effective debt refunding program.

There was one debt refunding during the fiscal year ended June 30, 2023, for the Sewage Disposal system. This transaction used a \$1.6 reduction in reserve requirements to reduce future budgeted (gross) cash flow by \$1.96 million which resulted in a net present value economic gain of approximately \$212,000. Since the fiscal year-end of June 2023, GLWA issued Water System and Sewage Disposal System refunding bonds in a tender purchase offer which closed on December 5, 2023. These transactions used a \$0.2 million reduction in reserve requirements to reduce future budgeted cash flow by \$45.9 million which resulted in a net present value economic gain of \$28.8 million. Since GLWA’s operational inception in 2016 through December 2023, refunding transactions have used reductions in debt reserve requirements of \$107.7 million to reduce future budgeted cash flow by \$766.1 million resulting in a net present value economic gain of \$469.7 million. These savings

have a material impact on GLWA’s ability to keep the annual revenue requirement adjustments and related charge adjustments at an amount well below the consumer price index.

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.

Major Initiatives

If there is one word that would describe the driver of GLWA’s major initiatives, it would be resiliency. Changing climate, aging infrastructure, constrained workforce, and rapid cost increases shape our very focused efforts to make sure that GLWA is able to anticipate, withstand, recover from, and adapt to changing and unforeseen conditions to ensure the delivery of water of unquestionable quality and superior environmental stewardship.

System and Operational Resiliency

GLWA is taking action to enhance system and operational resiliency. One example is the launch of Linear System Integrity Program (LSIP). This initiative uses innovative technology to support the regional system’s capacity to deliver drinking water and collect wastewater data. Using innovative technology such as electromagnetic and acoustical devices that can be inserted into drinking water transmission mains with minimal disruption and allow the utility to target its efforts to proactively intervene to prevent main breaks. This allows GLWA to better target specific assets that must be either repaired or replaced.

Recent sewer system specific actions completed include the standup of an event-specific resiliency team, strengthening reliability of external power supply source, and installation of power quality monitors at wet weather facilities. In process actions include modernization of Connors Creek pump station and other stormwater facilities and optimization including system cleaning and improvements to in-system storage devices.

GLWA’s Energy, Research, and Innovation Area is working to improve operations, optimize the value of our capital and operational investments, and identify and mitigate future risks, such as emerging contaminants, asset failure, and climate change. Many of their initiatives are in concert with universities, grantor agencies, and encompass community engagement.

Orchestrating the efforts outlined above include a new System Resiliency Group with an organization-wide focus. The team members assigned to this group have core institutional knowledge that is being captured in multiple ways including operating manuals and training videos.

As it relates to the capital improvement program (CIP), the majority of the GLWA FY 2024–2028 five-year CIP is driven by optimizing the system and maintaining reliability. There are no projects in the CIP for the water system that are driven by mandated permit requirements. A small percentage of projects for the wastewater system have permit and regulatory requirements. The water system calls for \$986.6 million of major capital expenditures over the next five fiscal years (2024-2028) and the wastewater (sewer) system calls for \$798.2 million of capital expenditures over the same 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.

Fortunately, GLWA has certain geographic and source water advantages to maintain resiliency despite climate change. GLWA is surrounded by the great lakes with three water intakes spaced between Lake Huron and Lake Erie. PFAS is non-detect in source water. Further, there are two pilot water plants that allow GLWA to test and assess changes in water treatment.

Human Resource Resiliency

We continue to develop strategies to help ensure that we retain highly skilled team members and attract top talent in a tight employment market. GLWA is filled with a very talented group of water professionals doing great things in and for the areas that we serve.

Our Professional Development Certification Program allows team members in 11 job classifications represented by a union through a Collective Bargaining Agreement and in the team leader classification to earn stipends for EGLE required certifications. The recently completed third year of the program resulted in 154 team members, nearly one-third of those eligible, earning certifications from EGLE. We have also updated job descriptions, launched a comprehensive compensation study, instituted formal compensation equity reviews for new and existing team members, expanded wellness programs, and provided incentives for referring new team members to GLWA. The offerings for the One Water Institute, a regional training academy launched in 2019, increased to meet the needs of GLWA team members and member partners' staff to expand technical knowledge capacity in the region. Recently, in July 2023, a Leadership Academy was launched that is designed to support Leadership Team Members in their efforts to facilitate high-performing Teams. This new training initiative is well underway with two of the three foundational courses already completed.

At a time when many employers are facing labor shortages and turnover due to retirement, GLWA is focused on continuing to expand workforce development and succession planning. Developed in partnership with Focus: HOPE and approved by the US Department of Labor, GLWA's apprenticeship program successfully demonstrates a "learn-while-you-earn" model with on-the-job training and education at no cost to the participants. In partnership with Focus: HOPE, and several educational providers, GLWA has launched five multiple-year apprenticeships. A successful outcome is for apprentices to remain with GLWA post-apprenticeship.

In 2022, GLWA launched the summer internship program to develop new talent for the future of the water sector from local universities. It is a pathway for GLWA to identify new, sustainable solutions to help address the need for a qualified, diverse and knowledgeable workforce to fill roles that are imperative to the Authority's operations. Interns receive hands-on training in various fields including engineering, environmental science, finance, water affordability, legal, and research. GLWA has had 22 summer interns to-date.

Significant progress has been made this year in succession planning with deputy chief positions being added in Water Operations, Wastewater Operations, Administrative and Compliance Services, and Financial Services.

Financial Resiliency

In addition to the commitment to the five-year and ten-year financial plans, GLWA formed an Economic Outlook Task Force ("EOTF") to analyze current trends, forecast future price increases, and offer mitigation strategies. The EOTF's Phase 1 report dated October 24, 2022 provided both short-

term and long-term cost pressure mitigation strategies. It addressed forecasting strategies, capital project portfolio management, and other risk and cost mitigation actions such as modifying vendor contract terms. A key outcome of the EOTF's Phase I report was development a set of planning scenarios for a baseline, optimistic, and pessimistic set of assumptions. Scenario planning provides an inherent commitment to resiliency because the organization is routinely considering different outcomes based on changing circumstances. We continue to monitor this economic planning framework quarterly that is used in preparing the ten-year financial plan and the CIP. The quarterly updates are provided to the GLWA Audit Committee. A full update was presented to the Board of Directors in September 2023.

GLWA is fortunate in that it routinely receives multiple competitive responses on procurement solicitations. Vendor engagement is a top priority. One way that occurs is through vendor outreach events. The most recent in-person event was hosted in September 2023 with over 200 vendors in attendance.

Another vendor focused initiative is the Business Inclusion and Diversity (BID) program. This initiative was approved on November 25, 2020, when 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. As of October 2023, GLWA has awarded 37% of eligible contracts (\$346.8 million) to disadvantaged, minority-owned, women-owned, and small businesses and received 288 diversity plans.

GLWA is embarking on an organization-wide initiative to develop an Environmental, Social and Governance (ESG) framework. Many aspects of GLWA inherently support the tenants of ESG, it is of benefit for us to implement a process for informing, documenting, measuring, and reporting on the ways in which we approach these aspects of our work. While the framework has significance across the organization, the ESG Framework report, which will be published in early calendar year 2024, is expected to provide increased demand for GLWA bonds which may lower interest rates on debt issuances in the future as well as strengthening credit ratings.

Member Partner Relations

The One Water Partnership Agreement between GLWA and its member partners outlines the mutual commitments to working together for the greater good of the region, detailing the responsibilities of all parties and a commitment to a multi-jurisdictional, multi-agency approach to infrastructure renewal and investment. GLWA's collaborative relationship with its customers is foundational to its operations wherein GLWA works with its customers as member partners. In December 2022, the most recent Member Partner Outreach Scorecard was presented to the Board which provided an overall satisfaction survey at 90% with communication, transparency, and responsiveness as key strengths. Not surprisingly, shared concern of capital project cost increases was noted in the survey results.

FY 2023 Financial Results

Most important to our member partners are our budget results, as the member partner charges are set based upon our revenue requirements that must be fulfilled. The Schedule of Revenue Requirements Budget to Actual, in the Supplementary Information, provides an overall view of the financial results for FY 2023. In preparation of the budget, GLWA adheres to the following Financial Plan Objectives that are discussed in detail in our budget document:

1. The 4% Promise - The lease agreements that established the regional authority demonstrated a commitment to affordability by codifying what is commonly referred to as the 4% Promise. This caveat established that the annual revenue requirement budget increases are limited to 4 percent for the first 10 years of operations beginning with FY 2016;
2. Revenue Stability for the System – This is achieved by utilizing a charge model to provide revenue stability despite changes in climate conditions that vary from year to year which also includes measures to foster water conservation;
3. Managing Charge Stability for Our Member Partners – The goal is to adjust charges on a modest incremental basis systemwide to prevent unpredictable cost increases for our Member Partners;
4. Retail System Revenue and Collections – Under the terms of the leases, Master Bond Ordinance (“MBO”), and the services agreement with DWSD, GLWA distributes receipts to the revenue requirements following a flow of funds that may result in a cashflow loan to DWSD. The goal is that the retail system collections exceed the financial commitments under the MBO;
5. WRAP – This program is required to be funded at 0.5 percent of revenue;
6. Closed Loop Lease Payment – The regional system lease payments stay within the local, retail water and sewage disposal systems for the benefit of the DWSD;
7. Closed Legacy Benefit Plan Costs – GLWA’s share of the required DWSD commitment as part of the City of Detroit’s Chapter 9 bankruptcy Plan of Adjustment is funded consistent with the terms of the agreement.

The bottom-line revenue requirement budget result is that Water Operations ended the year with a \$0.6 million (0.2 percent) positive budget variance after meeting all of the revenue requirements. The Sewage Disposal Operations ended the year with a negative budget variance of \$0.9 million (-0.2 percent) after meeting all of the revenue requirements.

A further discussion of FY 2023 results is presented in the MD&A. The MD&A provides further analysis of the water and sewage disposal systems individually in addition to GLWA overall.

Solid Foundation for Sustainability

GLWA is committed to ensuring the long-term sustainability of the regional water supply 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 regional water supply 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 2023 was 100.1 percent of the amended budget. The regional sewage disposal system charge revenue methodology is designed to recover 100 percent with a fixed monthly billing based on each member partner's share of the annual forecasted revenue requirement. The sewage disposal charges updated the core methodology to the SHARES calculation effective with the FY 2022 service charges, which 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.

Strong Bondholder Protections - All payments to GLWA and DWSD for services provided are deposited to Bond Trustee Accounts and are disbursed in accordance the 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.

Legacy Pension Decrease - The City of Detroit Chapter 9 Bankruptcy Plan of Adjustment required DWSD to fund its portion of the City's General Retirement System (GRS) Component II pension plan, which was frozen as of June 30, 2014, over a nine-year period ending June 30, 2023. Upon the operational effective date of the Authority, GLWA and DWSD agreed to split that annual contribution based upon a historical staffing analysis with 70.3 percent allocable to GLWA and 29.7 percent to DWSD. With the ending of the initial nine-year period on June 30, 2023, the GRS Actuarial Annual Actuarial Valuation of Component II for June 30, 2022, shows the projected UAAL contributions for DWSD to be \$0 beginning in FY 2024 (there is a small contribution requirement for administrative expenses). The reduction of this pension liability means that any payments to the pension system for the foreseeable future are limited to annual administrative expenses of \$2.5 million in total.

Awards

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, 2023. This was the Authority's fifth 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 annual comprehensive financial report for the fiscal year ended June 30, 2022, for the fourth 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

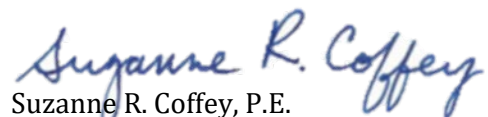
governmental accounting and financial reporting, and its attainment represents a significant accomplishment by a government and its management.

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.

Collaboration is at the Core of a Successful Regional Water Authority

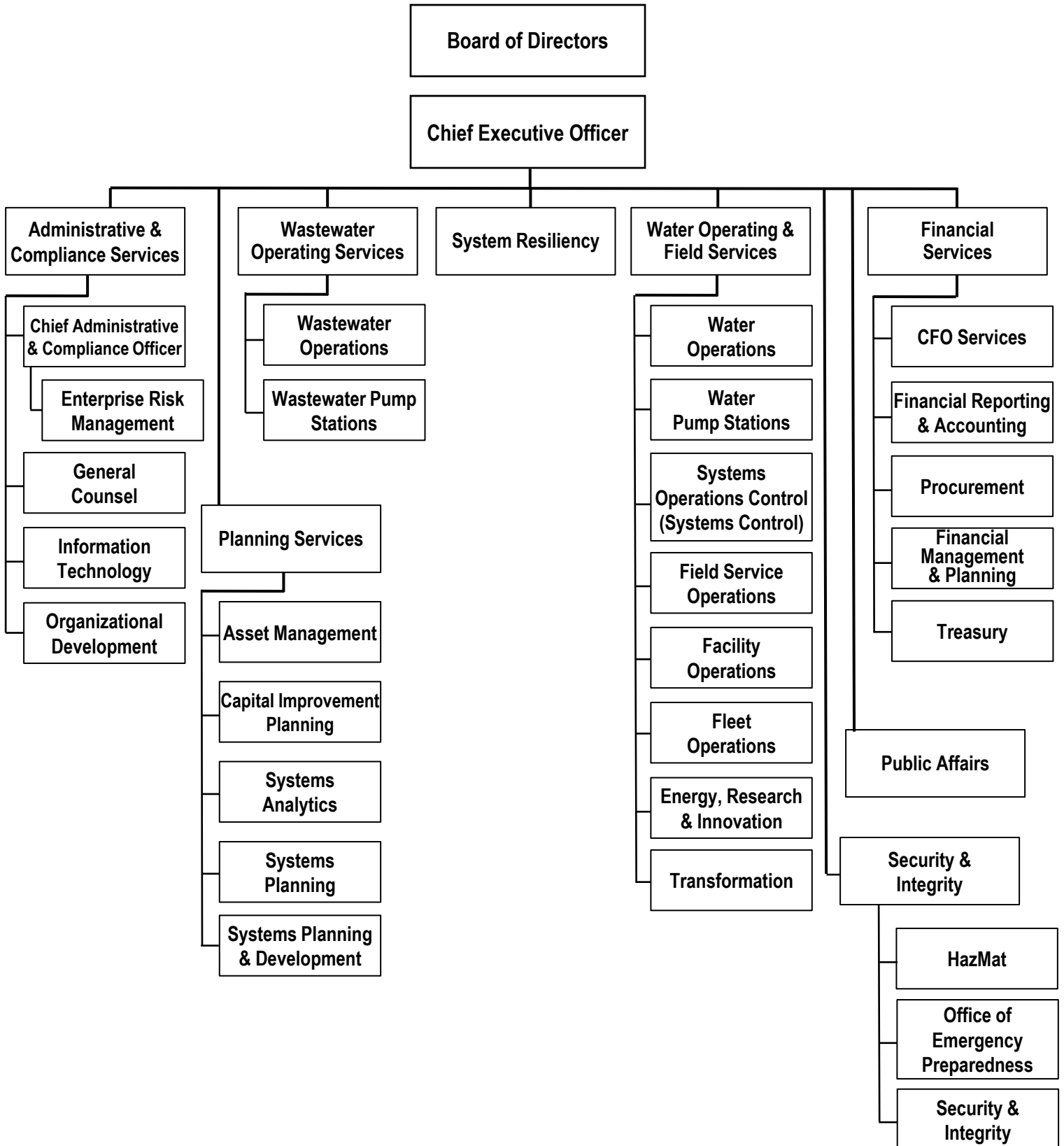
When we say “our” system, it is “our” system that we mutually support and foster in collaboration with our member partners, team members, vendor community, Board of Directors, other stakeholders, and the public at-large. Now, more than ever, thank you for your continued engagement.


Suzanne R. Coffey, P.E.
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, 2023**

Freman Hendrix GLWA Board Chairman; Representative for the City of Detroit
Brian Baker GLWA Board Vice-Chair; Representative for Macomb County
Mark Miller GLWA Board Secretary, Representative for the State of Michigan
Gary A. Brown.....GLWA Board Representative for the City of Detroit
Jaye QuadrozziGLWA Board Representative for Oakland County
John J. Zech.....GLWA Board Representative for Wayne County

**Great Lakes Water Authority Executive Leadership Team
as of June 30, 2023**

Suzanne R. Coffey, P.E. 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 Operating Services
Navid Mehram, P.E. Chief Operating Officer – Wastewater Operating Services
Jody Caldwell, P.E. Chief Planning Officer
Jeffrey E. Small Chief Information Officer
W. Barnett Jones..... Chief Security & Integrity Officer
Randal M. Brown * General Counsel
Michelle A. Zdrodowski Chief Public Affairs Officer
Jordie Kramer..... Chief Organizational Development Officer

* Effective October 9, 2023, William Wolfson added Interim General Counsel to his responsibility due to the departure of Randal M. Brown. He will retain that responsibility until the General Counsel position is filled.

Our Mission

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

Our Vision

Through regional collaboration, GLWA strives to be the provider of choice, dedicated to efficiently delivering the nation's best water and sewer services in partnership with our member partners.



Government Finance Officers Association

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**Great Lakes Water Authority
Michigan**

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2022

Christopher P. Morill

Executive Director/CEO

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FINANCIAL SECTION

Independent Auditors' Report

To the Board of Directors of
Great Lakes Water Authority

Report on the Audit of the Financial Statements

Opinions

We have audited the accompanying 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, 2023, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

In our opinion, the accompanying 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 Authority as of June 30, 2023 and the respective changes in the financial position and, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (*Government Auditing Standards*). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Authority and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America; and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Authority's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 Authority's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Authority's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

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

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the 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

Management is responsible for the other information, the introductory section and statistical section, of the annual comprehensive financial report (annual report). The other information comprises the other information included in the annual report but does not include the basic financial statements and our auditors' report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Report on Summarized Comparative Information

We have previously audited the Authority's 2022 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 14, 2022. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2022, 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 13, 2023 on our consideration of the 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 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 Authority's internal control over financial reporting and compliance.



Madison, Wisconsin
December 13, 2023

MANAGEMENT'S DISCUSSION AND ANALYSIS

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

June 30, 2023

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, 2023. 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 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, 2023 to the fiscal year ended June 30, 2022 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, 2022 to the fiscal year ended June 30, 2021.

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 on a 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.

BC Note Obligation: The BC Note 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.

GREAT LAKES WATER AUTHORITY

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.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

A combining statement for the water fund and for the sewage disposal fund are provided in the supplementary financial information. Each of these major funds consists of three funds 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 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. The tables presented in the MD&A may not foot as they are displayed in thousands. The totals are based on the underlying data in the table.

Net Position (Deficit)

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.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

	Net Position (\$000)						
	Fiscal Year			Change 2023 vs 2022		Change 2022 vs 2021	
	2023	2022	2021	Amount	Percent	Amount	Percent
Assets							
Current assets	\$ 735,531	\$ 933,790	\$ 1,053,770	\$ (198,259)	-21.2%	\$ (119,980)	-11.4%
Restricted assets	648,202	45,956	43,929	602,246	1310.5%	2,026	4.6%
Capital assets	4,408,642	4,415,024	4,458,165	(6,382)	-0.1%	(43,141)	-1.0%
Other noncurrent assets	939,193	961,062	980,169	(21,869)	-2.3%	(19,107)	-1.9%
Total assets	6,731,569	6,355,832	6,536,034	375,737	5.9%	(180,202)	-2.8%
Deferred outflows of resources							
	181,672	182,497	225,074	(825)	-0.5%	(42,577)	-18.9%
Liabilities							
Current liabilities	457,377	366,461	338,292	90,916	24.8%	28,169	8.3%
Long-term debt	5,633,439	5,295,565	5,469,009	337,873	6.4%	(173,444)	-3.2%
Net pension liability	63,175	65,221	144,305	(2,047)	-3.1%	(79,084)	-54.8%
Other liabilities	909,506	910,224	923,254	(718)	-0.1%	(13,030)	-1.4%
Total liabilities	7,063,496	6,637,471	6,874,860	426,025	6.4%	(237,388)	-3.5%
Deferred inflows of resources							
	81,327	120,157	96,380	(38,830)	-32.3%	23,776	24.7%
Net position (deficit)							
Net investment in capital assets	(336,553)	(194,715)	(302,012)	(141,838)	72.8%	107,297	-35.5%
Restricted for construction	2,181	-	-	2,181	100.0%	-	0.0%
Restricted for debt service	147,436	123,415	114,545	24,022	19.5%	8,870	7.7%
Restricted for payment assistance program	4,653	12,318	11,043	(7,666)	-62.2%	1,275	11.5%
Unrestricted	(49,299)	(160,317)	(33,707)	111,018	-69.2%	(126,609)	375.6%
Total net position (deficit)	\$ (231,582)	\$ (219,299)	\$ (210,132)	\$ (12,283)	5.6%	\$ (9,167)	4.4%

In total, GLWA ended June 30, 2023 with a \$231.6 million net deficit. This represents the combined net deficit for the water fund of \$123.9 million and \$107.7 million for the sewage disposal fund. The net deficit as of June 30, 2022 was \$219.3 million. This is the combined net deficit of \$109.3 million for the water fund and \$110 million for the sewage disposal fund. The decrease in net position for the year ended June 30, 2023 of \$12.3 million was due to a \$2.3 million improvement in the sewer fund offset by a \$14.6 million decrease in the water fund. These amounts are reported in the Statement of Revenues, Expenses, and Changes in Net Position.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

There are three general components of a net position which could be a deficit: 1) net investment in capital assets; 2) restricted (non-capital assets whose use is restricted less the related liabilities); and 3) unrestricted (any portion of net position not already classified in the first two categories listed). The ending net position (deficit) is the prior year's ending balance plus or minus activity for the year.

Net investment in capital assets is computed as the capital assets acquired (net of depreciation and amortization) less the debt incurred to acquire those assets. The balance for 2023 was a deficit balance of \$336.6 million and the balance for 2022 was a deficit of \$194.7 million. A unique historical driver of this deficit is the accounting requirement for the start-up of GLWA pursuant to GASB Statement No. 69, Government Combinations and Disposals of Government Operations. GASB 69 requires that government acquisitions measurement of assets acquired and liabilities assumed be based upon their acquisition values (market-based). The acquisition values were determined by an appraiser for the capital assets and a financial advisor for the debt. The GASB 69 adjustment related to the debt was not significant. The GASB 69 adjustment related to the capital assets resulted in a significant increase in the book value of capital assets of \$1.6 million which, in turn, has increased annual depreciation expense over the remaining life of the asset. Over time, the valuation impact will diminish. The decrease of \$141.8 million in 2023 was mainly a result of depreciation expense being higher than the debt related reductions (payments and amortization of deferred gains and losses on refundings). The improvement for 2022 of \$107.3 million was due to the use of I&E funds versus debt to pay for capital asset additions. Depreciation expense was also higher than debt related reduction for 2022, but this was offset by the amount of I&E funds used to fund the capital asset additions.

Restricted Net Position for construction relates to a capital contribution received during the year that is to be used for a future capital project. The total amount restricted at June 30, 2023 was \$2.2 million.

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 June 20, 2023 was \$147.4 million and the amount at June 30, 2022 was \$123.4 million. Changes in this category can be related to a change in the debt reserve requirement or in the amount of funds being set aside. The MBO requires funds to be set aside monthly for debt service so that the funds are available when the debt service payment is due. The increase for 2023 and 2022 is mainly due to an increase in the debt set aside payments based on future debt requirements. The debt reserve cash balances decreased by \$5 million in 2023. This was a result of reserve releases of \$12 million with the September 2022 bond transaction that was offset with investment earnings of \$7 million during the fiscal year. There was not much change in the debt reserve balances in 2022.

Restricted Net Position for payment assistance program represents WRAP funds that have not been spent by the service delivery partners who disburse the funds to those who meet the qualifications for assistance. Service delivery partners submit monthly statements of expenditures outlining commitments made to clients qualifying for assistance. Funds are disbursed upon review of the monthly statements of expenditure and funds available by service area. The total amount restricted at year end was \$4.7 million. This is a decrease of \$7.6 million from the prior year total of \$12.3 million. This decrease is a result of modifications to the WRAP program design and was expected as a result of increased outreach and participation.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

Unrestricted net position is generally defined as the net result of the other components of total net position. The unrestricted net position is a deficit of \$49.3 million as of June 30, 2023. In 2023, the unrestricted account activities contributed to an increase in unrestricted net position by \$111 million. The decrease in 2022 was a result of using unrestricted cash and investments in the improvement and extension funds to pay for capital expenditures. The improvement and extension funds hold the revenues that are budgeted for in the revenue requirements to reduce debt financing for capital expenditures. This is part of the Authority's strategic goals to rebalance the mix of debt financing to reduce the cost of capital to become a solid AA category credit rating.

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.

	Changes in Net Position (\$'000)						
	Fiscal Year			Change 2023 vs 2022		Change 2022 vs 2021	
	2023	2022	2021	Amount	Percent	Amount	Percent
Operating revenues	\$ 845,686	\$ 816,345	\$ 815,369	\$ 29,341	3.6%	\$ 976	0.1%
Operating expenses	660,786	609,951	579,460	50,835	8.3%	30,491	5.3%
Operating income	184,900	206,394	235,909	(21,494)	-10.4%	(29,514)	-12.5%
Nonoperating revenues (expenses)	(199,359)	(222,552)	(230,424)	(23,193)	-10.4%	(7,871)	-3.4%
Income (loss) before capital contributions	(14,459)	(16,158)	5,485	1,699	-10.5%	(21,643)	394.6%
Capital contributions	2,176	6,991	5,960	(4,815)	-68.9%	1,031	-17.3%
Change in net position	(12,283)	(9,167)	11,445	(3,116)	34.0%	(20,612)	180.1%
Net position (deficit), beginning of year	(219,299)	(210,132)	(221,578)	(9,167)	-4.4%	11,445	5.2%
Net position (deficit), end of year	\$ (231,582)	\$ (219,299)	\$ (210,132)	\$ (12,283)	-5.6%	\$ (9,167)	-4.4%

The change in net position is a loss of \$12.3 million for 2023 which is \$3.1 million more when compared to the loss in 2022. This is mostly attributed to an increase in operating expenses of \$50.8 million offset by an increase in revenue of \$29.3 million and a decrease in nonoperating expense of \$23.2 million. There was also a decrease in capital contributions of \$4.8 million during the year. The water fund had increased operating expense of \$20.6 million and the sewage disposal fund had increased operating expenses of \$30.2 million. The nonoperating expenses decrease is a result of an increase in investment earnings of \$43 million and a decrease in the legacy pension expense of \$34.7 million, which were offset by a decrease in interest income on obligations receivable of \$1.2 million, an increase in interest expense of \$15.1 and an increase in other nonoperating expenses of \$38.2 million (which includes a discontinued capital projects expense of \$20.9 million).

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

Water Fund

Water Fund Changes in Net Position (\$000)								
Fiscal Year				Change 2023 vs 2022		Change 2022 vs 2021		
2023	Percentage of Operating Revenue	2022	2021	Amount	Percent	Amount	Percent	
Wholesale customer charges	\$ 340,594	93.6%	\$ 323,026	\$ 322,424	\$ 17,568	5.4%	\$ 602	0.2%
Local system charges	22,834	6.3%	21,697	21,926	1,137	5.2%	(228)	-1.0%
Other revenues	351	0.1%	234	266	117	49.7%	(31)	-11.8%
Total operating revenues	363,779	100.0%	344,958	344,615	18,821	5.5%	343	0.1%
Operating expenses	285,219	78.4%	264,579	250,476	20,641	7.8%	14,102	5.6%
Operating Income	78,560	21.6%	80,379	94,139	(1,820)	-2.3%	(13,759)	-14.6%
Nonoperating revenues (expenses)	(93,154)	-25.6%	(92,380)	(94,995)	(774)	-0.8%	2,615	2.8%
Change in net position	(14,594)	-4.0%	(12,000)	(856)	(2,594)	-21.6%	(11,144)	-1301.9%
Net position (deficit), beginning of year	(109,266)		(97,266)	(96,410)	(12,000)		(856)	
Net position (deficit), end of year	<u>\$ (123,860)</u>		<u>\$ (109,266)</u>	<u>\$ (97,266)</u>	<u>\$ (14,594)</u>	-13.4%	<u>\$ (12,000)</u>	-12.3%

Operating revenues are primarily from wholesale water charges of \$341 million (93.6 percent of Water Fund revenues). The 2023 wholesale customer charges were budgeted at \$330 million based on the service charges as amended by the Board in June 2022. The increase in charges over budget is attributed to an increase in volume from that which the budget was based on. The 2022 wholesale customer charges were budgeted at \$321 million in the adopted budget which included a 1.9 percent increase in charges offset by a decrease in expected usage.

The revenue from the local system charges of \$22.8 million account for 6.3 percent of the total operating revenue. The increase in 2023 and decrease in 2022 was expected based on the adopted budget and the calculation of charges. 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.

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 2023 revenue billed was 100.1 percent of the amended budget meeting the goal of revenue stability and was net of the Karegnondi Water Authority (KWA) credit. Fiscal year 2022 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 \$78.6 million or 21.6 percent of operating revenue.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

The following table details the Water Fund operating expenses.

Water Fund Operating Expenses (\$000)								
Fiscal Year				Change 2023 vs 2022		Change 2022 vs 2021		
2023	Percentage of Operating Expense	2022	2021	Amount	Percent	Amount	Percent	
Personnel	\$ 48,855	17.1%	\$ 44,893	\$ 43,889	\$ 3,963	8.8%	\$ 1,003	2.3%
Contractual services	52,817	18.5%	50,684	40,411	2,133	4.2%	10,273	25.4%
Utilities	33,437	11.7%	28,725	28,828	4,711	16.4%	(103)	-0.4%
Chemicals	12,690	4.4%	7,789	6,028	4,901	62.9%	1,761	29.2%
Supplies and other	11,926	4.2%	9,157	9,159	2,769	30.2%	(2)	0.0%
Capital program allocation	(1,172)	-0.4%	(1,618)	(2,123)	446	27.6%	505	23.8%
Intergovernmental reimbursements	(3,386)	-1.2%	(1,814)	(2,555)	(1,572)	-86.7%	741	29.0%
Total operating expenses before depreciation and amortization	155,167	54.4%	137,816	123,638	17,351	12.6%	14,178	11.5%
Depreciation and amortization	130,052	45.6%	126,763	126,838	3,290	2.6%	(76)	-0.1%
Total Operating Expenses	<u>\$ 285,219</u>	100.0%	<u>\$ 264,579</u>	<u>\$ 250,476</u>	<u>\$ 20,641</u>	7.8%	<u>\$ 14,102</u>	5.6%

Operating expenses of \$285.2 million represent 78.4 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 \$130.1 million or 45.6 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 mostly due to the change in personnel allocations from both Centralized and Administrative charges. See the Centralized Services and Administrative Services section, which is after the Sewage Disposal Fund discussions, for a discussion of these variances.

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 increase in contractual services of \$2.1 million in 2023 is a result of variances throughout various cost centers. The major variances are detailed below:

- Increase of \$1.9 million in the utilization of Systems Control contracts for the maintenance of the pump and lift stations (Lakeshore, \$0.6 million) and for SCADA services (PCI, \$1.3 million).
- Increase of \$1.8 million in Facility Operations for elevator and HVAC repairs and ground maintenance (\$1.4 million) and repairs of the Hurlbut Gate Memorial (\$0.4 million).
- Increase of \$1.4 million for the increase utilization of the water transmission main repair contracts (Lakeshore and Ric Man).
- Decrease of \$1.7 million for telecom services fees.
- Decrease of \$0.6 million recognized in Fleet Operations due to an adjustment for the true-up of shared services.
- Decrease of \$0.5 million in the year-end claims & judgements accrual.
- Decrease of \$0.3 million for COVID screening services (Hart EMS Medical).

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Management's Discussion and Analysis

The increase in contractual services of \$10.3 million in 2022 is a result of variances throughout various cost centers. The major variances are detailed below:

- Increase of \$3.6 million in the Hydromax and Ric-Man Water Transmission Main Contracts for Field Services.
- Increase of \$3.3 million for increased sludge removal activity at Northeast Water Plant (\$1.8 million), Southwest Water Plant (\$1.3 million), and Springwells Water Plant (\$0.2 million).
- Increase of \$1.7 million due to the net change in year-end adjustment to the legal accrual (\$1.5 million) and an increase of legal services during FY 2022 (\$0.2 million).
- Increase of \$1.5 million in Asset Management for the Linear System Integrity Program (LSIP) which began in FY 2022.
- Increase of \$1.4 million related to the AT&T credit which was received in FY 2021 for overcharges on telecom services that were not billed at the contract rate.
- Increase of \$0.7 million for the increase in business insurance premiums.
- Increase of \$0.5 million recognized in Fleet Operations due to a \$1.0 credit for the true-up of shared services which was posted in FY 2021, half of which was charged to water.
- Decrease 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 \$1.2 million in the amount recorded to water I&E for the development of the AECOM Project Management Information System (PMIS) (\$1.2 million of this project recorded to sewer I&E in FY 2022).

The cost of the utilities increase in 2023 is primarily due to the increase in kWh for electricity.

The increase in chemicals for both 2023 and 2022 is due to the increase in prices of chemicals.

The increase in supplies and other expenses in 2023 is due to increased maintenance needs at the water plants and pumping stations.

Intergovernmental reimbursements will vary year to year based on the amount of activity and any true-ups recorded. The increase in 2023 is due to mostly to an increase in activity. The decrease in reimbursements in 2022 is mostly related to a decrease in activity.

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Management's Discussion and Analysis

The following table details the Water Fund nonoperating revenue and expenses:

Water Fund Nonoperating Revenue (Expenses) (\$000)								
Fiscal Year				Change 2023 vs 2022		Change 2022 vs 2021		
2023	Percentage of Nonoperating Expense	2022	2021	Amount	Percent	Amount	Percent	
Earnings (loss) on investments	\$ 16,724	-18.0%	\$ (2,361)	\$ 769	\$ 19,086	-808.2%	\$ (3,130)	-407.1%
Interest on obligations receivable	24,662	-26.5%	25,107	25,475	(445)	-1.8%	(368)	-1.4%
Interest expense	(131,162)	140.8%	(125,086)	(128,257)	(6,075)	4.9%	3,171	-2.5%
Legacy pension recovery (expense)	7,444	-8.0%	(4,988)	(8,075)	12,432	-249.2%	3,087	-38.2%
Water Residential Assistance Program	(5,023)	5.4%	(1,050)	(593)	(3,974)	378.5%	(457)	77.0%
Other	(5,798)	6.2%	15,999	15,687	(21,797)	-136.2%	312	2.0%
Total Nonoperating Revenue (Expenses)	\$ (93,154)	100.0%	\$ (92,380)	\$ (94,995)	\$ (774)	0.8%	\$ 2,615	-2.8%

Net nonoperating expense of \$93 million is primarily related to interest expense of \$131 million. The interest expense from debt service is \$110.1 million with the remainder related to the regional water system lease, raw water rights obligation and BC Note obligation. Offsets to the nonoperating expenses are the earnings on investments of \$16.7 million and the interest revenue on the obligations receivable of \$24.7 million, which is related to the terms of the Regional Water System Lease.

Earnings on investments increased \$19.1 million in 2023. 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. Although the Federal Reserve started increasing the Fed Funds interest rate in March 2022, the maturity timing of the investments did not allow the Authority to benefit from the increased rates until 2023. The increase in the rates did have a negative impact of the valuation of the investments for 2022 resulting in an increase in unrealized losses for 2022. Unrealized losses most likely will not be realized as the Authority holds most investments until maturity.

The increase in interest expense in 2023 is a result of the revenue bond issue increasing the debt balance in September 2022 and an increase in the state revolving loan balances. The decrease in interest expense in 2022 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 decreases in 2023 and 2022 is mainly related to an increase in investment earnings on the plan assets to offset the expenses.

The increase in the Water Residential Assistance Program expenditures in 2023 is related to modifications in the WRAP program and was expected as a result of increased outreach and participation.

The increase in other expenditures in 2023 is related to a discontinued capital project of \$20.9 million.

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Management's Discussion and Analysis

Sewage Disposal Fund

Sewage Disposal Fund Changes in Net Position (\$000)								
Fiscal Year				Change 2023 vs 2022		Change 2022 vs 2021		
2023	Percentage of Operating Revenue	2022	2021	Amount	Percent	Amount	Percent	
Wholesale customer charges	\$ 275,918	57.3%	\$ 268,813	\$ 267,568	\$ 7,104	2.6%	\$ 1,246	0.5%
Local system charges	191,042	39.6%	188,662	187,960	2,380	1.3%	703	0.4%
Industrial waste charges	8,393	1.7%	8,300	8,005	93	1.1%	295	3.7%
Pollutant surcharges	4,895	1.0%	5,182	6,720	(287)	-5.5%	(1,538)	-22.9%
Other revenues	1,660	0.3%	429	501	1,231	286.5%	(72)	-14.3%
Total operating revenues	481,907	100.0%	471,387	470,754	10,520	2.2%	634	0.1%
Operating expenses	375,567	77.9%	345,372	328,983	30,195	8.7%	16,389	5.0%
Operating Income	106,341	22.1%	126,015	141,770	(19,674)	-15.6%	(15,755)	-11.1%
Nonoperating revenues (expenses)	(106,206)	-22.0%	(130,173)	(135,429)	23,967	-18.4%	5,256	-3.9%
Income (loss) before capital contributions	135	0.0%	(4,158)	6,341	4,293	-103.2%	(10,499)	-165.6%
Capital contributions	2,176	0.5%	6,991	5,960	(4,815)	-68.9%	1,031	17.3%
Change in net position	2,311	0.5%	2,833	12,301	(522)	-18.4%	(9,468)	-77.0%
Net position (deficit), beginning of year	(110,033)		(112,867)	(125,168)	2,833	-2.5%	12,301	-9.8%
Net position (deficit), end of year	\$ (107,722)		\$ (110,033)	\$ (112,867)	\$ 2,311	-2.1%	\$ 2,833	-2.5%

Operating revenues are primarily from wholesale sewer charges of \$275.9 million (57.3 percent of Sewage Disposal Fund revenues). The \$7.1 million increase in 2023 wholesale customer charges is due to a \$3.2 million increase in charges and a \$3.9 million decrease in bad debt expense. Revenues were budgeted at \$272.1 million for 2022 with no expected increase in the allowance for bad debts. Actual revenues were \$272.4 with bad debt expense of \$3.6 million.

The revenue from local system charges of \$191 million account for 39.6 percent of total operating revenues. The increases in 2023 and 2022 local system charges was expected based on the adopted budget and the calculation of 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 2.7 percent of operating revenue which are charged to non-residential users.

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 \$106 million or 22.1 percent of operating revenue.

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Management's Discussion and Analysis

The following table details the Sewage Disposal Fund operating expenses.

Sewage Disposal Fund Operating Expenses (\$000)								
Fiscal Year				Change 2023 vs 2022		Change 2022 vs 2021		
2023	Percentage of Operating Expense	2022	2021	Amount	Percent	Amount	Percent	
Personnel	\$ 65,953	17.6%	\$ 62,161	\$ 63,056	\$ 3,792	6.1%	\$ (895)	-1.4%
Contractual services	64,130	17.1%	63,410	62,913	720	1.1%	497	0.8%
Utilities	43,840	11.7%	30,930	23,921	12,910	41.7%	7,009	29.3%
Chemicals	17,852	4.8%	12,593	7,954	5,259	41.8%	4,639	58.3%
Supplies and other	22,646	6.0%	19,912	21,938	2,734	13.7%	(2,026)	-9.2%
Capital program allocation	(1,017)	-0.3%	(1,014)	(1,069)	(4)	0.4%	55	-5.2%
Intergovernmental reimbursements	(1,747)	-0.5%	(1,074)	(612)	(673)	62.6%	(462)	75.5%
Total operating expenses before depreciation and amortization	211,656	56.4%	186,919	178,101	24,737	13.2%	8,817	5.0%
Depreciation and amortization	163,911	43.6%	158,453	150,882	5,457	3.4%	7,571	5.0%
Total Operating Expenses	<u>\$ 375,567</u>	100.0%	<u>\$ 345,372</u>	<u>\$ 328,983</u>	<u>\$ 30,195</u>	8.7%	<u>\$ 16,389</u>	5.0%

Operating expenses of \$375.6 million represent 77.9 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 \$163.9 million or 43.6 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 2023 and decreases in 2022 are mainly due to the amounts charged in the allocation from both Centralized and Administrative charges. See the Centralized Services and Administrative Services section, which is after the Sewage Disposal Fund discussions, for a discussion of these variances.

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 increased \$.7 million in 2023 which is mainly due to the increased utilization of the specialize services contracts for the remote site work on sewer level sensors and debris removal from the sewer pipes.

Contractual services increased \$.5 million in 2022 which is mainly due to the following:

- Increase of \$1.2 million for the development of the AECOM Project Management Information System (PMIS).
- Increase of \$1.0 million for the use of the New England Fertilizer Co. (NEFCO) contract along with the cost for the material processed through the Biosolids Dryer Facility (BDF) which is based on the increasing consumer price index (CPI).
- Decrease of \$1.7 million in the year-end claims & judgements accrual.

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Utilities increased \$12.9 million in 2023 mainly due to the following:

- Water – Increase of \$10.6 million due to the repair and replacement of existing water meters at the WRRF. Water bills are now being produced with actual readings which are higher than prior years billings. In addition, a new water billing structure was implemented in early FY 2023 which has resulted in an increase in the water billing rate for several of the wastewater facilities.
- Gas – Increase of \$2.2 million due to the continued increase of natural gas cost per MMBTU. In addition, an increase in production has continued at the BDF and wastewater incineration which has led to an increase in natural gas usage.

Utilities increased \$7 million in 2022 due to the following:

- Water – Increase of \$1.7 million due to the repair and replacement of existing meters at the WRRF. Water bills are now being produced with actual readings which are higher than prior years billings.
- Gas – Increase of \$2.5 million due to the cost of natural gas MMBTU which has increased significantly over the past two years. In addition, the BDF and wastewater incineration has had an increase in production which has led to an increase in natural gas usage.
- Electric – Increase of \$2.6 million is the result of DTE changing from a nuclear surcharge recovery to a volumetric delivery surcharge. This change has resulted in an increase to the charge for kWh. In addition, the on-demand rate for electricity significantly increased in FY 2022 due to the wet weather events which resulted in increased usage.
- Sewage – Increase of \$0.2 million is due to the increase in the cost per acre related to drainage charges at various wastewater facilities.

The increase in chemicals in 2023 and 2022 is due to the increase in prices of chemicals as well as the increase in wet weather events which resulted in a need for increase chemical usage.

The supplies and other expenses increased of \$2.7 million in 2023 mainly due to the following:

- Increase of \$1.5 million in allocated supplies and other centralized services. See the Centralized Services and Administrative Services section, which is after the Sewage Disposal Fund discussions, for a discussion of these variances.
- \$1.2 million primarily due to the increased need for the repairs to, and replacement of, equipment at various wastewater facilities.

The supplies and other expenses decreased of \$2 million in 2022 mainly due to the decrease in the number of inspections and amount of permit fees.

Intergovernmental reimbursements will vary year to year based on the amount of activity and any true-ups recorded. The increases in 2023 and 2022 are due to mostly to an increase in activity.

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Management's Discussion and Analysis

The following table details the Sewage Disposal Fund nonoperating revenue and expenses:

Sewage Disposal Fund Nonoperating Revenue (Expenses) (\$000)								
Fiscal Year				Change 2023 vs 2022		Change 2022 vs 2021		
2023	Percentage of Nonoperating Expense	2022	2021	Amount	Percent	Amount	Percent	
Earnings (loss) on investments	\$ 20,877	-19.7%	\$ (3,023)	\$ 491	\$ 23,900	-790.6%	\$ (3,514)	-716.0%
Interest on shortfall and obligations receivable	16,397	-15.4%	17,158	18,248	(760)	-4.4%	(1,090)	-6.0%
Interest expense	(140,129)	131.9%	(131,110)	(135,228)	(9,019)	6.9%	4,118	-3.0%
Legacy pension recovery (expense)	13,322	-12.5%	(8,927)	(14,453)	22,249	-249.2%	5,525	-38.2%
Water Residential Assistance Program	(7,319)	6.9%	(1,743)	(924)	(5,576)	319.9%	(819)	88.6%
Other	(9,354)	8.8%	(2,527)	(3,563)	(6,826)	270.1%	1,035	-29.1%
Total Nonoperating Revenue (Expenses)	\$ (106,206)	100.0%	\$ (130,173)	\$ (135,429)	\$ 23,967	-18.4%	\$ 5,256	-3.9%

Net nonoperating expense of \$106.2 million is primarily related to \$140.1 million of interest expense. Interest expense from debt service is \$118 million with the remainder related to the regional sewage disposal system lease, BC Note obligation and lease payable for the right to use asset. Offsets to the operating expenses are the earning on investments of \$20.9 million and interest revenue of \$16.4 million on the obligations receivable, which is related to the terms of the Regional Sewage Disposal Lease.

Earnings on investments increased \$23.9 million in 2023. 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. Although the Federal Reserve started increasing the Fed Funds interest rate in March 2022, the maturity timing of the investments did not allow the Authority to benefit from the increased rates until 2023. The increase in the rates did have a negative impact of the valuation of the investments for 2022 resulting in an increase in unrealized losses for 2022. Unrealized losses most likely will not be realized as the Authority holds most investments until maturity.

Interest earnings on the shortfall and obligation receivable have decreased for 2023 and 2022 as the balances are being paid down. The shortfall receivable was paid off in 2022.

The increase in interest expense in 2023 is a result of the revenue bond issue increasing the debt balance in September 2022 and an increase in the state revolving loan balances. The decrease in interest expense in 2022 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 decreases in 2023 and 2022 is mainly related to an increase in investment earnings on the plan assets to offset the expenses.

The increase in the Water Residential Assistance Program expenditures in 2023 is related to modifications in the WRAP program and was expected as a result of increased outreach and participation.

The increase in other expenses in 2023 is related to an increase in debt related amortization cost.

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Management's Discussion and Analysis

Centralized Services and Administrative Services

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

Centralized and Administrative Services (\$000)											
Fiscal Year			Change 2023 vs 2022				Change 2022 vs 2021				
			Amount	Percent	Variance Allocation		Amount	Percent	Variance Allocation		
2023	2022	2021			Water	Sewer			Water	Sewer	
Centralized Services											
Personnel	\$ 33,708	\$ 31,777	\$ 30,318	\$ 1,931	6.1%	\$ 985	\$ 946	\$ 1,459	4.8%	\$ 2,307	\$ (847)
Contractual services	54,652	50,777	48,802	3,875	7.6%	2,763	1,111	1,975	4.0%	7,946	(5,971)
Utilities	170	141	136	29	20.6%	16	14	5	3.7%	3	2
Supplies and other expenses	11,149	9,027	8,873	2,122	23.5%	942	1,180	154	1.7%	0	153
Total Centralized Services	\$ 99,679	\$ 91,722	\$ 88,129	\$ 7,957	8.7%	\$ 4,707	\$ 3,251	\$ 3,593	4.1%	\$ 10,256	\$ (6,663)
Administrative Services											
Personnel	\$ 19,429	\$ 16,938	\$ 17,823	\$ 2,491	14.7%	\$ 1,245	\$ 1,245	\$ (885)	-5.0%	\$ (443)	\$ (443)
Contractual services	13,741	14,950	6,524	(1,209)	-8.1%	(933)	(276)	8,426	129.2%	2,383	6,043
Utilities	160	160	24	-	0.0%	(0)	(0)	136	566.7%	68	68
Supplies and other expenses	2,000	1,344	846	656	48.8%	289	367	498	58.9%	79	419
Total Administrative Services	\$ 35,330	\$ 33,392	\$ 25,217	\$ 1,938	5.8%	\$ 602	\$ 1,337	\$ 8,175	32.4%	\$ 2,088	\$ 6,087

Centralized services personnel costs increased \$1.9 million in 2023. This increase is due to salary and wage increases as well as vacancies being filled during FY 2023. Centralized services personnel costs increased \$1.5 million in 2022. Part of this increase was a result of moving the Transformation department to a centralized service classification from the administrative services classification (increase of \$0.6 million to centralized services). The balance of the increase in centralized services is due to increases in personnel costs of \$0.9 million in Security, Systems Operations Control, and Field Services primarily due to overtime.

Administrative personnel costs increased \$2.5 million in 2023. This increase is due to salary and wage increases as well as vacancies being filled during FY 2023. Administrative personnel costs decreased \$0.9 million in 2022. This decrease was a result of moving the transformation department from the administrative services classification to the centralized services classification (decrease of \$0.6 million to administrative services). The remainder of the decrease is due to the closing of the Data Analytics department (\$0.2 million), team members in other departments within Financial Services assumed the responsibilities previously performed in Data Analytics, and a reduction in overtime hours (\$0.1 million).

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Management's Discussion and Analysis

Centralized contractual services increased \$3.9 million in 2023 mainly due to the following:

- Increase of \$4.0 million in the utilization of Systems Control contracts for the maintenance of the pump and lift stations (Lakeshore, \$1.0 million) and for SCADA services (PCI, \$2.3 million); and the increased utilization of the specialize services contracts for the remote site work on sewer level sensors and debris removal from the sewer pipes (\$0.7 million).
- Increase of \$3.2 million in Facility Operations for elevator and HVAC repairs and ground maintenance (\$2.8 million) and repairs of the Hurlbut Gate Memorial (\$0.4 million).
- Increase of \$1.4 million for the increase utilization of the water transmission main repair contracts (Lakeshore and Ric Man).
- Decrease of \$3.4 million for telecom services fees.
- Decrease of \$1.1 million recognized in Fleet Operations due to an adjustment for the true-up of shared services.

Centralized contractual services increased \$2 million in 2022 due to the following:

- Increase of \$2.7 million related to the AT&T credit which was received in FY 2021 for overcharges on telecom services that were not billed at the contract rate.
- Increase of \$1.5 million in Asset Management for the Linear System Integrity Program (LSIP) which began in FY 2022.
- Increase of \$1.0 million related to the wet weather events for Field Services to remove the storm borne solids from three Outfall sites (\$0.5 million), CCTV footage taken of the east side sewer system (\$1.0 million), and a credit of \$0.5 million from insurance proceeds.
- Increase of \$1.0 million recognized in Fleet Operations due to a \$1.0 credit for the true-up of shared services which was posted in FY 2021
- Increase of \$0.2 million in elevator maintenance at various GLWA facilities.
- Decrease of \$2.1 million related to change in use of various Field Services contracts in FY 2022 (usage of these contracts varies from year-to-year) Hydromax (increase \$1.2 million), Ric-Man Water Transmission Main (increase \$2.2 million), Inland Waters Pollution Control (decrease \$5.0), and Lakeshore Global professional services (decrease \$0.5 million).
- Decrease of \$1.5 million in Capital Improvement Planning with the operations & maintenance work wrapping up for AECOM in FY 2021 and shifting to Capital.
- Decrease of \$0.8 million related to COVID-19 deep cleaning at various GLWA facilities.

Administrative contractual services decreased \$1.2 million in 2023. The major variances which total \$1.0 million are detailed below.

- Decrease of \$1.3 million related to the GLWA Board requested independent investigations for the wet weather events.
- Decrease of \$0.5 million for COVID screening services (Hart EMS Medical).
- Increase of \$0.8 million due to the change in the legal claims and adjustment accrual from FY 2022 to FY 2023 (increase of \$2.7 million), claims process and other legal services related to the wet weather events (decrease of \$1.7 million), and non-wet weather event legal services during the fiscal year (decrease of \$0.2 million).

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Management's Discussion and Analysis

Administrative contractual services increased \$8.4 million in 2022. The major variances which total \$8.2 million are detailed below:

- Increase of \$5.5 million due to the change in the legal claims and adjustment accrual from FY 2021 to FY 2022 of \$2.9 million, claims process and other legal services related to the wet weather events of \$2.2 million, and increase of non-wet weather event legal services during the fiscal year of \$0.4 million.
- Increase of \$1.4 million for the increase in business insurance premiums.
- Increase of \$1.3 million related to the GLWA Board requested independent investigations for the wet weather events.

Centralized supplies and other expenses increased in 2023 by \$2.1 million. This increase was a result of the following:

- Increase of \$1.5 million for a full year of implementation costs for the enterprise resource planning (Workday) and enterprise asset management (NEXGEN) systems.
- Increase of \$0.3 million for flooring repairs at the water plants.
- Increase of \$0.3 million for training costs for Field Services Operations and Information Technology.

Administrative supplies and other expenses increased in 2023 by \$0.7 million mainly due to the following:

- Increase of \$0.1 million for livestreaming and video equipment, storage equipment, and shelving for Public Affairs.
- Increase of \$0.3 million for memberships and training for Organizational Development.
- Increase of \$0.2 million for the Rialto warehouse lease.

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Management's Discussion and Analysis

Capital Assets and Debt Administration

GLWA's investment in capital assets is \$4.4 billion (net of accumulated depreciation) with \$2 billion assigned to the Water Fund and \$2.4 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, right to use assets and prepaid subscription assets. Total net capital assets decreased in 2023 and 2022. The 2023 net decrease is attributable to depreciation and disposals in excess of current year additions. The 2022 net decrease is due to depreciation in excess of current year additions. See Note 9 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 Assets, Net (\$000)						
	Fiscal Year			Change 2023 vs 2022		Change 2022 vs 2021	
	2023	2022	2021	Amount	Percent	Amount	Percent
Land	\$ 62,975	\$ 63,302	\$ 62,311	\$ (326)	-0.5%	\$ 991	1.6%
Easements	357,457	357,448	355,202	9	0.0%	2,247	0.6%
Construction in progress	662,933	466,055	395,973	196,878	42.2%	70,081	17.7%
Site improvements	39,640	49,413	58,815	(9,772)	-19.8%	(9,403)	-16.0%
Buildings and structures	1,227,922	1,285,452	1,322,619	(57,530)	-4.5%	(37,168)	-2.8%
Infrastructure	922,572	956,329	1,002,945	(33,756)	-3.5%	(46,617)	-4.6%
Machinery and equipment	1,021,687	1,123,750	1,144,125	(102,063)	-9.1%	(20,375)	-1.8%
Vehicles	7,901	7,198	7,077	703	9.8%	121	1.7%
Leasehold improvements	9,521	10,297	10,444	(776)	-7.5%	(148)	-1.4%
Intangible assets	96,033	95,782	98,653	251	0.3%	(2,871)	-2.9%
Total capital assets (net of depreciation and amortization)	<u>\$ 4,408,642</u>	<u>\$ 4,415,024</u>	<u>\$ 4,458,165</u>	<u>\$ (6,382)</u>	-0.1%	<u>\$ (43,141)</u>	-1.0%

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, Net (\$000)						
	Fiscal Year			Change 2023 vs 2022		Change 2022 vs 2021	
	2023	2022	2021	Amount	Percent	Amount	Percent
Land	\$ 34,478	\$ 34,907	\$ 34,168	\$ (429)	-1.2%	\$ 739	2.2%
Easements	259,139	259,139	258,990	-	0.0%	149	0.1%
Construction in progress	374,244	272,954	204,853	101,290	37.1%	68,101	33.2%
Site improvements	22,560	29,415	36,449	(6,856)	-23.3%	(7,033)	-19.3%
Buildings and structures	389,421	409,923	420,686	(20,502)	-5.0%	(10,763)	-2.6%
Infrastructure	400,027	419,969	458,734	(19,942)	-4.7%	(38,765)	-8.5%
Machinery and equipment	421,616	424,120	397,660	(2,504)	-0.6%	26,460	6.7%
Vehicles	3,233	2,992	3,230	241	8.0%	(238)	-7.4%
Leasehold improvements	6,698	7,240	7,796	(543)	-7.5%	(556)	-7.1%
Intangible assets	89,783	91,067	94,219	(1,284)	-1.4%	(3,153)	-3.3%
Total water fund capital assets (net of depreciation and amortization)	<u>\$ 2,001,197</u>	<u>\$ 1,951,726</u>	<u>\$ 1,916,784</u>	<u>\$ 49,471</u>	2.5%	<u>\$ 34,942</u>	1.8%

Water Fund additions in 2023 and 2022 were mainly due to transfers out of construction in progress to the applicable asset category. Total additions in FY 2023 to construction in progress was \$195.5 million and transfers out of \$72.7 million. The total additions in FY 2022 to the construction in progress were \$158.7 million with \$90.6 million transferred to capital assets. The following table 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/>.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

Water Fund (millions)								
Project Number	Description	Expected Completion Date	Project Plan Estimate	Expenditures		Placed in Service		CIP at 6/30/2023
				FY 2022	FY 2023	FY 2022	FY 2023	
116002	Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements	FY 2026	\$ 99.0	\$ 25.5	\$ 13.2	\$ -	\$ -	\$ 64.6
122013	14 Mile Transmission Main Loop	FY 2025	111.4	18.2	46.1	-	17.2	57.1
122004	96" Main Relocation, Isolation Valve	FY 2032	259.8	6.5	34.8	0.1	-	50.9
132010	West Service Center PS Reservoir, Reservoir Pumping & Divison Valve Upgrades	FY 2024	45.6	19.1	14.7	-	-	42.9
115001	Water Works Park WTP Yard Piping, Valves and Venturi Meters Replacement	FY 2026	55.0	6.3	17.2	-	-	29.2
114002	Springwells WTP Low and High Lift Improvements	FY 2032	281.9	9.5	4.2	-	-	26.6
114011	Springwells WTP Steam, Condensate Return and Compressed Air Piping Improvements	FY 2028	25.9	5.5	1.7	-	24.4	1.3
114008	Springwells WTP Sedimentation Basin Sluice Gates, Guides & Hoists Improvements	FY 2022	14.0	0.6	0.4	-	11.7	0.4
341001	Security Infrastructure Improvements	FY 2022	4.2	-	-	-	9.2	-
122003	Water Works Park to Northeast Transmission Main	FY 2028	147.8	13.6	3.8	29.8	-	-
122005	Schoolcraft Road Water Transmission Main	FY 2022	15.0	8.0	3.4	13.7	-	3.4
122006	Wick Road Water Transmission Main	FY 2022	25.7	5.4	2.5	20.8	-	4.3
	Other projects			40.5	53.5	26.2	10.2	93.5
	Total			<u>\$ 158.7</u>	<u>\$ 195.5</u>	<u>\$ 90.6</u>	<u>\$ 72.7</u>	<u>\$ 374.2</u>

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, Net (\$000)						
	Fiscal Year			Change 2023 vs 2022		Change 2022 vs 2021	
	2023	2022	2021	Amount	Percent	Amount	Percent
Land	\$ 28,498	\$ 28,395	\$ 28,143	\$ 103	0.4%	\$ 252	0.9%
Easements	98,319	98,310	96,211	9	0.0%	2,098	2.2%
Construction in progress	288,689	193,100	191,120	95,588	49.5%	1,980	1.0%
Site improvements	17,081	19,997	22,367	(2,917)	-14.6%	(2,369)	-10.6%
Buildings and structures	838,501	875,529	901,933	(37,028)	-4.2%	(26,405)	-2.9%
Infrastructure	522,545	536,359	544,212	(13,814)	-2.6%	(7,852)	-1.4%
Machinery and equipment	600,071	699,630	746,466	(99,559)	-14.2%	(46,836)	-6.3%
Vehicles	4,668	4,206	3,847	463	11.0%	359	9.3%
Leasehold improvements	2,823	3,056	2,648	(234)	-7.6%	408	15.4%
Intangible assets	6,251	4,716	4,434	1,535	32.6%	282	6.4%
Total sewage disposal fund capital assets (net of depreciation and amortization)	<u>\$ 2,407,445</u>	<u>\$ 2,463,298</u>	<u>\$ 2,541,381</u>	<u>\$ (55,853)</u>	-2.3%	<u>\$ (78,083)</u>	-3.1%

Sewage Disposal Fund additions in 2023 and 2022 were mainly due to transfers out of construction in progress to the applicable asset category. Total additions for FY 2023 to construction in progress was \$102.5 million and transfers out of \$6.9 million. The total additions for FY 2022 to the construction in progress were \$67.4 million with \$65.5 million transferred to capital assets. Much of the activity for the year is related to the Water Resource Recovery Facility. The following table 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/>.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

Sewage Disposal Fund (millions)								
Project Number	Description	Expected Completion Date	Project Plan Estimate	Expenditures		Placed in Service		CIP at 6/30/2022
				FY 2022	FY 2023	FY 2022	FY 2023	
222002	Detroit River Interceptor Evaluation and Rehabilitation	FY 2028	\$ 77.2	\$ 5.2	\$ 8.8	\$ -	\$ -	\$ 51.1
232001	Fairview Pumping Station - Replace Four Sanitary Pumps	FY 2023	39.8	8.4	5.0	-	-	43.7
213007	WRRF Modification to Incinerator Sludge Feed Systems at Complex - II	FY 2022	23.8	1.7	1.1	-	-	22.9
260201	Emergency Sewer Repair	FY 2023	38.3	5.8	3.8	-	-	20.2
260701	Conveyance System Infrastructure Improvements	FY 2026	55.6	0.9	10.9	-	-	13.2
260614	CSO Structural Inspection & Improvements	FY 2025	13.6	4.6	5.4	-	-	12.3
341002	Security Infrastructure Improvements	FY 2022	1.9	0.3	-	-	3.2	-
260621	Conner Creek Dike Improvements	FY 2022	2.5	1.9	-	-	2.2	-
260620	Baby Creek Roof Replacement	FY 2022	1.0	0.6	0.4	-	1.0	-
211004	Pump Station 1 Rack & Grit and MPI Sampling Station 1 Improvements	FY 2022	28.5	-	-	27.9	-	-
214001	WRRF Relocation of Industrial Waste Control Division and Analytical Laboratory Operations	FY 2022	14.3	0.1	-	12.0	-	-
260603	Conner Creek CSO RTB Automation Improvements	FY 2022	8.2	0.2	-	7.7	-	-
	Other projects			<u>37.7</u>	<u>67.1</u>	<u>17.9</u>	<u>0.5</u>	<u>125.3</u>
	Total			<u>\$ 67.4</u>	<u>\$ 102.5</u>	<u>\$ 65.5</u>	<u>\$ 6.9</u>	<u>\$ 288.7</u>

GREAT LAKES WATER AUTHORITY

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 12 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 \$5.4 billion of long-term debt for revenue bonds and state revolving fund loans. Of the total, \$2.5 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 2023 vs 2022		Change 2022 vs 2021	
	2023	2022	2021	Amount	Percent	Amount	Percent
Revenue bonds	\$ 4,840,395	\$ 4,568,635	\$ 4,707,965	\$ 271,760	5.9%	\$ (139,330)	-3.0%
Capital appreciation bonds	-	-	5,675	-	0.0%	(5,675)	-100.0%
State revolving loans	557,276	489,078	488,027	68,198	13.9%	1,051	0.2%
Total revenue bonds and loans	<u>\$ 5,397,671</u>	<u>\$ 5,057,713</u>	<u>\$ 5,201,667</u>	<u>\$ 339,958</u>	6.7%	<u>\$ (143,954)</u>	-2.8%

Water Fund

The total outstanding debt for the Water System is \$2.5 billion, increasing by \$248 million from the prior year. The Authority issued \$207.2 million in revenue bonds in September 2022 which will be used for water system capital improvements.

Approximately 8 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 \$104.8 million in new state revolving fund loans and received \$1.8 million in loan forgiveness. The amount of state revolving fund loans pass-through to DWSD for local system improvements was \$17.7 million as well as the \$1.8 million in loan forgiveness.

	Water Fund Revenue Bonds and Loans (\$000)						
	Fiscal Year			Change 2023 vs 2022		Change 2022 vs 2021	
	2023	2022	2021	Amount	Percent	Amount	Percent
Revenue bonds	\$ 2,279,260	\$ 2,128,890	\$ 2,192,510	\$ 150,370	7.1%	\$ (63,620)	-2.9%
State revolving loans	207,357	109,429	71,260	97,928	89.5%	38,169	53.6%
Total water revenue bonds and loans	<u>\$ 2,486,617</u>	<u>\$ 2,238,319</u>	<u>\$ 2,263,770</u>	<u>\$ 248,298</u>	11.1%	<u>\$ (25,451)</u>	-1.1%

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.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

Sewage Disposal Fund

The total outstanding debt for the Sewage Disposal System is \$2.9 billion, increasing by \$91.7 million from the prior year. The Authority issued \$210.5 million in revenue bonds in September 2022, \$12.5 million of which was used for a refunding which resulted in a net present value savings from the refunding transaction of \$0.2 million. The new money portion of \$198 million will be used for sewage disposal system capital improvements.

Approximately 12 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 \$18.6 million in new state revolving fund loans and received \$0.4 million in loan forgiveness. The amount of state revolving fund loans pass-through to DWSD for local system improvements was \$0.9 million as well as the \$0.4 million in loan forgiveness.

Sewage Disposal Fund Revenue Bonds and Loans (\$000)							
	Fiscal Year			Change 2023 vs 2022		Change 2022 vs 2021	
	2023	2022	2021	Amount	Percent	Amount	Percent
Revenue bonds	\$ 2,561,135	\$ 2,439,745	\$ 2,515,455	\$ 121,390	5.0%	\$ (75,710)	-3.0%
Capital appreciation bonds	-	-	5,675	-	0.0%	(5,675)	-100.0%
State revolving loans	349,919	379,648	416,768	(29,729)	-7.8%	(37,120)	-8.9%
Total sewer revenue bonds and loans	<u>\$ 2,911,054</u>	<u>\$ 2,819,393</u>	<u>\$ 2,937,898</u>	<u>\$ 91,661</u>	3.3%	<u>\$ (118,505)</u>	-4.0%

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.

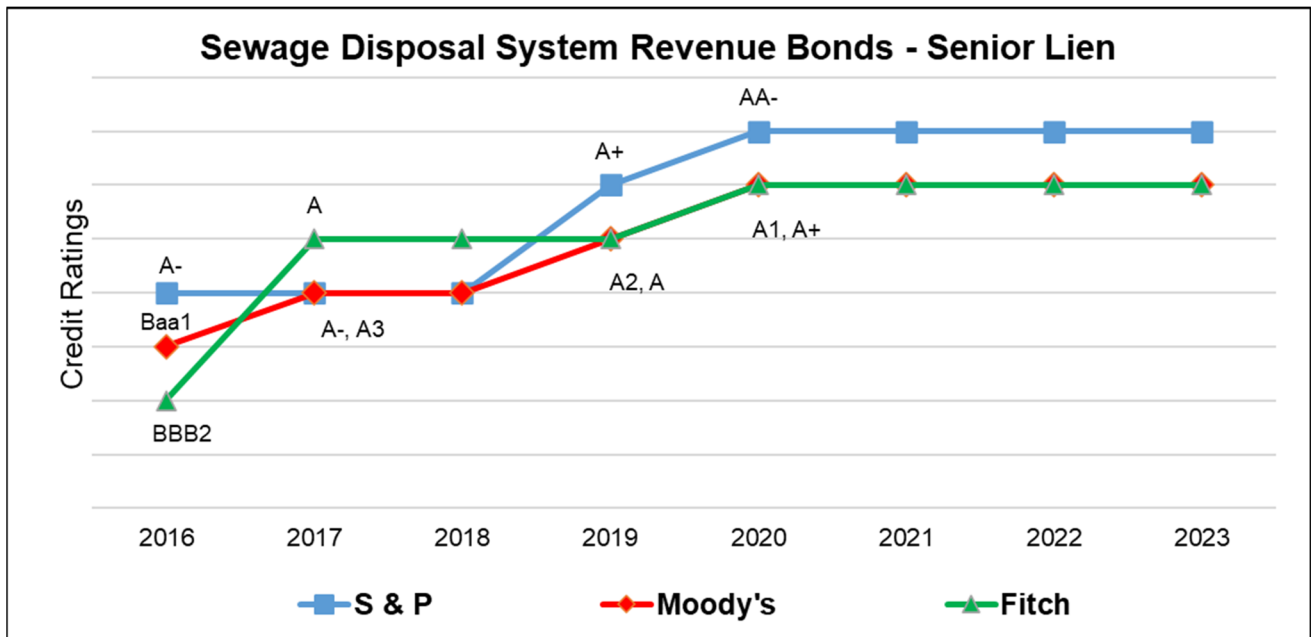
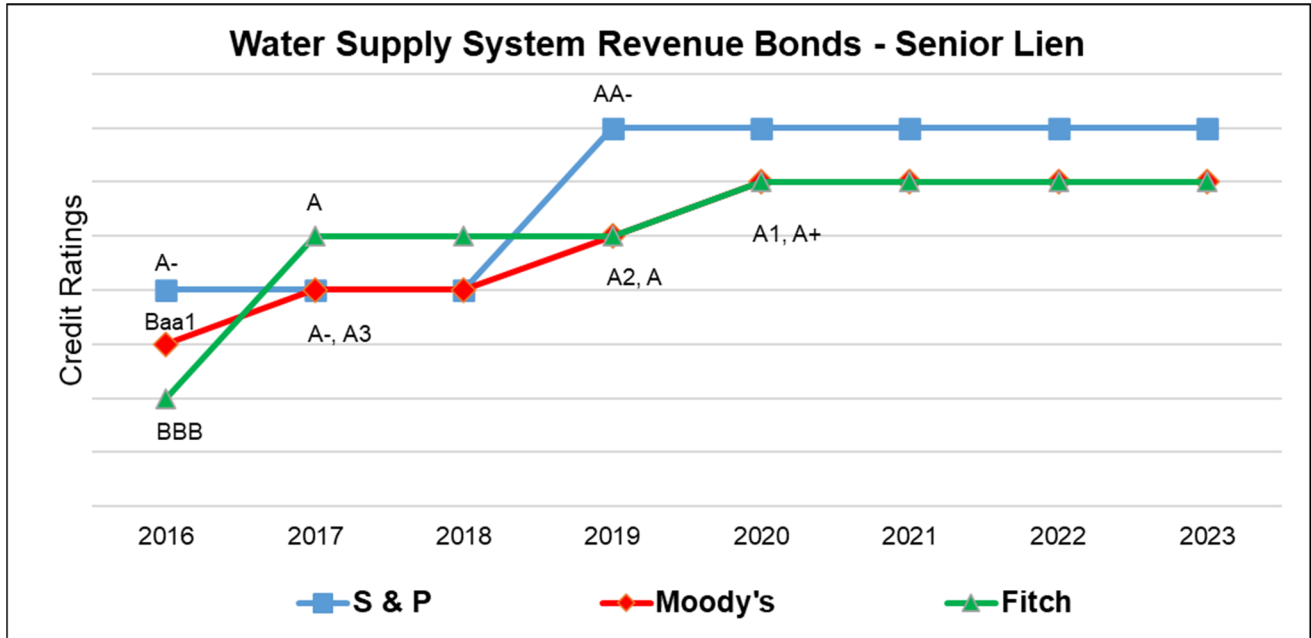
Credit Ratings

In October 2023, the Authority's ratings were upgraded or affirmed. Fitch Ratings affirmed the ratings for the water system with senior lien debt at A+ and second lien at A, the water system remained a stable outlook; Fitch Ratings upgraded the sewage disposal system senior lien to AA- and second lien to A+, the outlook remained positive; Standard & Poor's affirmed the Authority's ratings with senior lien debt at AA- and second lien at A+, all with a stable outlook; and Moody's upgraded the Authority's ratings of senior lien debt at Aa3 and second lien at A1, the outlook was moved to stable from positive for both the water system and the sewage disposal system.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

The following charts provide the credit rating history, at the end of each fiscal year, 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 12.

GREAT LAKES WATER AUTHORITY

Management's Discussion and Analysis

Economic Factors Affecting Next Year's Operations and Rates

On February 22, 2023, the GLWA Board adopted the biennial budget for the Authority for fiscal years 2024 and 2025. 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 2024 the budget increased by 4 percent. This translated into a regional system average charge increase of 2.75 percent and suburban wholesale member partner average charge increase of 2.1 percent depending on each customer's contractual adjustments and results of the fiscal year 2024 Water cost of Service study. The local system charge increased 6.2 percent.

Sewage Disposal Fund

For FY 2024 the budget increased by 4 percent. This translated into a regional system average charge increase of 2.75 percent and suburban wholesale member partner average charge increase of 2.6 percent depending on each customer's contractual adjustments. The local system charge increased 2.8 percent.

City of Highland Park

In October, the Authority, the City of Highland Park (HP) and the State of Michigan (State) executed a term sheet which provides an outline for the resolution to the years of ongoing litigation. The term sheet provides for payment assurances from HP, investment in capital improvements for GLWA and HP funded by the State, and installation of meters funded by the State to create confidence that HP is being billed equitably for its use of the regional water and sewer systems.

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

GREAT LAKES WATER AUTHORITY

STATEMENT OF NET POSITION

As of June 30, 2023

With Comparative Amounts at June 30, 2022

	Enterprise Funds		Total	2022 Total
	Water Fund	Sewage Disposal Fund	Business-type Activities	Business-type Activities
Assets				
Current Assets				
Cash and cash equivalents	\$ 222,625,550	\$ 260,110,098	\$ 482,735,648	\$ 347,655,417
Restricted cash and cash equivalents	127,679,570	137,098,372	264,777,942	87,643,974
Restricted cash for the benefit of DWSD	17,474,699	24,989,273	42,463,972	20,469,633
Investments	21,081,772	42,159,523	63,241,295	185,209,092
Restricted investments	9,975,144	33,698,337	43,673,481	103,754,094
Receivables, net	72,947,774	37,685,656	110,633,430	117,756,554
Due from other governments	5,785,565	6,095,717	11,881,282	13,454,460
Due from other funds	1,032,754	2,214,714	3,247,468	2,328,086
Contractual obligation receivable	20,608,286	16,060,725	36,669,011	33,529,695
Prepaid items and other assets	10,795,086	5,678,605	16,473,691	13,622,385
Inventories	-	10,649,496	10,649,496	8,366,771
Total Current Assets	510,006,200	576,440,516	1,086,446,716	933,790,161
Noncurrent Assets				
Restricted cash and cash equivalents	96,480,165	66,482,098	162,962,263	5,264,591
Restricted investments	22,002,166	112,322,569	134,324,735	40,691,319
Contractual obligation receivable	544,820,801	354,229,111	899,049,912	919,288,110
Prepaid lease	11,250,000	13,750,000	25,000,000	25,000,000
Capital assets				
Nondepreciable/nonamortizable	670,557,112	418,201,364	1,088,758,476	887,940,328
Depreciated/amortized, net	1,330,639,811	1,989,243,893	3,319,883,704	3,527,083,870
Prepaid insurance on debt	5,995,322	9,147,648	15,142,970	16,773,793
Total Noncurrent Assets	2,681,745,377	2,963,376,683	5,645,122,060	5,422,042,011
Total Assets	3,191,751,577	3,539,817,199	6,731,568,776	6,355,832,172
Deferred Outflows of Resources				
Deferred charge on refunding	39,316,288	94,632,191	133,948,479	152,338,303
Deferred pension amounts	17,107,308	30,616,652	47,723,960	30,158,700
Total Deferred Outflows of Resources	56,423,596	125,248,843	181,672,439	182,497,003

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

	Enterprise Funds		Total	2022 Total
	Water Fund	Sewage Disposal Fund	Business-type Activities	Business-type Activities
Liabilities				
Current Liabilities				
Accounts and contracts payable	\$ 60,207,304	\$ 53,101,194	\$ 113,308,498	\$ 94,379,034
Accrued salaries, wages and benefits	1,757,758	305,601	2,063,359	2,060,030
Accrued liabilities	25,111,216	28,840,076	53,951,292	25,004,633
Due to other governments	3,124,058	3,750,000	6,874,058	21,360,601
Due to other funds	2,214,714	1,032,754	3,247,468	2,328,086
Interest payable	41,789,634	40,400,733	82,190,367	70,965,548
Current portion of				
Revenue bonds and loans	62,332,082	87,393,258	149,725,340	127,403,800
Raw water rights obligation	2,963,619	-	2,963,619	2,845,282
BC Note obligation	214,151	481,694	695,845	662,710
Regional system leases	5,928,467	7,245,904	13,174,371	12,637,211
Other liabilities	3,743,223	25,439,622	29,182,845	6,813,946
Total Current Liabilities	209,386,226	247,990,836	457,377,062	366,460,881
Noncurrent Liabilities				
Revenue bonds and loans	2,592,206,224	2,899,287,729	5,491,493,953	5,149,961,142
Raw water rights obligation	89,552,155	-	89,552,155	92,515,774
BC Note obligation	16,124,188	36,268,418	52,392,606	53,088,452
Regional system leases	394,167,195	481,759,905	875,927,100	889,101,471
Other liabilities	3,713,668	29,864,963	33,578,631	21,122,269
Net pension liability	22,645,805	40,528,802	63,174,607	65,221,327
Total Noncurrent Liabilities	3,118,409,235	3,487,709,817	6,606,119,052	6,271,010,435
Total Liabilities	3,327,795,461	3,735,700,653	7,063,496,114	6,637,471,316
Deferred Inflows of Resources				
Deferred gain on refunding	44,182,654	37,087,199	81,269,853	88,783,069
Deferred amounts for swap terminations	56,712	377	57,089	61,895
Deferred pension amounts	-	-	-	31,311,922
Total Deferred Inflows of Resources	44,239,366	37,087,576	81,326,942	120,156,886
Net Position (Deficit)				
Net investment in capital assets	(198,390,747)	(138,162,246)	(336,552,993)	(194,715,306)
Restricted for construction	-	2,180,985	2,180,985	-
Restricted for debt service	56,139,482	91,296,778	147,436,260	123,414,653
Restricted for payment assistance program	2,289,905	2,362,658	4,652,563	12,318,423
Unrestricted	16,101,706	(65,400,362)	(49,298,656)	(160,316,797)
TOTAL NET POSITION (DEFICIT)	\$ (123,859,654)	\$ (107,722,187)	\$ (231,581,841)	\$ (219,299,027)

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

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GREAT LAKES WATER AUTHORITY

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

For the Year Ended June 30, 2023

With Comparative Amounts at June 30, 2022

	Enterprise Funds		Total Business-type Activities	2022 Total Business-type Activities
	Water Fund	Sewage Disposal Fund		
Operating Revenues				
Wholesale customer charges	\$ 340,593,806	\$ 275,917,502	\$ 616,511,308	\$ 591,839,582
Local system charges	22,834,300	191,042,200	213,876,500	210,359,500
Industrial waste charges	-	8,393,103	8,393,103	8,300,278
Pollutant surcharges	-	4,894,567	4,894,567	5,181,816
Other revenues	350,991	1,660,020	2,011,011	663,953
Total Operating Revenues	363,779,097	481,907,392	845,686,489	816,345,129
Operating Expenses				
Operating expenses before depreciation and amortization				
Personnel	48,855,342	65,952,676	114,808,018	107,053,390
Contractual services	52,817,187	64,129,786	116,946,973	114,094,006
Utilities	33,436,545	43,839,991	77,276,536	59,655,751
Chemicals	12,689,666	17,852,397	30,542,063	20,382,163
Supplies and other expenses	11,926,150	22,645,561	34,571,711	29,069,352
Capital program allocation	(1,172,302)	(1,017,340)	(2,189,642)	(2,632,136)
Intergovernmental reimbursements	(3,385,540)	(1,746,945)	(5,132,485)	(2,887,881)
Total operating expenses before depreciation and amortization	155,167,048	211,656,126	366,823,174	324,734,645
Depreciation	126,485,762	163,470,838	289,956,600	281,209,656
Amortization of intangible assets	3,566,664	439,704	4,006,368	4,006,368
Total Operating Expenses	285,219,474	375,566,668	660,786,142	609,950,669
Operating Income	78,559,623	106,340,724	184,900,347	206,394,460
Nonoperating Revenues (Expenses)				
Earnings (loss) on investments	16,724,485	20,877,345	37,601,830	(5,384,278)
Interest on shortfall and obligations receivable	24,662,083	16,397,278	41,059,361	42,264,765
Interest expense	(131,161,860)	(140,129,194)	(271,291,054)	(256,196,504)
Amortization of debt related items and cost of issuance	14,577,852	(10,579,542)	3,998,310	13,318,015
Legacy pension recovery (expense)	7,443,572	13,321,630	20,765,202	(13,915,303)
Water Residential Assistance Program	(5,023,436)	(7,319,076)	(12,342,512)	(2,792,837)
Other	526,389	1,225,939	1,752,328	153,741
Discontinued capital projects	(20,902,626)	-	(20,902,626)	-
Total Nonoperating Expenses	(93,153,541)	(106,205,620)	(199,359,161)	(222,552,401)
Income (loss) before capital contributions	(14,593,918)	135,104	(14,458,814)	(16,157,941)
Capital Contributions	-	2,176,000	2,176,000	6,991,039
Change in Net Position	(14,593,918)	2,311,104	(12,282,814)	(9,166,902)
NET POSITION (DEFICIT), Beginning of Year	(109,265,736)	(110,033,291)	(219,299,027)	(210,132,125)
NET POSITION (DEFICIT), END OF YEAR	\$ (123,859,654)	\$ (107,722,187)	\$ (231,581,841)	\$ (219,299,027)

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

GREAT LAKES WATER AUTHORITY

STATEMENT OF CASH FLOWS
For the Year Ended June 30, 2023
With Comparative Amounts at June 30, 2022

	Enterprise Funds		Total	2022 Total
	Water Fund	Sewage Disposal Fund	Business-type Activities	Business-type Activities
Cash Flows From Operating Activities				
Cash received from customers	\$ 355,242,971	\$ 489,095,449	\$ 844,338,420	\$ 805,137,009
Cash received from intergovernmental reimbursements	10,611,322	1,593,091	12,204,413	3,283,179
Cash payments for intergovernmental services provided	(3,385,540)	(1,746,945)	(5,132,485)	(2,887,882)
Cash payments to suppliers for goods and services	(115,165,508)	(148,900,878)	(264,066,386)	(219,936,004)
Cash payments for employee services	(45,728,366)	(65,650,055)	(111,378,421)	(109,013,137)
Cash payments to other governments for obligation payable	(875,507)	(1,969,296)	(2,844,803)	(2,844,803)
Cash payments for WRAP	(2,999,887)	(4,295,104)	(7,294,991)	(2,792,838)
Cash payments for GLWA share pension agreement	(11,440,800)	(20,475,400)	(31,916,200)	(31,916,200)
Cash received from insurance claims	-	2,140,310	2,140,310	665,506
Cash received from grants	25,198	-	25,198	-
Cash received (paid) nonoperating income (expense)	(5,718)	326,029	320,311	435,472
Cash received from EFSD for DWSD local system	-	31,724,639	31,724,639	-
Cash received for DWSD nonoperating pension	4,427,400	3,066,700	7,494,100	7,494,100
Cash paid for DWSD nonoperating pension	(4,427,393)	(3,066,806)	(7,494,199)	(7,494,199)
Cash received for DWSD WRAP	841,300	1,279,600	2,120,900	2,181,500
Cash payments for DWSD WRAP	(621,375)	(1,096,487)	(1,717,862)	(2,181,500)
Cash increase from DWSD budgetary surplus (1)	6,097,784	15,802,842	21,900,626	13,494,999
Principal payments received on obligation receivable	17,358,850	14,995,300	32,354,150	30,064,956
Interest received on obligation receivable	25,345,025	16,804,261	42,149,286	43,569,623
Advanced payments received on obligation receivable	5,623	88,139	93,762	530,431
Payments received from DWSD for previous year budget shortfall	-	-	-	8,296,578
Interest payments received on previous year budget shortfall	-	-	-	144,918
Cash received from DWSD for cost of issuance fees	29,500	-	29,500	99,000
Cash payments for issuance costs on DWSD obligation receivable	-	-	-	(128,500)
Payments of state revolving fund loan proceeds to DWSD	(23,886,889)	(853,459)	(24,740,348)	(13,139,489)
Net Cash Provided by Operating Activities	211,447,990	328,861,930	540,309,920	523,062,719
Cash Flows From Noncapital Financing Activities				
Proceeds from state revolving fund loans for DWSD	17,694,392	853,459	18,547,851	19,331,986
Cash received from grants	511,714	332,333	844,047	296,306
Principal payments	(17,358,850)	(14,995,300)	(32,354,150)	(30,064,956)
Interest payments	(23,188,902)	(16,833,365)	(40,022,266)	(43,217,819)
Net Cash Used in Noncapital Financing Activities	(22,341,646)	(30,642,873)	(52,984,518)	(53,654,483)

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

	Enterprise Funds		Total Business-type Activities	2022 Total Business-type Activities
	Water	Sewage		
	Fund	Disposal Fund		
Cash Flows From Capital and Related Financing Activities				
Proceeds from insurance claims	\$ -	\$ 713,750	\$ 713,750	\$ 345,645
Proceeds from grants	-	226,996	226,996	-
Proceeds from sale of assets	195,874	1,208,505	1,404,379	254,985
Cash received from capital contribution	-	2,176,000	2,176,000	-
Proceeds from revenue bonds	228,878,775	218,550,892	447,429,667	-
Proceeds from state revolving fund loans	87,088,198	17,712,417	104,800,615	34,857,297
Payments to bond escrow agent	-	(5,507,101)	(5,507,101)	-
Payment of bond issuance costs	(878,769)	(1,008,501)	(1,887,270)	(241,725)
Principal payments on bonds	(44,582,900)	(104,021,130)	(148,604,030)	(164,753,100)
Principal payments on regional system leases	(5,686,745)	(6,950,466)	(12,637,211)	(12,121,951)
Principal payments on right to use lease	-	(366,784)	(366,784)	(189,119)
Interest payments	(98,303,474)	(115,763,766)	(214,067,241)	(207,677,754)
Purchase of capital assets	<u>(197,407,129)</u>	<u>(97,706,397)</u>	<u>(295,113,526)</u>	<u>(234,548,770)</u>
Net Cash Used in Capital and Related Financing Activities	<u>(30,696,170)</u>	<u>(90,735,585)</u>	<u>(121,431,756)</u>	<u>(584,074,492)</u>
Cash Flows From Investing Activities				
Investment purchases	(388,757,476)	(484,579,004)	(873,336,480)	(521,273,043)
Investment sales and maturities	474,538,066	503,680,284	978,218,350	575,876,316
Interest received	<u>9,663,877</u>	<u>11,466,817</u>	<u>21,130,694</u>	<u>4,099,724</u>
Net Cash Provided in Investing Activities	<u>95,444,467</u>	<u>30,568,097</u>	<u>126,012,564</u>	<u>58,702,997</u>
Net change in cash and cash equivalents	253,854,641	238,051,569	491,906,210	(55,963,259)
CASH AND CASH EQUIVALENTS, Beginning of Year	<u>210,405,343</u>	<u>250,628,272</u>	<u>461,033,615</u>	<u>516,996,874</u>
CASH AND CASH EQUIVALENTS, END OF YEAR	<u>\$ 464,259,984</u>	<u>\$ 488,679,841</u>	<u>\$ 952,939,825</u>	<u>\$ 461,033,615</u>
STATEMENT OF NET POSITION CLASSIFICATION OF CASH				
Cash and cash equivalents	\$ 222,625,550	\$ 260,110,098	\$ 482,735,648	\$ 347,655,417
Restricted cash and cash equivalents	127,679,570	137,098,372	264,777,942	87,643,974
Restricted cash for the benefit of DWSD	17,474,699	24,989,273	42,463,972	20,469,633
Noncurrent restricted cash and cash equivalents	<u>96,480,165</u>	<u>66,482,098</u>	<u>162,962,263</u>	<u>5,264,591</u>
CASH AND CASH EQUIVALENTS, END OF YEAR	<u>\$ 464,259,984</u>	<u>\$ 488,679,841</u>	<u>\$ 952,939,825</u>	<u>\$ 461,033,615</u>
NONCASH OPERATING ACTIVITIES				
Credits given on billings-Flint KWA obligation	\$ (6,452,573)	\$ -	\$ (6,452,573)	\$ (6,496,428)
Interest income obligation receivable premium amortization	\$ (767,171)	\$ (408,374)	\$ (1,175,545)	\$ (1,130,944)

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

GREAT LAKES WATER AUTHORITY

STATEMENT OF CASH FLOWS
For the Year Ended June 30, 2023
With Comparative Amounts at June 30, 2022

Continued From
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	Enterprise Funds		Total Business-type Activities	2022 Total Business-type Activities
	Water Fund	Sewage Disposal Fund		
NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES				
Bond proceeds deposited into an escrow account for refunding revenue bonds	\$ -	\$ 12,665,243	\$ 12,665,243	\$ -
Bond proceeds paid directly to underwriters for cost of issuance	\$ 635,485	\$ 644,295	\$ 1,279,780	\$ -
Increase in assets from contributed capital	\$ -	\$ -	\$ -	\$ 6,991,039
Decrease in raw water rights obligation	\$ 2,845,282	\$ -	\$ 2,845,282	\$ 2,734,246
Interest paid for raw water rights obligation	\$ 3,607,291	\$ -	\$ 3,607,291	\$ 3,762,182
Increase in unrealized gain (loss) on investments	\$ 5,809,575	\$ 6,108,228	\$ 11,917,803	\$ (3,391,742)
Interest expense due to accretion	\$ -	\$ -	\$ -	\$ 170,931
Amortization income (expense)	\$ 16,091,106	\$ (8,785,146)	\$ 7,305,960	\$ 13,560,740
Reconciliation of Operating Income to Net Cash Provided by Operating Activities:				
Operating income	\$ 78,559,623	\$ 106,340,724	\$ 184,900,347	\$ 206,394,460
Adjustments to reconcile operating income to net cash provided by operating activities:				
Depreciation	126,485,762	163,470,838	289,956,600	281,209,656
Amortization of intangible assets	3,566,664	439,704	4,006,368	4,006,368
Credits for raw water rights	(6,452,573)	-	(6,452,573)	(6,496,427)
Miscellaneous nonoperating income (expense)	(5,718)	44,531	38,813	716,970
Legacy pension recovery (expense) and administrative fee	7,219,715	12,920,996	20,140,711	(14,368,396)
WRAP (Water Residential Assistance Program)	(5,023,436)	(7,319,076)	(12,342,512)	(2,792,837)
Loan forgiveness pass-through to DWSD	(1,758,494)	(358,544)	(2,117,038)	(3,326,000)
Interest income on contractual obligation receivable	24,662,083	16,397,278	41,059,361	42,119,847
Interest income on shortfall receivable	-	-	-	144,918
Interest expense on obligation payable	(671,554)	(1,510,539)	(2,182,093)	(2,213,651)
Changes in:				
Receivables	(2,049,819)	9,172,943	7,123,124	(5,430,665)
Due from other governments	5,982,342	(1,023,013)	4,959,329	(297,845)
Due from other funds	1,295,332	(2,214,714)	(919,382)	620,626
Contractual obligation receivable	2,190,123	14,908,759	17,098,882	15,189,914
Shortfall receivable	-	-	-	8,296,578
Prepaid items and other assets (operating)	(2,154,269)	(692,777)	(2,847,046)	(2,464,760)
Inventories	-	(2,282,725)	(2,282,725)	(571,619)
Accounts payable (operating)	(174,339)	1,355,833	1,181,494	7,698,604
Accrued salaries, wages and benefits	711,084	(707,755)	3,329	(3,968,568)
Accrued liabilities	9,849,789	19,096,870	28,946,659	13,430,822
Due to other governments	(14,486,543)	-	(14,486,543)	1,916,608
Due to other funds	2,214,714	(1,295,332)	919,382	(620,626)
Obligation payable including accrued interest	(203,953)	(458,757)	(662,710)	(631,153)
Other liabilities	(54,171)	35,246,216	35,192,045	743,292
Net pension liability and deferred items	(18,254,372)	(32,669,530)	(50,923,902)	(16,243,397)
NET CASH PROVIDED BY OPERATING ACTIVITIES	\$ 211,447,990	\$ 328,861,930	\$ 540,309,920	\$ 523,062,719

(1) Represents local system retail receipts received in excess of DWSD's current year budget requirements. Amounts will be used to meet future budget requirements.

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

NOTES TO FINANCIAL STATEMENTS

GREAT LAKES WATER AUTHORITY

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GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

ACCOUNTING AND REPORTING PRINCIPLES

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.

REPORTING ENTITY

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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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

GOVERNANCE

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 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 short-term 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.

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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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

Accounts Receivable, Net

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 and intergovernmental agreements, accrued interest receivable on the contractual obligation receivable and grants. The due to other governments includes amounts owed by the Authority to DWSD for shared services and the 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.

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. Other assets include accrued interest receivable on investments.

Inventories

Inventories consist of operating, maintenance and repair parts for 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. The water fund does not report inventory because the amounts are insignificant and for efficiency are recorded in the sewage disposal fund. Any inventory usage by the water fund is charged through an interfund payable to the sewage disposal fund.

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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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 an estimated useful life greater than one year, except for information technology assets and the right to use leased assets. The capitalization threshold for information technology assets is \$1,000,000 with an estimated useful life greater than three years. Subscription-Based Information Technology Arrangement (SBITA) contracts greater than \$1,000,000 are analyzed for the both the quantitative and qualitative aspects of materiality to determine if they will be recorded as an intangible asset under GASB 96. Right to use leased assets have a capitalization threshold of \$1,000,000 for leases greater than one year. 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:

	<u>Useful Lives (In Years)</u>
Site improvements	15
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.

The Authority has recorded an intangible asset for raw water rights which are being amortized on a straight-line basis over 30 years in the water fund. See Note 9 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 14 for a description of the leased right to use asset.

Prepaid Insurance on Debt

Prepaid insurance on debt represents insurance costs incurred in connection with the issuance of long-term debt. Such costs are being amortized over the term of the respective debt using the straight-line method.

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 assets 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 17.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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

Accrued Liabilities

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.
- Pursuant to the water service contract with a customer, the Authority holds a security deposit for \$3,750,000 plus interest earned net of bank fees.
- Amounts owed to the WRAP service delivery partners for WRAP expenses incurred.
- Advanced billings on rentals
- Insurance proceeds received that have not been spent

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 12 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 12 for the details of this obligation.

BC Note Obligation

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 "BC Note Obligation" in Note 12.

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 13 for the details of the regional system leases.

Other Liabilities

Other liabilities include the following liabilities which are discussed in Note 14:

- Lease payable – right to use asset
- Compensated absences
- Workers' compensation
- Claims and judgements
- DWSD local system capital contribution from the Evergreen-Farmington Sanitary Drain Drainage District (EFSD)
- 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 and 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 17 for additional information on the net pension liability.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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 assets 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 pension amounts 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. Deferred inflows of resources from pension amounts relate to differences between expected and actual investment returns. More detailed information on pension amounts can be found in Note 17.

Net Position (Deficit)

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 restricted 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 loss contingency expense of \$2,308,673 for the Water Fund and loss recovery of \$285,717 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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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

Taxes

The Authority pays no direct federal or state taxes except for Social Security and Medicare taxes. The Authority pays a local tax bill for maintenance charges on a county drain and an international local tax on leased property as part of the lease agreement.

Interest Income on Obligations Receivable

Interest income is the interest earned on 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 17 for additional information on this Plan.

Water Residential Assistance Program (WRAP)

The Water Residential Assistance Program is a unique program that started with the formation of GLWA. The program provides that an amount equal to half of one percent of GLWA Regional Systems revenue be set aside to provide assistance to qualified residents in participating communities across southeast Michigan. The amount expensed represents the amount expended for this purpose during the year. Amounts set aside and not spent are shown as restricted cash. Information on restricted assets is disclosed in Note 4.

Centralized Services and Administrative Services

Certain costs incurred by the Authority are allocated between the Water and Sewerage 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, 2023:

<u>Common Costs</u>	<u>Water % Allocation</u>	<u>Water Allocation</u>	<u>Sewer % Allocation</u>	<u>Sewer Allocation</u>	<u>Total Common Costs</u>
Centralized services	52.1%	\$ 51,965,447	47.9%	\$ 47,713,609	\$ 99,679,056
Administrative services	43.1%	\$ 15,238,261	56.9%	\$ 20,091,544	\$ 35,329,805

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

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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

Capital Contribution

A \$2,176,000 capital contribution was recognized during the year from the Evergreen-Farmington Sanitary Drain Drainage District (EFSD). This capital contribution was part of an agreement with the EFSD to increase the capacity in their contract for a local system capital contribution of \$31.6 million and a regional system capital contribution for \$2.2 million. The Authority has recorded a liability for the \$31.6 million local system capital contribution received that is for DWSD and will disburse the funds to DWSD as DWSD incurs the costs related to the specified local system construction project identified in the contract, which will reduce the local system flow into the regional system. The \$2.2 million for the regional system has been restricted for a future capital project.

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

The following GASB pronouncements were implemented in the current fiscal year with no effect on the financial statements as a result of implementation:

- Statement No. 91, Conduit Debt Obligations (effective for fiscal years beginning after December 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. 100, Accounting Changes and Error Corrections-an amendment of GASB Statement No. 62 (effective for fiscal years beginning after June 15, 2023)

NEW ACCOUNTING PRONOUNCEMENTS TO BE IMPLEMENTED IN THE FUTURE

The following GASB pronouncement will be implemented in the future. The Authority has not completed its assessment of the future impact of the adoption of this statement, if any.

- Statement No. 101, *Compensated Absences* (effective for fiscal years beginning after December 15, 2023)

RECLASSIFICATIONS

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

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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 Ordinances; c) the Regional Systems lease payments, which shall be a common-to-all charge; d) GLWA's portion of the GRS net pension liability and the BC Note obligations; 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 as defined in the Master Bond Ordinance; g) deposits to the regional Improvement and Extension Funds; and h) 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 sewerage disposal systems are limited to annual increases in the regional revenue requirement of not more than 4%. This limitation shall not be applicable 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 sewerage 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 sewerage disposal system as required 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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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, 2023 are reported in the basic financial statements as follows:

	Water Fund	Sewage Disposal Fund	Total Business- type Activities
Statement of Net Position			
Cash and cash equivalents	\$ 222,625,550	\$ 260,110,098	\$ 482,735,648
Restricted cash and cash equivalents	127,679,570	137,098,372	264,777,942
Restricted cash for the benefit of DWSD	17,474,699	24,989,273	42,463,972
Investments	21,081,772	42,159,523	63,241,295
Restricted investments	9,975,144	33,698,337	43,673,481
Noncurrent restricted cash and cash equivalents	96,480,165	66,482,098	162,962,263
Noncurrent restricted investments	22,002,166	112,322,569	134,324,735
Total	\$ 517,319,066	\$ 676,860,270	\$ 1,194,179,336
Cash Deposits and Investments			
Bank deposits – checking and savings accounts	\$ 63,007,459	\$ 45,367,531	\$ 108,374,990
Money market accounts	401,252,525	443,312,310	844,564,835
Investments in securities	53,059,082	188,180,429	241,239,511
Total	\$ 517,319,066	\$ 676,860,270	\$ 1,194,179,336

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 \$464,259,984 for the water fund and \$488,679,841 for the sewage disposal fund. The bank balance of the water fund deposits and money market accounts was \$466,465,276 of which \$448,273,029 was uninsured and uncollateralized. The bank balance of the sewage disposal fund deposits and money market accounts was \$488,679,841 of which \$488,429,841 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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 3 – CASH DEPOSITS AND INVESTMENTS (cont.)

INVESTMENTS

Following is a summary of the Authority's investments as of June 30, 2023:

	Water Fund	Standard & Poors Rating	Weighted Maturity In Years
U.S. treasury notes	\$ 24,225,975	AA+	1.22
U.S. government agencies	1,648,515	AA+	0.03
Commercial paper	27,184,592	A1	0.11
Total	\$ 53,059,082		
	Sewage Disposal Fund	Standard & Poors Rating	Weighted Maturity In Years
U.S. treasury notes	\$ 120,578,055	AA+	0.73
U.S. government agencies	1,248,875	AA+	0.03
Commercial paper	66,353,499	A1	0.14
Total	\$ 188,180,429		
	Total	Standard & Poors Rating	Weighted Maturity In Years
U.S. treasury notes	\$ 144,804,030	AA+	0.81
U.S. government agencies	2,897,390	AA+	0.03
Commercial paper	93,538,091	A1	0.13
Total	\$ 241,239,511		

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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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, 2023, 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, 2023, the Authority had greater than 5% of its total investment portfolio concentrated as follows:

<u>Investment Type</u>	<u>Issuer</u>	<u>% of Portfolio</u>
Water Fund		
Commercial paper	Natixis Bank NY	19.90%
Commercial paper	Bank of America Securities	14.81
Commercial paper	Mitsubishi UFJ Financial Group Bank LTD NY	12.38
Sewage Disposal Fund		
Commercial paper	Natixis Bank NY	8.52
Commercial paper	Bank of America Securities	8.27

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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2023

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.

	<u>Level 2</u>
Water Fund	
Investments by fair value:	
U.S. treasury notes	\$ 24,225,975
U.S. government agencies	1,648,515
Commercial paper	<u>27,184,592</u>
Water Fund Total Investments	<u>53,059,082</u>
Sewage Disposal Fund	
Investments by fair value:	
U.S. treasury notes	120,578,055
U.S. government agencies	1,248,875
Commercial paper	<u>66,353,499</u>
Sewage Disposal Fund Total Investments	<u>188,180,429</u>
Total Investments – Business-type activities	<u>\$ 241,239,511</u>

The Authority has no Level 1 or 3 inputs on June 30, 2023.

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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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, 2023.

	Funded from Revenue and Other		Funded from Debt Issuance	
	Unrestricted	Restricted	Restricted	Total
Water Fund				
Receiving fund	\$ 67,350,172 *	\$ -	\$ -	\$ 67,350,172
Operations and maintenance	29,372,504	-	-	29,372,504
Operations and maintenance – legacy pension	-	325,928	-	325,928
Senior lien debt service	-	54,922,269	-	54,922,269
Senior lien bond reserve	-	-	101,461,882	101,461,882
Second and junior lien debt service	-	35,922,001	-	35,922,001
Second lien bond reserve	-	-	49,184,236	49,184,236
Legacy pension obligation	-	595,285	-	595,285
Water residential assistance program (WRAP)	-	4,313,454	-	4,313,454
Budget stabilization	-	2,000,000	-	2,000,000
Extraordinary repair and replacement	28,445,753	-	-	28,445,753
Improvement and extension – regional	118,538,893	-	-	118,538,893
Subtotal – Reserves Defined by Ordinance	243,707,322	98,078,937	150,646,118	492,432,377
Less: Funded by surety (noncash)	-	-	(142,325,062)	(142,325,062)
Total – Reserves Defined by Ordinance (net of surety coverage)	243,707,322	98,078,937	8,321,056	350,107,315
Cash held for the benefit of DWSD	-	17,474,699	-	17,474,699
Construction retainage and deposits	-	22,012,952	-	22,012,952
Construction fund	-	-	127,724,100	127,724,100
Total Cash, Cash Equivalents and Investments Water Fund	<u>\$ 243,707,322</u>	<u>\$ 137,566,588</u>	<u>\$ 136,045,156</u>	<u>\$ 517,319,066</u>

* Balance includes funds sufficient for two months of required Master Bond Ordinance transfers

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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 4 – RESTRICTED ASSETS (cont.)

	Funded from Revenue and Other		Funded from Debt Issuance	Total
	Unrestricted	Restricted	Restricted	
Sewage Disposal Fund				
Receiving fund	\$ 77,775,562*	\$ -	\$ -	\$ 77,775,562
Operations and maintenance	56,941,606	-	-	56,941,606
Operations and maintenance – legacy pension	-	583,707	-	583,707
Senior lien debt service	-	71,023,919	-	71,023,919
Senior lien bond reserve	-	-	105,707,533	105,707,533
Second and junior lien debt service	-	45,844,063	-	45,844,063
Second lien bond reserve	-	-	41,263,877	41,263,877
Legacy pension obligation	-	823,032	-	823,032
Water residential assistance program (WRAP)	-	5,386,630	-	5,386,630
Budget stabilization	-	5,500,000	-	5,500,000
Extraordinary repair and replacement	41,987,982	-	-	41,987,982
Improvement and extension – regional	125,564,471	-	-	125,564,471
Subtotal – Reserves Defined by Ordinance	302,269,621	129,161,351	146,971,410	578,402,382
Less: Funded by surety (noncash)	-	-	(134,091,452)	(134,091,452)
Total – Reserves Defined by Ordinance (net of surety coverage)	302,269,621	129,161,351	12,879,958	444,310,930
Cash held for the benefit of DWSD	-	24,989,273	-	24,989,273
Construction Deposit				
Intergovernmental	-	31,724,639	-	31,724,639
Construction retainage	-	12,792,876	-	12,792,876
Construction funds	-	-	163,042,552	163,042,552
Total Cash, Cash Equivalents and Investments Sewage Disposal Fund	302,269,621	198,668,139	175,922,510	676,860,270
Total Cash, Cash Equivalents and Investments –Business-type Activities	\$ 545,976,943	\$ 336,234,727	\$311,967,666	\$ 1,194,179,336

* Balance includes funds sufficient for two months of required Master Bond Ordinance transfers

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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 4 – RESTRICTED ASSETS (cont.)

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

	Water Fund	Sewage Disposal Fund	Total Business-type Activities
Restricted assets from schedule above:			
From revenue and other	\$ 137,566,588	\$ 198,668,139	\$ 336,234,727
From debt issuance	136,045,156	175,922,510	311,967,666
Amounts payable for liabilities and debt	(215,182,357)	(278,750,228)	(493,932,585)
Restricted Net Position	\$ 58,429,387	\$ 95,840,421	\$ 154,269,808
Restricted net position for:			
Construction	\$ -	\$ 2,180,985	\$ 2,180,985
Debt service	56,139,482	91,296,778	147,436,260
Payment assistance program	2,289,905	2,362,658	4,652,563
Total Restricted Net Position	\$ 58,429,387	\$ 95,840,421	\$ 154,269,808

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	Restricted Current	Restricted Noncurrent	Total
Water Fund				
Cash and cash equivalents	\$ 222,625,550	\$ 127,679,570	\$ 96,480,165	\$ 446,785,285
Cash held for the benefit of DWSD	-	17,474,699	-	17,474,699
Investments	21,081,772	9,975,144	22,002,166	53,059,082
Total Water Fund	243,707,322	155,129,413	118,482,331	517,319,066
Sewage Disposal Fund				
Cash and cash equivalents	260,110,098	137,098,372	66,482,098	463,690,568
Cash held for the benefit of DWSD	-	24,989,273	-	24,989,273
Investments	42,159,523	33,698,337	112,322,569	188,180,429
Total Sewage Disposal Fund	302,269,621	195,785,982	178,804,667	676,860,270
Total Business-type Activities	\$ 545,976,943	\$ 350,915,395	\$ 297,286,998	\$ 1,194,179,336

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 5 – RECEIVABLES, NET

The following is a summary of the net receivables as of June 30, 2023:

	Water Fund	Sewage Disposal Fund	Total Business-type Activities
Receivables, net:			
Billed	\$ 55,359,908	\$ 55,950,458	\$ 111,310,366
Unbilled	33,527,694	24,240,500	57,768,194
Other	286,079	115,479	401,558
Subtotal	89,173,681	80,306,437	169,480,118
Allowance for doubtful accounts	(16,225,907)	(42,620,781)	(58,846,688)
Total Receivables, net	\$ 72,947,774	\$ 37,685,656	\$ 110,633,430

NOTE 6 – DUE FROM OTHER GOVERNMENTS

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

	Water Fund	Sewage Disposal Fund
DWSD-Billed shared services	\$ 644,536	\$ 757,573
DWSD-Unbilled shared services	1,351,751	719,565
DWSD-Accrued interest on obligation receivable	306,114	4,215
Intergovernmental agreements and other	2,233,678	1,028,184
Grants-Federal and State	22,000	2,362,280
State of Michigan FEMA	1,227,486	1,223,900
Total Due From Other Governments	\$ 5,785,565	\$ 6,095,717

NOTE 7 – DUE TO AND DUE FROM OTHER FUNDS

Interfund balances result from the time lag between the dates the interfund reimbursements occur and the payment between the funds are made. Interfund balances for the year ended June 30, 2023 consisted of the following:

	Water Fund – Due from Sewage Disposal Fund	Sewage Disposal Fund - Due from Water Fund	Total Due To
Water Fund – Due to Sewage Disposal Fund	\$ -	\$ 2,214,714	\$ 2,214,714
Sewage Disposal Fund – Due to Water Fund	1,032,754	-	1,032,754
Total Due From	\$ 1,032,754	\$ 2,214,714	\$ 3,247,468

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

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. The total bonds assumed by GLWA on January 1, 2016 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 common-to-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 bond-financed 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. This allocated debt is referred to as "Bifurcated debt" in the table below. 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.

Changes in obligation receivable for the year ended June 30, 2023 were as follows:

	Beginning Balance	Increase	Decrease	Debt Forgiveness	Ending Balance	Due Within One Year
Water Fund						
Obligation Receivable						
Bifurcated debt	\$ 368,672,900	\$ -	\$ (15,890,000)	\$ -	\$ 352,782,900	\$ 16,646,300
New money bonds	136,320,000	-	-	-	136,320,000	1,670,000
State revolving funds	43,759,364	17,694,392	(1,468,850)	(1,758,494)	58,226,412	1,495,200
Total Obligation						
Receivable	548,752,264	17,694,392	(17,358,850)	(1,758,494)	547,329,312	19,811,500
Deferred amounts for:						
Unamortized premiums	18,866,946	-	(767,171)	-	18,099,775	796,786
Total Water Fund	567,619,210	17,694,392	(18,126,021)	(1,758,494)	565,429,087	20,608,286
Sewage Disposal Fund						
Obligation Receivable						
Bifurcated debt	298,804,000	-	(13,333,300)	-	285,470,700	13,910,600
New money bonds	77,345,000	-	(1,530,000)	-	75,815,000	1,590,000
State revolving funds	480,152	853,459	(132,000)	(358,544)	843,067	135,000
Total Obligation						
Receivable	376,629,152	853,459	(14,995,300)	(358,544)	362,128,767	15,635,600
Deferred amounts for:						
Unamortized premiums	8,569,443	-	(408,374)	-	8,161,069	425,125
Total Sewage Disposal Fund	385,198,595	853,459	(15,403,674)	(358,544)	370,289,836	16,060,725
Total Business-type Activities	\$ 952,817,805	\$ 18,547,851	\$ (33,529,695)	\$ (2,117,038)	\$ 935,718,923	\$ 36,669,011

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 8 – CONTRACTUAL OBLIGATION RECEIVABLE (cont.)

The current obligation receivable payment schedule is as follows:

	Year Ended June 30	Principal	Interest	Total
Water Fund				
	2024	\$ 19,811,500	\$ 24,819,135	\$ 44,630,635
	2025	21,209,050	23,905,698	45,114,748
	2026	22,163,300	22,945,688	45,108,988
	2027	23,171,000	21,941,276	45,112,276
	2028	24,215,100	20,890,011	45,105,111
	2029-2033	138,659,900	86,878,204	225,538,104
	2034-2038	173,334,200	52,154,636	225,488,836
	2039-2043	50,743,810	24,741,940	75,485,750
	2044-2048	65,133,561	9,311,955	74,445,516
	2049-2052	8,887,891	421,146	9,309,037
Total Water Fund		547,329,312	288,009,689	835,339,001
Sewage Disposal Fund				
	2024	15,635,600	16,167,161	31,802,761
	2025	16,317,900	15,482,611	31,800,511
	2026	17,031,400	14,768,061	31,799,461
	2027	17,777,000	14,022,161	31,799,161
	2028	18,556,000	13,243,311	31,799,311
	2029-2033	105,095,767	53,304,981	158,400,748
	2034-2038	130,175,100	28,077,000	158,252,100
	2039-2043	18,250,000	8,648,750	26,898,750
	2044-2048	23,290,000	3,607,250	26,897,250
Total Sewage Disposal Fund		362,128,767	167,321,286	529,450,053
Total Business-type Activities		\$ 909,458,079	\$ 455,330,975	\$ 1,364,789,054

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 9 – CAPITAL ASSETS

Capital assets activity for the year ended June 30, 2023 was as follows:

	Beginning Balance	Additions	Disposals	Transfers	Ending Balance
Water Fund					
Nondepreciable and nonamortizable capital assets					
Land	\$ 34,907,091	\$ -	\$ (459,432)	\$ 30,000	\$ 34,477,659
Easements	259,138,946	-	-	-	259,138,946
Construction in progress	272,954,060	195,531,135	(21,543,446)	(72,697,796)	374,243,953
Prepaid subscription assets	413,924	2,282,630	-	-	2,696,554
Total Nondepreciable and Nonamortizable Capital Assets	567,414,021	197,813,765	(22,002,878)	(72,667,796)	670,557,112
Depreciated and amortized capital assets					
Site improvements	84,054,180	-	-	-	84,054,180
Buildings and structures	607,176,076	301,069	-	4,396,850	611,873,995
Infrastructure	668,116,959	-	-	18,883,260	687,000,219
Machinery and equipment	791,592,580	2,770,921	(1,227,769)	49,387,686	842,523,418
Vehicles	5,281,129	1,010,099	(35,607)	-	6,255,621
Leasehold improvements	8,407,125	14,660	-	-	8,421,785
Intangible asset – raw water rights	106,999,919	-	-	-	106,999,919
Total Depreciable and Amortizable Assets	2,271,627,968	4,096,749	(1,263,376)	72,667,796	2,347,129,137
Less: Accumulated depreciation and amortization					
Site improvements	(54,638,999)	(6,855,620)	-	-	(61,494,619)
Buildings and structures	(197,253,224)	(25,200,015)	-	-	(222,453,239)
Infrastructure	(248,147,691)	(38,825,276)	-	-	(286,972,967)
Machinery and equipment	(367,472,545)	(54,280,617)	845,572	-	(420,907,590)
Vehicles	(2,289,286)	(766,983)	33,198	-	(3,023,071)
Leasehold improvements	(1,166,715)	(557,251)	-	-	(1,723,966)
Intangible asset – raw water rights	(16,347,210)	(3,566,664)	-	-	(19,913,874)
Total Accumulated Depreciation and Amortization	(887,315,670)	(130,052,426)	878,770	-	(1,016,489,326)
Total Depreciated and Amortized Capital Assets, Net	1,384,312,298	(125,955,677)	(384,606)	72,667,796	1,330,639,811
Water Fund Net Capital Assets	\$ 1,951,726,319	\$ 71,858,088	\$(22,387,484)	\$ -	\$ 2,001,196,923

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 9 – CAPITAL ASSETS (cont.)

	Beginning Balance	Additions	Disposals	Transfers	Ending Balance
Sewage Disposal Fund					
Nondepreciable and nonamortizable capital assets					
Land	\$ 28,394,607	\$ -	\$ -	\$ 103,090	\$ 28,497,697
Easements	98,309,513	-	-	9,000	98,318,513
Construction in progress	193,100,463	102,501,332	-	(6,913,195)	288,688,600
Prepaid subscription assets	721,724	1,974,830	-	-	2,696,554
Total Nondepreciable and Nonamortizable Capital Assets	320,526,307	104,476,162	-	(6,801,105)	418,201,364
Depreciated and amortized capital assets					
Site improvements	52,506,188	29,059	-	297,474	52,832,721
Buildings and structures	1,167,449,113	111,299	(3,357,364)	2,739,335	1,166,942,383
Infrastructure	625,707,645	-	-	-	625,707,645
Machinery and equipment	1,366,957,111	5,076,774	(2,041,910)	3,764,296	1,373,756,271
Vehicles	6,917,905	1,515,871	(40,344)	-	8,393,432
Leasehold improvements	3,763,966	14,661	-	-	3,778,627
Intangible asset – right to use asset	4,543,607	-	-	-	4,543,607
Total Depreciable and Amortizable Assets	3,227,845,535	6,747,664	(5,439,618)	6,801,105	3,235,954,686
Less: Accumulated depreciation and amortization					
Site improvements	(32,508,704)	(3,243,281)	-	-	(35,751,985)
Buildings and structures	(291,920,318)	(37,049,741)	528,862	-	(328,441,197)
Infrastructure	(89,348,382)	(13,814,055)	-	-	(103,162,437)
Machinery and equipment	(667,327,028)	(108,062,343)	1,704,506	-	(773,684,865)
Vehicles	(2,712,175)	(1,053,257)	40,344	-	(3,725,088)
Leasehold improvements	(707,726)	(248,161)	-	-	(955,887)
Intangible asset – right to use asset	(549,630)	(439,704)	-	-	(989,334)
Total Accumulated Depreciation and Amortization	(1,085,073,963)	(163,910,542)	2,273,712	-	(1,246,710,793)
Total Depreciated and Amortized Capital Assets, Net	2,142,771,572	(157,162,878)	(3,165,906)	6,801,105	1,989,243,893
Sewage Disposal Fund Net Capital Assets	2,463,297,879	(52,686,716)	(3,165,906)	-	2,407,445,257
Business-type Activities Capital Assets, Net	\$4,415,024,198	\$ 19,171,372	\$(25,553,390)	\$ -	\$ 4,408,642,180

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 9 – CAPITAL ASSETS (cont.)

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. The 2015 Water Master Plan recommended right-sizing the capacity of the Regional Water System based on the trends of lower projections of population and water volume demands. The Water Master Plan found that the Authority's combined water treatment plant design capacity was estimated to be over 60% greater than the forecasted 20-year water demands. The total rated capacity of the existing five water treatment plants is 1.7 billion gallons per day. The 2015 Master Plan Update identified likely maximum demands in the range of up to 1.0 billion gallons per day during the 20-year planning period. This provided the rationale to strategically align capacity and service requirements and planning for structural de-rating of capacity as warranted at all of the water treatment plants. The Water Master Plan identified the financial benefit of capital cost avoidance in reducing the combined treatment capacity at all five of the GLWA Water Treatment Plants. That recommendation included the decommissioning of Water Treatment Plants. During FY 2023, operational, regulatory and life cycle cost updates no longer support decommissioning Water Treatment Plants. A report related to the factors that impacted this decision was presented to the GLWA Board of Directors on June 28, 2023 which included a write-off of some or all of the activity for the following CIP projects: 122003 – Waterworks Park to NE Transmission Main, 122017 – Seven Mile/Nevada Transmission Main, and 122018 – Garland, Hurlbut, Bewick Transmission Main. As a result \$20,902,626 has been recognized as a loss for the discontinued capital projects.

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.

PREPAID SUBSCRIPTION ASSETS

The Authority has entered into two contracts for Subscription-Based Information Technology Arrangements (SBITA) that will be recorded under GASB 96. The SBITA's are in the initial implementation stage, therefore costs associated with these SBITA's have been recorded as prepaid subscription assets. Once the subscription assets are placed in service, the costs incurred and any future subscription liability (present value of expected future payments) will be recognized as an intangible right-to-use subscription asset and amortized over the subscription term.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 10 – ACCRUED LIABILITIES

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

	Water Fund	Sewage Disposal Fund
	<u> </u>	<u> </u>
Cash held for the benefit of DWSD	\$ 17,474,699	\$ 24,989,273
Advanced insurance proceeds	-	826,831
Due to WRAP service delivery partners	2,023,549	3,023,972
Advanced billings	1,707,978	-
Customer deposit	<u>3,904,990</u>	<u>-</u>
Total Other Accrued Liabilities	<u>\$ 25,111,216</u>	<u>\$ 28,840,076</u>

NOTE 11 – 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:

	Water Fund	Sewage Disposal Fund
	<u> </u>	<u> </u>
Shared services	\$ 3,124,058	\$ -
Green infrastructure	<u>-</u>	<u>3,750,000</u>
Total Due to Other Governments	<u>\$ 3,124,058</u>	<u>\$ 3,750,000</u>

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – LONG-TERM DEBT

Changes in long-term debt for the year ended June 30, 2023 were as follows:

	Beginning Balance	Increase	Decrease	Debt Forgiveness	Ending Balance	Due Within One Year
Water Fund						
Bonds and Loans						
Revenue bonds	\$2,128,890,000	\$207,215,000	\$ (56,845,000)	\$ -	\$2,279,260,000	\$ 40,250,000
Notes from direct borrowings and direct placements - State revolving loan	109,429,462	104,782,590	(5,096,750)	(1,758,494)	207,356,808	6,985,000
Total Bonds and Loans	2,238,319,462	311,997,590	(61,941,750)	(1,758,494)	2,486,616,808	47,235,000
Deferred amounts for:						
Unamortized premiums	167,471,141	22,299,260	(16,285,358)	-	173,485,043	15,838,410
Unamortized discounts	(6,461,062)	-	897,517	-	(5,563,545)	(741,328)
Total Bonds and Loans, Net	2,399,329,541	334,296,850	(77,329,591)	(1,758,494)	2,654,538,306	62,332,082
Other Debt						
Raw water rights obligation	95,361,056	-	(2,845,282)	-	92,515,774	2,963,619
BC Note obligation	16,542,293	-	(203,954)	-	16,338,339	214,151
Total Water Fund Debt	\$2,511,232,890	\$334,296,850	\$ (80,378,827)	\$ (1,758,494)	\$2,763,392,419	\$ 65,509,852
	Beginning Balance	Increase	Decrease *	Debt Forgiveness	Ending Balance	Due Within One Year
Sewage Disposal Fund						
Bonds and Loans						
Revenue bonds	\$2,439,745,000	\$ 210,455,000	\$ (89,065,000)	\$ -	\$2,561,135,000	\$ 42,565,000
Notes from direct borrowings and direct placements-State revolving loan	379,648,216	18,565,876	(47,936,430)	(358,544)	349,919,118	40,360,000
Total Bonds and Loans	2,819,393,216	229,020,876	(137,001,430)	(358,544)	2,911,054,118	82,925,000
Deferred amounts for:						
Unamortized premiums	117,958,567	21,405,430	(13,213,825)	-	126,150,172	12,912,998
Unamortized discounts	(59,316,382)	-	8,793,079	-	(50,523,303)	(8,444,740)
Total Bonds and Loans, Net	2,878,035,401	250,426,306	(141,422,176)	(358,544)	2,986,680,987	87,393,258
Other Debt						
BC Note obligation	37,208,869	-	(458,757)	-	36,750,112	481,694
Total Sewage Disposal Fund Debt	2,915,244,270	250,426,306	(141,880,933)	(358,544)	3,023,431,099	87,874,952
Total Business-type Activities	\$5,426,477,160	\$ 584,723,156	\$(222,259,760)	\$ (2,117,038)	\$5,786,823,518	\$153,384,804

* Of the \$89,065,000 decrease in revenue bonds, \$17,985,000 relates to the refunding. Of the \$13,213,825 decrease in unamortized premium, \$118,805 relates to the refunding.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – LONG-TERM DEBT (cont.)

As of June 30, 2023, aggregate debt service requirements of the Authority's bonds and loans (fixed and variable-rate) 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.

Year Ended June 30	Bonds		Notes from Direct Borrowings and Direct Placements		Total
	Principal	Interest	Principal	Interest	
Water Fund					
2024 *	\$ 40,250,000	\$ 91,625,071	\$ 6,985,000	\$ 4,099,446	\$ 142,959,517
2025	82,590,000	103,512,277	12,453,950	3,888,845	202,445,072
2026	86,795,000	99,634,323	12,710,000	3,641,836	202,781,159
2027	90,805,000	95,382,395	12,952,820	3,389,809	202,530,024
2028	95,310,000	90,959,407	11,560,000	3,150,348	200,979,755
2029-2033	561,450,000	378,469,377	60,195,190	12,292,397	1,012,406,964
2034-2038	619,035,000	227,124,415	45,605,907	6,887,898	898,653,220
2039-2043	357,870,000	124,057,575	32,398,814	3,045,047	517,371,436
2044-2048	283,025,000	48,048,437	9,272,237	901,376	341,247,050
2049-2053	62,130,000	7,691,537	3,222,890	137,896	73,182,323
Total Water Fund	2,279,260,000	1,266,504,814	207,356,808	41,434,898	3,794,556,520
Sewage Disposal Fund					
2024 *	42,565,000	94,525,671	40,360,000	7,540,414	184,991,085
2025	98,650,000	108,619,233	44,155,870	6,620,084	258,045,187
2026	102,310,000	103,967,844	30,385,000	5,766,016	242,428,860
2027	112,375,000	98,639,973	27,170,308	5,153,979	243,339,260
2028	121,380,000	93,064,784	26,015,853	4,580,573	245,041,210
2029-2033	709,730,000	371,091,560	100,834,490	15,331,025	1,196,987,075
2034-2038	804,840,000	196,090,451	68,458,488	5,307,360	1,074,696,299
2039-2043	359,685,000	74,972,883	12,539,109	389,078	447,586,070
2044-2048	129,810,000	34,090,064	-	-	163,900,064
2049-2053	79,790,000	10,691,206	-	-	90,481,206
Total Sewage Disposal Fund	2,561,135,000	1,185,753,669	349,919,118	50,688,529	4,147,496,316
Total Business- type Activities	\$ 4,840,395,000	\$ 2,452,258,483	\$ 557,275,926	\$ 92,123,427	\$ 7,942,052,836

* 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, 2023 are not included in the debt service requirements amounts above as they were paid on June 26, 2023.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – LONG-TERM DEBT (cont.)

REVENUE BONDS

Net revenues of the Authority are pledged to repayment of bonds; following are the revenue bonds payable at June 30, 2023:

Issue	Bond Date	Original Issue Amount	Range of Interest Rates	Maturity Dates	Outstanding Ending 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 2014D-1	9/04/14	206,540,000	5.00%	7/01/35-37	44,190,000	44,190,000
Series 2014D-2	9/04/14	188,455,000	5.00%	7/01/24-28	182,480,000	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%	7/01/24-36	45,820,000	43,690,000
Series 2015D-1	12/15/15	89,430,000	5.00%	7/01/27-35	69,275,000	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%	7/01/23-46	87,990,000	87,970,000
Series 2016B	10/27/16	163,830,000	5.00%	7/01/23-46	163,820,000	163,800,000
Series 2016C	10/27/16	443,930,000	5.00-5.25%	7/01/23-35	439,065,000	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%	7/01/23-29	109,040,000	-
Series 2020A	5/12/20	42,445,000	5.00%	7/01/24-49	42,445,000	35,685,000
Series 2020B	5/12/20	43,135,000	5.00%	7/01/24-49	43,135,000	36,265,000
Series 2020C**	5/12/20	377,515,000	1.879-3.473%	7/01/23-41	375,645,000	317,530,000
Series 2022A	9/13/22	137,470,000	5.00-5.25%	7/01/25-52	137,470,000	132,900,000
Series 2022B	9/13/22	69,745,000	5.00-5.50%	7/01/25-52	69,745,000	66,710,000
Total Water Fund Revenue Bonds Payable					<u>\$ 2,279,260,000</u>	

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – LONG-TERM DEBT (cont.)

Issue	Bond Date	Original Issue Amount	Range of Interest Rates	Maturity Dates	Outstanding Ending Balance	Callable at Par
Sewage Disposal Fund						
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%	7/01/23-24	11,095,000	-
Series 2005A	3/17/05	273,355,000	4.50%	7/01/35	100,000	100,000
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 2014C-3	9/04/14	446,170,000	5.00%	7/01/24-33	347,585,000	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%	7/01/24-36	48,800,000	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	5.00%	7/01/23-48	77,345,000	67,040,000
Series 2018B	10/03/18	131,690,000	5.00%	7/01/24-29	131,690,000	-
Series 2018C**	10/03/18	44,180,000	3.5-3.613%	7/01/23-24	31,260,000	-
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	2.615-3.606%	7/01/23-44	81,850,000	15,325,000
Series 2022A	9/13/22	125,975,000	5.00-5.25%	7/01/25-52	125,975,000	122,440,000
Series 2022B	9/13/22	71,990,000	5.00-5.25%	7/01/25-52	71,990,000	68,405,000
Series 2022C	9/13/22	12,490,000	5.00%	7/01/23	12,490,000	-
Total Sewage Disposal Fund Revenue Bonds Payable					2,561,135,000	
Total Business-type Activities					\$ 4,840,395,000	

* Interest rates are reset quarterly based upon a formula specified in the bond using the three-month LIBOR rate. Starting with the October 1, 2023 interest rate adjustment date, the Secured Overnight Financing Rate (SOFR) will be used in place of the LIBOR rate.

** Taxable bond

New Money Bond – Water Fund

On September 13, 2022, the Authority completed a new money water supply system revenue bond transaction. The Authority issued \$137,470,000 in Series 2022A senior lien revenue bonds and \$69,745,000 in 2022B second lien revenue bonds for a total issue of \$207,215,000.

Refunded Debt and New Money Bond – Sewage Disposal Fund

On September 13, 2022, the Authority completed a sewage disposal system revenue bond refunding and new money transaction. The Authority issued \$125,975,000 in Series 2022A senior lien revenue bonds, \$71,990,000 in Series 2022B second lien revenue bonds and \$12,490,000 in Series 2022C revenue refunding bonds for a total issue of \$210,455,000. The net proceeds of the Series 2022C were placed with an escrow agent to refund \$17,985,000 of Series 2012A revenue bonds which were called on September 16, 2022. The net present value savings from the refunding transaction was \$211,718.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – LONG-TERM DEBT (cont.)

Arbitrage

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, 2023.

STATE REVOLVING FUND LOANS

The Authority participates in direct borrowings through the State of Michigan Drinking Water State Revolving Fund (DWSRF) to finance qualified water supply system projects and the Clean Water State Revolving Fund (CWSRF) 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 received direct borrowing loans from the State of Michigan Revolving Loan Fund during the year ended June 30, 2023 for the Water Fund totaling \$104,782,590 of which \$1,758,494 has been forgiven, and the Sewage Disposal Fund received \$18,565,876 of which \$358,544 has been forgiven. The water loans forgiven and \$17,694,392 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 sewer loans forgiven and \$853,459 of the Sewage Disposal Fund loans were a pass through to DWSD the subrecipient of the loans. The remaining proceeds of the Sewage Disposal Fund loans were used to pay costs of acquiring, constructing extensions, and making certain repairs and improvements to the regional sewage disposal system. At June 30, 2023, \$73,915,545 for the Water Fund and \$204,517,200 for the Sewage Disposal Fund was authorized and unissued. Of the authorized and unissued \$9,145,105 for the Water Fund and \$9,138,183 of the Sewage Disposal Fund are for pass through loans to DWSD.

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

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – LONG-TERM DEBT (cont.)

The following is a schedule of the state revolving loans payable at June 30, 2023:

Issue	Bond Date	Amount Issued	Range of Interest Rates	Maturity Dates	Outstanding Ending Balance
Water Fund					
Series 2005 SRF-1	9/22/05	\$ 13,805,164	2.125%	10/01/23-26	\$ 3,130,164
Series 2005 SRF-2	9/22/05	8,891,730	2.125%	10/01/23-26	1,976,730
Series 2006 SRF-1	9/21/06	5,180,926	2.125%	10/01/23-26	1,165,926
Series 2008 SRF-1	9/29/08	2,590,941	2.50%	10/01/23-28	650,941
Series 2016 SRF-1	9/16/16	8,273,168	2.50%	4/01/24-48	7,258,168
Series 2016 SRF-2	9/16/16	3,393,543	2.50%	4/01/24-48	2,968,543
Series 2017 SRF-1	6/23/17	5,807,931	2.50%	10/1/23-48	5,192,931
Series 2019 SRF-1	6/7/19	8,330,000	2.00%	10/1/23-40	7,635,000
Series 2019 SRF-2	8/30/19	29,950,000	2.00%	4/1/24-42	27,824,226
Series 2019 SRF-3	8/30/19	11,788,056	2.00%	10/1/23-43	7,447,932
Series 2020 SRF-1	7/31/20	20,538,700	2.00%	4/1/24-52	19,514,960
Series 2020 SRF-2	8/28/20	9,000,000	2.00%	10/1/23-39	6,940,958
Series 2020 SRF-3	8/28/20	8,960,000	2.00%	4/1/24-41	7,909,220
Series 2020 SRF-4	9/30/20	12,153,050	2.00%	4/1/24-47	8,832,593
Series 2021 SRF-1	6/21/21	11,940,000	1.875%	10/1/24-31	4,209,249
Series 2021 SRF-2	8/30/21	104,725,000	1.875%	10/1/24-34	50,945,907
Series 2021 SRF-3	8/30/21	11,528,950	1.875%	10/1/24-41	9,678,360
Series 2022 SRF-2	9/20/22	34,075,000	1.875%	10/1/23-43	34,075,000
Total Water Fund State Revolving Loans Payable					207,356,808

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – LONG-TERM DEBT (cont.)

Issue	Bond Date	Amount Issued	Range of Interest Rates	Maturity Dates	Outstanding Ending Balance
Sewage Disposal Fund					
Series 2001 SRF-1	6/28/01	\$ 82,200,000	2.50%	10/01/23-24	\$ 10,190,000
Series 2001-SRF-2	12/20/01	59,850,000	2.50%	10/01/23-24	7,420,000
Series 2002 SRF-3	12/19/02	31,549,466	2.50%	10/01/23-24	3,594,466
Series 2003 SRF-1	6/26/03	48,520,000	2.50%	10/01/23-25	8,910,000
Series 2003 SRF-2	9/25/03	25,055,370	2.50%	4/01/24-25	3,080,370
Series 2004 SRF-1	6/24/04	2,910,000	2.125%	10/01/23-24	350,000
Series 2004 SRF-2	6/24/04	18,353,459	2.125%	4/01/24-25	2,203,459
Series 2004 SRF-3	6/24/04	12,722,575	2.125%	4/01/24-25	1,517,575
Series 2007 SRF-1	9/20/07	167,540,598	1.625%	10/01/23-29	64,885,598
Series 2009 SRF-1	4/17/09	13,970,062	2.50%	4/01/24-30	5,500,062
Series 2010 SRF-1	1/22/10	4,214,763	2.50%	4/01/24-31	1,910,763
Series 2012 SRF-1	8/30/12	14,950,000	2.50%	10/01/23-34	9,840,000
Series 2015A SRF	3/20/15	79,500,000	2.50%	4/01/24-36	56,015,000
Series 2015B SRF	3/20/15	27,175,304	2.50%	10/01/23-35	18,795,304
Series 2015D SRF	12/11/15	15,321,478	2.50%	10/01/23-35	10,391,478
Series 2016 SAW-1	5/25/16	10,000,000	2.50%	10/01/23-38	8,380,000
Series 2016 SRF-1	9/16/16	15,463,628	2.50%	4/01/24-38	12,133,628
Series 2016 SRF-2	9/16/16	48,315,683	2.50%	4/01/24-39	40,045,683
Series 2017 SRF-1	6/23/17	33,566,682	2.50%	10/01/23-38	28,196,682
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%	10/1/23-35	22,086,744
Series 2020 SRF-2	9/30/20	3,232,000	2.00%	10/1/23-25	843,067
Series 2021 SRF-1	3/26/21	12,940,000	1.875%	10/1/23-30	7,438,078
Series 2021 SRF-2 **	9/24/21	6,881,250	1.875%	-	-
Series 2022 SRF-1 *	6/6/22	34,195,000	1.875%	-	-
Series 2022 SRF-2	8/29/22	50,245,000	1.875%	4/1/25-27	5,630,308
Series 2022 SRF-3	9/20/22	19,035,000	1.875%	4/1/25-28	3,050,853
Series 2023 SRF-1 *	6/5/23	88,820,000	1.875%	-	-
Total Sewage Disposal Fund State Revolving Loans Payable					<u>349,919,118</u>
Total Business-type Activities					<u>\$ 557,275,926</u>

* Loan has been authorized, no draws on loan as of June 30, 2023.

** Current draws on loan fall under loan forgiveness, therefore there is no outstanding balance at June 30, 2023

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – 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, 2023 includes revenues reported by the Great Lakes Water Authority and the City of Detroit Water and Sewerage Department as this revenue is pledged for payment of the bonds and loans of the Great Lakes Water Authority.

The general purpose of the Water System debt is to provide funding for various water treatment and transmission capital improvements, refund certain water revenue bonds, pay termination amounts for interest rate swap agreements and fund reserve requirements. The general purpose of the Sewer System bonds is to provide funding for various wastewater treatment and collection activities, capital improvements, refund certain sewage disposal revenue bonds, pay termination amounts for interest rate swap agreements and fund reserve requirements. The term of pledge commitment for the water bonds is through fiscal year 2053 and the sewage disposal bonds is through 2053.

The table below has the pledged revenue coverage as of June 30, 2023:

	Water Fund	Sewage Disposal Fund
Remaining principal and interest requirement	\$ 3,794,556,520	\$ 4,147,496,316
Principal and interest funding requirement for the year ending June 30, 2023 (calculated on a debt set aside basis consistent with rate covenant basis for rate determination)	\$ 192,800,887	\$ 242,858,798
Pledged revenue for the year ending June 30, 2023	\$ 266,472,915	\$ 325,205,682
Pledged revenue collected as a percentage of funding requirement	138%	134%

At the date of the issuance of the GLWA financial report, DWSD's audited financial report had not been released. The local system amounts used for the calculation above reflect DWSD's management representation of preliminary financial results for the year ended June 30, 2023.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – LONG-TERM DEBT (cont.)

DEBT RATINGS

In August 2022, S&P Global Ratings affirmed the Authority’s senior lien water and sewage disposal systems rating of AA- and its second lien water system rating of A+. The outlook remained stable. Moody’s Investors Service affirmed the Authority’s water system and sewer disposal system senior lien ratings of A1, and its second lien ratings of A2. The outlook was moved to positive from stable for both. Fitch affirmed the Authority’s ratings for its water system and sewer disposal system senior lien bonds at an A+, and its second lien bonds at an A. The outlook was moved to positive from stable for the sewage disposal system. The water system outlook remained stable.

In November 2018, S&P Global Ratings assigned an A+ rating to the Authority’s junior lien water system SRF bonds and in March 2020 the junior lien sewage disposal system SRF bonds were upgraded to A+ from an A rating.

See Note 20 for rating agency upgrades received in October 2023.

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 9).

The future credits to be issued are detailed below:

	<u>Year Ended June 30</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
Water Fund				
	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	3,345,194	3,307,356	6,652,550
	2028	3,483,226	3,169,448	6,652,674
	2029-2033	19,688,493	13,571,493	33,259,986
	2034-2038	24,097,490	9,164,433	33,261,923
	2039-2043	28,187,150	3,811,606	31,998,756
	2044-2046	<u>4,451,858</u>	<u>158,742</u>	<u>4,610,600</u>
Total Water Fund		<u>\$ 92,515,774</u>	<u>\$ 43,879,097</u>	<u>\$ 136,394,871</u>

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – LONG-TERM DEBT (cont.)

BC NOTE OBLIGATION

Under the terms of the lease agreements with the City, the Authority is required to pay a portion of the City's Financial Recovery Bonds, Series 2014-B and 2014-C allocated to the regional water and sewage disposal systems. 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.

The following is a schedule of the BC Note obligation for the Financial Recovery Bonds at June 30, 2023:

Bond Issue (GLWA share)	Original Issue Amount (GLWA share)	Range of Interest Rates	Maturity Date	Outstanding Ending Balance
Water Fund				
Series 2014-B	\$ 26,540,080	4.00% and variable	4/1/44	\$ 15,556,024
Series 2014-C	3,829,794	5.00%	6/30/27	782,315
Total Water Fund				16,338,339
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	1,759,673
Total Sewage Disposal Fund				36,750,112
Total Business-type Activities				\$ 53,088,451

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – LONG-TERM DEBT (cont.)

BC NOTE OBLIGATION (cont.)

As of June 30, 2023, debt service requirements of the BC Note obligation for the Financial Recovery Bonds were as follows:

	Year Ended June 30	Principal	Interest	Total
Water Fund				
	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	885,004	565,378	1,450,382
	2028	777,802	528,905	1,306,707
	2029-2033	3,889,008	2,177,844	6,066,852
	2034-2038	3,889,008	1,928,948	5,817,956
	2039-2043	3,889,008	933,362	4,822,370
	2044	777,793	46,668	824,461
Total Water Fund		16,338,339	8,101,405	24,439,744
 Sewage Disposal Fund				
	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	1,990,655	1,271,711	3,262,366
	2028	1,749,522	1,189,675	2,939,197
	2029-2033	8,747,608	4,898,660	13,646,268
	2034-2038	8,747,608	4,338,813	13,086,421
	2039-2043	8,747,608	2,099,426	10,847,034
	2044	1,749,526	104,971	1,854,497
Total Sewage Disposal Fund		36,750,112	18,222,619	54,972,731
Total Business-type Activities		\$ 53,088,451	\$ 26,324,024	\$ 79,412,475

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 12 – LONG-TERM DEBT (cont.)

INTEREST EXPENSE

The following represents the amounts recorded as interest expense for the year ended June 30, 2023:

	Water Fund	Sewage Disposal Fund	Total Business-type Activities
Revenue bonds and loans	\$ 110,094,574	\$ 117,971,429	\$ 228,066,003
Regional System Lease	16,793,494	20,525,381	37,318,875
Raw water rights obligation	3,602,238	-	3,602,238
BC Note obligation	671,554	1,510,539	2,182,093
Lease-right to use asset	-	121,845	121,845
Total Interest Expense	<u>\$ 131,161,860</u>	<u>\$ 140,129,194</u>	<u>\$ 271,291,054</u>

NOTE 13 – 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 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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 13 – 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, 2023 were as follows:

	Beginning Balance	Increase	Decrease	Ending Balance	Amount due Within One Year*
Water Fund	\$ 405,782,407	\$ -	\$ (5,686,745)	\$ 400,095,662	\$ 5,928,467
Sewage Disposal Fund	495,956,275	-	(6,950,466)	489,005,809	7,245,904
Total Business-type Activities	\$ 901,738,682	\$ -	\$ (12,637,211)	\$ 889,101,471	\$ 13,174,371

* The current portion of the Regional Systems leases payable represents the 12 monthly payments required from July 1, 2023 through June 30, 2024. Future revenues are intended to cover these payments.

As of June 30, 2023, aggregate requirements of the Regional Systems leases were as follows:

	Year Ended June 30	Principal	Interest	Total
Water Fund				
	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	6,717,048	15,782,952	22,500,000
	2028	7,002,565	15,497,435	22,500,000
	2029-2033	39,738,870	72,761,130	112,500,000
	2034-2038	48,933,801	63,566,199	112,500,000
	2039-2043	60,256,289	52,243,711	112,500,000
	2044-2048	74,198,617	38,301,383	112,500,000
	2049-2053	91,366,974	21,133,026	112,500,000
	2054-2056	53,329,394	2,920,606	56,250,000
Total Water Fund		\$ 400,095,662	\$ 331,154,338	\$ 731,250,000

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 13 – REGIONAL SYSTEMS LEASES PAYABLE AND RELATED PREPAID LEASE (cont.)

	Year Ended June 30	Principal	Interest	Total
Sewage Disposal Fund				
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		8,209,726	19,290,274	27,500,000
2028		8,558,691	18,941,309	27,500,000
2029-2033		48,569,730	88,930,270	137,500,000
2034-2038		59,807,979	77,692,021	137,500,000
2039-2043		73,646,575	63,853,425	137,500,000
2044-2048		90,687,199	46,812,801	137,500,000
2049-2053		111,670,746	25,829,254	137,500,000
2054-2056		65,180,369	3,569,631	68,750,000
Total Sewage Disposal Fund		489,005,809	404,744,191	893,750,000
Total Business-type Activities		\$ 889,101,471	\$ 735,898,529	\$ 1,625,000,000

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 is in the Sewage Disposal Fund.

NOTE 14 – OTHER LIABILITIES

Changes in other liabilities for the year ended June 30, 2023 were as follows:

	Beginning Balance	Increase	Decrease	Ending Balance	Due Within One Year
Water Fund					
Compensated absences	\$ 4,797,762	\$ 4,225,984	\$ (3,920,228)	\$ 5,103,518	\$ 3,464,850
Workers' compensation	213,300	448,142	(443,069)	218,373	143,373
Claims and judgements	500,000	85,000	(450,000)	135,000	135,000
Cash held for the benefit of DWSD budget stabilization	2,000,000	-	-	2,000,000	-
Total Water Fund	\$ 7,511,062	\$ 4,759,126	\$ (4,813,297)	\$ 7,456,891	\$ 3,743,223

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 14 – OTHER LIABILITIES (cont.)

	Beginning Balance	Increase	Decrease	Ending Balance	Due Within One Year
Sewage Disposal Fund					
Lease payable – right to use asset	\$ 4,258,178	\$ -	\$ (366,784)	\$ 3,891,394	\$ 390,070
Compensated absences	816,975	1,630,683	(1,669,106)	778,552	778,552
Claim and judgements	9,850,000	4,010,000	(450,000)	13,410,000	7,660,000
DWSD local system capital contribution from EFSD	-	31,724,639	-	31,724,639	16,611,000
Cash held for the benefit of DWSD budget stabilization	5,500,000	-	-	5,500,000	-
Total Sewage Disposal Fund	20,425,153	37,365,322	(2,485,890)	55,304,585	25,439,622
Total Business-type Activities	\$ 27,936,215	\$ 42,124,448	\$ (7,299,187)	\$ 62,761,476	\$ 29,182,845

LEASE PAYABLE – RIGHT TO USE ASSET

The Authority entered into a lease agreement for a warehouse to store inventory for operational needs which began 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				
2024		\$ 390,070	\$ 111,443	\$ 501,513
2025		414,719	99,404	514,123
2026		436,958	86,622	523,580
2027		462,398	73,181	535,579
2028		490,037	58,931	548,968
2029-2032		1,697,212	82,785	1,779,997
Total Sewage Disposal Fund		\$ 3,891,394	\$ 512,366	\$ 4,403,760

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

	Cost	Accumulated Amortization	Ending Book Value
Sewage Disposal Fund			
Warehouse	\$ 4,543,607	\$ (989,334)	\$ 3,554,273

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 14 – 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. Due to Covid, an additional Reserve PTO account was created in September 2020 to allow team members to set aside an additional 80 hours of their PTO balance to be used through September 30, 2022. In August 2022, a change was made allowing employees an option to elect a payout of all or a partial amount of this Reserve PTO balance by September 30, 2022. Any amounts not paid out will remain in the Reserve PTO account until September 30, 2023 at which point any unused remaining hours will expire. The accrued compensated absences on June 30, 2023 for PTO accruals are \$3,166,198 for the Water Fund and \$778,552 for the Sewage Disposal Fund which is current.

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, 2023 balance of the accrued compensated absences for the liability assumed on January 1, 2016 is approximately \$1,937,320 of which \$298,652 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 as well as the 401 (a) employer contribution.

WORKERS' COMPENSATION

Workers' compensation is discussed in Note 15 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 15 for discussion of risk of loss and insurance coverages.

DWSD LOCAL SYSTEM CAPITAL CONTRIBUTION FROM EFSD

The Authority is holding a DWSD local system contribution received from the Evergreen-Farmington Sanitary Drain Drainage District for specific DWSD local system construction projects which were identified in an agreement. These funds will be disbursed to DWSD as the project expenses are incurred.

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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 15 – 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	Physical damage 5% of insured value
Fiduciary	\$15,000,000	\$5,000
General Liability	\$10,000,000	\$1,000,000
Pollution Legal Liability	\$25,000,000	\$500,000
Property Damage	\$750,000,000	\$3,500,000 combined for all coverages
Public Officials and Employment Practices	\$25,000,000	\$500,000
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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 15 – 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. Although the liability is recorded in the Water Fund, the Sewage Disposal Fund's share of these costs are allocated through the Centralized and Administrative Services allocation.

	2023	2022
Unpaid claims, beginning of year	\$ 765,795	\$ 917,531
Incurred claims (including change in IBNR provisions)	9,661,534	10,510,451
Claims payments	(9,878,417)	(10,662,187)
Unpaid Claims, End of Year	\$ 548,912	\$ 765,795

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 14). Although the liability is recorded in the Water Fund, the Sewage Disposal Fund's share of these costs are allocated through the Centralized and Administrative Services allocation.

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

	2023	2022
Unpaid claims, beginning of year	\$ 213,300	\$ 330,817
Incurred claims (including change in IBNR provisions)	448,142	717,963
Claims payments	(443,069)	(835,480)
Unpaid Claims, End of Year	\$ 218,373	\$ 213,300

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 16 – 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 an employee’s base pay 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 \$5,999,361, which is net of forfeitures of \$113,314, for the year ended June 30, 2023. The Authority has accrued approximately \$83,000 of expense on the accrued payroll at June 30, 2023. At June 30, 2023, there were 1,231 plan members, of which 1,007 are active.

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, 2023 there are 24 participants in the plan.

The Authority has a Section 457 Deferred Compensation Plan which employees can make pre-tax or post-tax (Roth) contributions which are immediately 100% vested. At June 30, 2023 there were 1,194 plan members, of which 1,083 are active.

The Authority has a Roth IRA Plan which allows employees to make post-tax contributions which are immediately 100% vested.

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. Members can access their account for reimbursement of qualified medical expenses and payment of insurance premiums for their dependents when they separate from GLWA and reach age 60. The Authority recognized an expense \$2,127,738, which is net of forfeitures of \$52,776, for the year ended June 30, 2023. The Authority has accrued approximately \$28,000 of expense on the accrued payroll at June 30, 2023. Employee contributions were \$249,000 for the year ended June 30, 2023. At June 30, 2023, there were 1,799 plan members, of which 1,098 are active.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 17 – 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 "General Retirement System of the City of Detroit Financial Report with Supplemental Information" 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, 2022 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.

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

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 17 – NET PENSION LIABILITY (SPECIAL FUNDING SITUATION) (cont.)

During the Plan's fiscal year 2022, employer contributions were not actuarially determined, but are determined by the provisions of the POA. Included within contributions for fiscal year 2022 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 2023. 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, 2022. The total share for the DWSD is estimated to be \$0.7 million. GLWA's share of the 2024 estimated contribution will be \$0.5 million with approximately \$0.18 million allocated to the Water Fund and approximately \$0.32 million allocated to the Sewage Disposal Fund.

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, 2022, 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, 2021, which used updated procedures to roll forward the estimated liability to June 30, 2022. The actuarial valuation used the following actuarial assumptions applied to all periods included in the measurement.

Inflation	Not applicable
Salary increases	No inflation assumption or salary increases due to plan freeze as of June 30, 2014
Investment rate of return	6.75%, net of investment expense and including inflation

Note that the long-term assumed rate of return used for the purpose of the GASB Statement No. 67 valuations was determined in accordance with generally accepted accounting principles. This rate will change annually based on capital market expectations in consideration of the System's most recently approved asset mix. This should not be confused with the provisions in the Plan of Adjustment, which established a 6.75 percent assumed rate of return that does not change annually as it is set by the POA for the purpose of the various provisions within the plan; the Plan of Adjustment did not attempt to dictate the long-term rate of return to be used for accounting purposes.

The mortality table assumption was based on the PubG-2010(B) Below-Median General Retiree Table. The tables are projected to be fully generational, based on the two-dimensional, sex-distinct mortality scale MP-2021.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 17 – NET PENSION LIABILITY (SPECIAL FUNDING SITUATION) (cont.)

The actuarial assumptions, other than the investment rate of return, used in the June 30, 2021 valuation to calculate the total pension liability as of June 30, 2022 were based on the results of an actuarial experience study for the period from July 1, 2015 through June 30, 2020. The assumptions were first used in the June 30, 2021 actuarial valuation and assumption changes included mortality tables (change from the RP-2014 Blue Collar Annuitant Table), withdrawal rates, and disability rates.

Investment Rate of Return. 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 major asset class. These 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. Best estimates of the long-term expected real rate of return as of June 30, 2022 for each major asset class and the target allocations are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global equity	46.0%	5.02%
Global fixed income	33.0%	4.02%
Real estate	13.0%	3.73%
Diversifying strategies	8.0%	3.95%
	100.0%	

Single Discount Rate. A Single Discount Rate of 6.75%, net of investment expenses, was used to measure the total pension liability as of June 30, 2022. This Single Discount Rate was based on the expected rate of return on pension plan investments of 6.75% as directed by the System and approved by the System's Auditor. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions ceased as of June 30, 2014, and that employer contributions will be made at rates equal to those set by the final Plan of Adjustment through June 30, 2023 and contributions consistent with PERSIA and the intention to fully fund the System by 2053 as determined in the bankruptcy (POA). Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. 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, 2022, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date.

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.

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	\$ 168,530,590	\$ 301,616,255	\$ 470,146,845
Plan fiduciary net position	(145,884,785)	(261,087,453)	(406,972,238)
Authority's Net Pension Liability	\$ 22,645,805	\$ 40,528,802	\$ 63,174,607

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 17 – NET PENSION LIABILITY (SPECIAL FUNDING SITUATION) (cont.)

	<u>Total Pension Liability (a)</u>	<u>Plan Fiduciary Net Position (b)</u>	<u>Net Pension Liability (a) – (b)</u>
Water Fund			
Balances at June 30, 2022	\$ 183,593,989	\$ 160,214,509	\$ 23,379,480
Changes for the year:			
Interest	11,408,491	-	11,408,491
Difference between expected and actual experience	(43,813)	-	(43,813)
Changes in assumptions	(10,270,600)	-	(10,270,600)
Employer contributions	-	10,810,800	(10,810,800)
Net investment income	-	(9,347,846)	9,347,846
Benefit payments, including refunds of employee contributions	(16,157,477)	(16,157,477)	-
Other changes	-	364,799	(364,799)
Net changes	<u>(15,063,399)</u>	<u>(14,329,724)</u>	<u>(733,675)</u>
Balances at June 30, 2023	<u>\$ 168,530,590</u>	<u>\$ 145,884,785</u>	<u>\$ 22,645,805</u>
	<u>Total Pension Liability (a)</u>	<u>Plan Fiduciary Net Position (b)</u>	<u>Net Pension Liability (a) – (b)</u>
Sewage Disposal Fund			
Balances at June 30, 2022	\$ 328,574,957	\$ 286,733,110	\$ 41,841,847
Changes for the year:			
Interest	20,417,578	-	20,417,578
Difference between expected and actual experience	(78,411)	-	(78,411)
Changes in assumptions	(18,381,115)	-	(18,381,115)
Employer contributions	-	19,347,900	(19,347,900)
Net investment income	-	(16,729,676)	16,729,676
Benefit payments, including refunds of employee contributions	(28,916,754)	(28,916,754)	-
Other changes	-	652,873	(652,873)
Net changes	<u>(26,958,702)</u>	<u>(25,645,657)</u>	<u>(1,313,045)</u>
Balances at June 30, 2023	<u>\$ 301,616,255</u>	<u>\$ 261,087,453</u>	<u>\$ 40,528,802</u>

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 6.75%, as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is 1% lower (5.75%) or 1% higher (7.75%) than the current rate:

	<u>1% Decrease (5.75%)</u>	<u>Current Discount Rate (6.75%)</u>	<u>1% Increase (7.75%)</u>
Water Fund	\$ 27,724,756	\$ 22,645,805	\$ 18,269,024
Sewage Disposal Fund	49,618,513	40,528,802	32,695,753
Authority's Net Pension Liability	<u>\$ 77,343,269</u>	<u>\$ 63,174,607</u>	<u>\$ 50,964,777</u>

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 17 – 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, 2023, the Authority recognized pension income of \$7,443,572 and \$13,321,630 for the Water and Sewage Disposal Funds, respectively. At June 30, 2023, the Authority reported deferred outflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows (Inflows) of Resources
Water Fund			
Net difference between projected and actual earnings on pension plan investments	\$ 6,296,508	\$ -	\$ 6,296,508
Employer contributions to the plan subsequent to the measurement date	10,810,800	-	10,810,800
Total Water Fund	17,107,308	-	17,107,308
Sewage Disposal Fund			
Net difference between projected and actual earnings on pension plan investments	11,268,752	-	11,268,752
Employer contributions to the plan subsequent to the measurement date	19,347,900	-	19,347,900
Total Sewage Disposal Fund	30,616,652	-	30,616,652
Total Business-type Activities	\$ 47,723,960	\$ -	\$ 47,723,960

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, 2023. 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
2024	\$ 2,440,975	\$ 4,368,570	\$ 6,809,545
2025	1,087,832	1,946,874	3,034,706
2026	(1,152,274)	(2,062,204)	(3,214,478)
2027	3,919,975	7,015,512	10,935,487
Total	\$ 6,296,508	\$ 11,268,752	\$ 17,565,260

Payable to the Pension Plan. At June 30, 2023, the Authority did not have any outstanding contributions payable to the pension plan for the year then ended.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 18 – 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 for the Water Fund is anticipated to be approximately \$986.6 million with an 100% spend rate assumption through fiscal year 2028. The total cost for the Sewage Disposal Fund is anticipated to be approximately \$798.2 million with a 100% spend rate assumption through fiscal year 2028. 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, 2023 was approximately \$213 million for the Water Fund and \$272 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 13). The amount of capital improvements in progress related to the contract are estimated by OMIDD to be worth \$64.5 million for the Sewage Disposal Fund at June 30, 2023. 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.

SUBSCRIPTION-BASED INFORMATION TECHNOLOGY ARRANGEMENTS (SBITA)

The Authority has two SBITA's that are in the implementation phase. A summary of the commitments for each SBITA are detailed below:

NEXGEN is an enterprise asset management system subscription service. The contract is a \$1.7 million purchase for a duration of five years with one two-year renewal. The contract ends November 30, 2026 with a two-year renewal which would end November 30, 2028. The anticipated in-service date is expected during fiscal year 2025. There is a separate implementation contract for three years ending early in fiscal year 2025 for a not to exceed cost of \$4.6 million. The Authority's remaining commitment under this contract is \$3.4 million. Implementation costs incurred up to the date placed in service will be capitalized.

Workday is an enterprise resource planning system subscription service which is an integrated financial, HR, payroll and analytic system service. The contract is for eight years ending in fiscal year 2030. The cost for the SBITA for the eight-year period is \$5.3 million. The remaining commitment under this contract is \$4.3 million. The anticipated in-service date for HR and payroll is January 2024, and the financial system in July 2024. There are two separate implementation contracts that terminate in 2029 for a not to exceed cost of \$7.7 million. The Authority's remaining commitment under these contracts is \$4.5 million. Implementation costs incurred up to the date placed in service will be capitalized.

2021 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 24,000 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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 18 – COMMITMENTS AND CONTINGENCIES (cont.)

The Board hired an independent investigative team to review the rain events. In June 2022, the Independent Investigative Team reviewing the rain events of June and July 2021 presented its final report to the Great Lakes Water Authority (GLWA) Board of Directors. The report concluded that heavy and historic rainfalls exceeded the design capacity of the wastewater system, making surface flooding and basement backups inevitable. For the June 25/26 rain event, the report also stated that even if every piece of piping and equipment in the regional system worked in an ideal manner, basement backups and surface flooding would still have occurred in GLWA's system, or any other collection system designed to today's standard. This standard reflects a collection system designed to handle 1.7 inches of rain in one hour (with no rain before/no rain after) or 3.31 inches in 24 hours. On June 25, more than six inches was experienced in only half that time, which is double the maximum design standard for 24 hours.

In July 2022, GLWA announced that it is denying all claims submitted to the Authority related to the historic rain events that took place in the summer of 2021. Official notification was mailed to the claimants. This decision was based on the findings of the independent investigation and that under Michigan's Governmental Liability for Negligence Act, a public entity such as GLWA can only be liable for a sewage disposal system event (a basement backup) if a defect in its sewage disposal system was the substantial proximate cause (50 percent or more of the cause) of the event and property damage or physical injury.

While no claim under an individual lawsuit would have a material impact on GLWA's operations or revenues, in the aggregate, the claimed amounts under all such lawsuits could be material. As it relates to the June 25-26, 2021 rain event, the trial court dismissed many of the class action lawsuits against GLWA, finding no defect in the Sewer System. The plaintiffs have appealed the dismissal decision. As it relates to the July 16, 2021 rain event, GLWA filed a dispositive motion, which is pending before the Court.

The Authority received insurance payments of \$1 million during fiscal year 2022 and \$2.6 million in the current fiscal year for a total of \$3.6 million. These payment were net of the \$1 million deductible on the insurance policy. The Federal Emergency Management Agency (FEMA) has committed to reimburse the Authority for the \$1 million deductible, net of the GLWA 10% cost share. During the current fiscal year the Authority received \$0.4 million of FEMA funds toward the deductible cost. The Authority expects future additional costs for repairs and maintenance and debris removal from the interceptors as a result of the heavy rains. The amount is not able to be estimated at this time. Claims will be submitted to the insurance company and FEMA as these costs are incurred.

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, 2023.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 18 – COMMITMENTS AND CONTINGENCIES (cont.)

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, 2023.

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 expired on October 1, 2022. A new permit application was submitted in March 2022. The Authority will continue to operate under the old permit until the new permit is issued.

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 \$135,000 for the Water Fund and \$13,410,000 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.

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2023

NOTE 19 – NET INVESTMENT IN CAPITAL ASSETS

The composition of net investment in capital assets as of June 30, 2023 was as follows:

	Water Fund	Sewage Disposal Fund	Total Business-type Activities
Capital Assets			
Nondepreciable/nonamortizable	\$ 670,557,112	\$ 418,201,364	\$ 1,088,758,476
Depreciated/amortized – net	1,330,639,811	1,989,243,893	3,319,883,704
Total Capital Assets	2,001,196,923	2,407,445,257	4,408,642,180
Less: Related Debt			
Total bonds and loans, net (Note 12)	2,654,538,306	2,986,680,987	5,641,219,293
Less outstanding bonds used for:			
SWAP termination agreements	(167,261,744)	(213,516,698)	(380,778,442)
Unspent bond proceeds	(108,161,275)	(143,130,085)	(251,291,360)
To fund reserves	(3,030,378)	-	(3,030,378)
Obligation receivable-local system share of debt (Note 8)	(565,429,087)	(370,289,836)	(935,718,923)
Deferred charge on refunding	(39,316,288)	(94,632,191)	(133,948,479)
Deferred gain on refunding	44,182,654	37,087,199	81,269,853
Capital portion of regional system lease	291,549,708	339,516,733	631,066,441
Lease obligation-raw water rights (Note 12)	92,515,774	-	92,515,774
Lease obligation-right to use asset (Note 14)	-	3,891,394	3,891,394
Total Related Debt	2,199,587,670	2,545,607,503	4,745,195,173
Net Investment in Capital Assets	\$ (198,390,747)	\$ (138,162,246)	\$ (336,552,993)

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 13.

NOTE 20 – SUBSEQUENT EVENTS

JUNIOR LIEN REVENUE BONDS

On July 17, 2023, Water Supply System Revenue Bonds, Series 2023 SRF-1, were issued for \$48.2 million to fund regional water system improvements. The series ordinance authorizing issuance of these revenue bonds (SRF Junior Lien) in an aggregate amount not to exceed \$71 million (Ordinance No. 2023-02) was approved by the GLWA Board in May 2023.

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

GREAT LAKES WATER AUTHORITY

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2023

NOTE 20 – SUBSEQUENT EVENTS (cont.)

HIGHLAND PARK AGREEMENT

On October 25, 2023, GLWA's Board of Directors approved a Term Sheet between the State of Michigan (SOM), City of Highland Park, and GLWA which provides an outline for the resolution of their mutual differences. Highland Park's unpaid water and sewer disposal charges date back many years and have been recognized as a reduction to revenue in the estimate of uncollectible accounts over the years. The SOM will pay for service work that the Department of Environment, Great Lakes and Energy (EGLE) determines necessary to decrease the water loss the HP water distribution system is experiencing. The SOM will also pay and EGLE will oversee the installation of meters for both the water and sewer systems at the connection points to the GLWA system. In order to provide some relief to the communities the Authority serves, who have been burdened by these uncollectible amounts from HP, the SOM will provide \$5 million for water infrastructure improvements and \$25 million for sewer infrastructure improvements to the regional system.

RATING AGENCY UPGRADES

In October 2023, S&P Global Ratings affirmed the Authority's senior lien water and sewage disposal systems rating of AA- and its second lien water system rating of A+. The outlook remained stable. Moody's Investors Service upgraded the Authority's water system and sewage disposal system senior lien ratings to Aa3 from A1, and its second lien ratings to A1 from A2. The outlook was moved to stable from positive for both. Fitch Ratings affirmed the Authority's ratings for its water system for senior lien bonds of A+ and second lien bonds of A. The water system outlook remained stable. Fitch Ratings upgraded the sewage disposal system senior lien bonds to AA- from A+, and its second lien bonds to A+ from A. The outlook remained positive for the sewage disposal system.

WATER BOND REFUNDING AND NEW MONEY, SEWER BOND REFUNDING AND SEWER NEW MONEY BOND TRANSACTION

On December 5, 2023, the Authority issued \$215,745,000 of Water Supply System Revenue and Revenue Refunding Bonds (\$148,535,000 in new money and \$67,210,000 in refunding bonds) and \$297,060,000 of Sewage Disposal System Revenue and Revenue Refunding Bonds (\$96,860,000 in new money and \$200,200,000 in refunding bonds). The net present value savings from the refunding transaction for the water fund was \$7.9 million and the sewage disposal fund was \$20.9 million.

REQUIRED SUPPLEMENTARY INFORMATION

GREAT LAKES WATER AUTHORITY

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							
	2023	2022	2021	2020	2019	2018	2017	2016
Measurement Date	2022*	2021*	2020*	2019*	2018*	2017*	2016*	2015**
Share of Total Pension Liability								
Interest	\$ 31,826,069	\$ 34,312,239	\$ 36,284,099	\$ 36,700,388	\$ 36,577,126	\$ 37,829,066	\$ 40,381,626	\$ 51,393,411
Differences between expected and actual experience	(122,224)	(9,204,321)	(10,265,139)	3,462,000	(320,610)	2,369,183	(5,063,923)	(427,134)
Changes in assumptions	(28,651,715)	23,270,230	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	(45,074,231)	(44,436,536)	(45,098,368)	(46,507,916)	(47,396,240)	(51,081,380)	(69,639,576)	(54,293,644)
Net change	(42,022,101)	3,941,612	(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	512,168,946	508,227,334	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	470,146,845	512,168,946	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	30,158,700	30,158,700	30,150,889
Employee contributions	-	-	-	-	-	-	-	130,951
Net investment income (loss)	(26,077,522)	95,985,249	(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	(45,074,231)	(44,436,536)	(45,098,368)	(46,507,916)	(47,396,240)	(51,081,380)	(69,639,576)	(54,293,644)
Administrative expense	-	-	-	-	-	-	-	(21,294)
Other changes	1,017,672	1,318,070	1,182,142	(119,469)	1,386,027	1,494,049	252,263	27,758,558
Net change	(39,975,381)	83,025,483	(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	446,947,619	363,922,136	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	406,972,238	446,947,619	363,922,136	381,293,754	388,568,006	374,072,347	354,688,734	395,229,321
SHARE OF NET PENSION LIABILITY	\$ 63,174,607	\$ 65,221,327	\$ 144,305,198	\$ 132,909,889	\$ 131,981,165	\$ 178,961,907	\$ 194,075,547	\$ 170,229,438
Nonemployer contributing entity share of collective net pension liability	6.9%	7.4%	13.1%	14.2%	15.9%	19.0%	19.5%	20.6%
Plan fiduciary net position as a percentage of total pension liability	86.6%	87.3%	71.6%	74.2%	74.6%	67.6%	64.6%	69.9%

* As described in Notes 1 and 17 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.

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

The accompanying notes to required supplementary information are an integral part of these financial statements

GREAT LAKES WATER AUTHORITY

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							
	2023	2022	2021	2020	2019	2018	2017	2016
Measurement Date	2022*	2021*	2020*	2019*	2018*	2017*	2016*	2015**
Share of Total Pension Liability								
Interest	\$ 11,408,491	\$ 12,299,693	\$ 13,006,533	\$ 13,155,758	\$ 13,111,573	\$ 13,560,348	\$ 14,475,348	\$ 18,422,673
Differences between expected and actual experience	(43,813)	(3,299,415)	(3,679,680)	1,241,001	(114,927)	849,266	(1,815,233)	(153,112)
Changes in assumptions	(10,270,600)	8,341,534	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	(16,157,477)	(15,928,886)	(16,166,129)	(16,671,401)	(16,989,833)	(18,310,822)	(24,963,262)	(19,462,302)
Net change	(15,063,399)	1,412,926	(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	183,593,989	182,181,063	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	168,530,590	183,593,989	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	10,810,800	10,810,800	10,808,000
Employee contributions	-	-	-	-	-	-	-	46,941
Net investment income (loss)	(9,347,846)	34,407,230	(1,295,521)	3,295,871	10,878,360	13,912,782	(470,295)	6,194,355
Benefit payments, including refunds of employee contributions	(16,157,477)	(15,928,886)	(16,166,129)	(16,671,401)	(16,989,833)	(18,310,822)	(24,963,262)	(19,462,302)
Administrative expense	-	-	-	-	-	-	-	(7,633)
Other changes	364,799	472,481	423,755	(42,826)	496,841	535,562	90,427	9,950,436
Net change	(14,329,724)	29,761,625	(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	160,214,509	130,452,884	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	145,884,785	160,214,509	130,452,884	136,679,979	139,287,535	134,091,367	127,143,045	141,675,375
SHARE OF NET PENSION LIABILITY	\$ 22,645,805	\$ 23,379,480	\$ 51,728,179	\$ 47,643,374	\$ 47,310,460	\$ 64,151,352	\$ 69,569,044	\$ 61,021,079
Nonemployer contributing entity share of collective net pension liability - Water Fund	2.5%	2.6%	4.7%	5.1%	5.7%	6.8%	7.0%	7.4%
Plan fiduciary net position as a percentage of total pension liability	86.6%	87.3%	71.6%	74.2%	74.6%	67.6%	64.6%	69.9%

* As described in Notes 1 and 17 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.

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

The accompanying notes to required supplementary information are an integral part of these financial statements.

GREAT LAKES WATER AUTHORITY

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							
	2023	2022	2021	2020	2019	2018	2017	2016
Measurement Date	2022*	2021*	2020*	2019*	2018*	2017*	2016*	2015**
Share of Total Pension Liability								
Interest	\$ 20,417,578	\$ 22,012,546	\$ 23,277,566	\$ 23,544,630	\$ 23,465,553	\$ 24,268,718	\$ 25,906,278	\$ 32,970,738
Differences between expected and actual experience	(78,411)	(5,904,906)	(6,585,459)	2,220,999	(205,683)	1,519,917	(3,248,690)	(274,022)
Changes in assumptions	(18,381,115)	14,928,696	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	(28,916,754)	(28,507,650)	(28,932,239)	(29,836,515)	(30,406,407)	(32,770,558)	(44,676,314)	(34,831,342)
Net change	(26,958,702)	2,528,686	(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	328,574,957	326,046,271	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	301,616,255	328,574,957	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	19,347,900	19,347,900	19,342,889
Employee contributions	-	-	-	-	-	-	-	84,010
Net investment income (loss)	(16,729,676)	61,578,019	(2,318,571)	5,898,562	19,468,812	24,899,462	(841,679)	11,085,930
Benefit payments, including refunds of employee contributions	(28,916,754)	(28,507,650)	(28,932,239)	(29,836,515)	(30,406,407)	(32,770,558)	(44,676,314)	(34,831,342)
Administrative expense	-	-	-	-	-	-	-	(13,661)
Other changes	652,873	845,589	758,387	(76,643)	889,186	958,487	161,836	17,808,122
Net change	(25,645,657)	53,263,858	(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	286,733,110	233,469,252	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	261,087,453	286,733,110	233,469,252	244,613,775	249,280,471	239,980,980	227,545,689	253,553,946
SHARE OF NET PENSION LIABILITY	\$ 40,528,802	\$ 41,841,847	\$ 92,577,019	\$ 85,266,515	\$ 84,670,705	\$ 114,810,555	\$ 124,506,503	\$ 109,208,359
Nonemployer contributing entity share of collective net pension liability - Sewage Disposal Fund								
	4.4%	4.7%	8.4%	9.1%	10.2%	12.2%	12.5%	13.2%
Plan fiduciary net position as a percentage of total pension liability								
	86.6%	87.3%	71.6%	74.2%	74.6%	67.6%	64.6%	69.9%

* As described in Notes 1 and 17 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.

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

The accompanying notes to required supplementary information are an integral part of these financial statements.

GREAT LAKES WATER AUTHORITY

REQUIRED SUPPLEMENTARY INFORMATION

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

	Fiscal Year							
	2023*	2022*	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	\$ 30,158,700	\$ 30,158,700
Actual contribution	<u>30,158,700</u>	<u>30,158,700</u>	<u>30,158,700</u>	<u>30,158,700</u>	<u>30,158,700</u>	<u>30,158,700</u>	<u>30,158,700</u>	<u>30,158,700</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Water Fund								
Contractually required contribution**	\$ 10,810,800	\$ 10,810,800	\$ 10,810,800	\$ 10,810,800	\$ 10,810,800	\$ 10,810,800	\$ 10,810,800	\$ 10,810,800
Actual contribution	<u>10,810,800</u>	<u>10,810,800</u>	<u>10,810,800</u>	<u>10,810,800</u>	<u>10,810,800</u>	<u>10,810,800</u>	<u>10,810,800</u>	<u>10,810,800</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Sewage Disposal Fund								
Contractually required contribution**	\$ 19,347,900	\$ 19,347,900	\$ 19,347,900	\$ 19,347,900	\$ 19,347,900	\$ 19,347,900	\$ 19,347,900	\$ 19,347,900
Actual contribution	<u>19,347,900</u>	<u>19,347,900</u>	<u>19,347,900</u>	<u>19,347,900</u>	<u>19,347,900</u>	<u>19,347,900</u>	<u>19,347,900</u>	<u>19,347,900</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

* As described in Notes 1 and 17 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.

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

The accompanying notes to required supplementary information are an integral part of these financial statements.

GREAT LAKES WATER AUTHORITY

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, 2023

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.

In 2021, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.06 percent to 6.50 percent.

In 2022, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 6.50 percent to 6.75 percent and updating the mortality tables from the RP-2014 Blue Collar Annuitant Table to the Pub-2010 General Employee table, as well as updates to wage inflation, withdrawal, and disability rates.

Note: GLWA began operations on January 1, 2016. Accounting standards allow the presentation of as many years as are available until ten fiscal years are presented. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

SUPPLEMENTARY INFORMATION

GREAT LAKES WATER AUTHORITY

COMBINING SCHEDULE OF NET POSITION - WATER FUND

As of June 30, 2023

	Water Operations Fund	Water Improvement and Extension Fund	Water Construction Fund	Total Water Fund
Assets				
Current Assets				
Cash and cash equivalents	\$ 105,735,172	\$ 116,890,378	\$ -	\$ 222,625,550
Restricted cash and cash equivalents	90,024,353	-	37,655,217	127,679,570
Restricted cash for the benefit of DWSD	17,474,699	-	-	17,474,699
Investments	19,433,257	1,648,515	-	21,081,772
Restricted investments	9,975,144	-	-	9,975,144
Receivables				
Billed	55,359,908	-	-	55,359,908
Unbilled	33,527,694	-	-	33,527,694
Other	286,079	-	-	286,079
Allowance for doubtful accounts	(16,225,907)	-	-	(16,225,907)
Due from other governments	5,692,565	93,000	-	5,785,565
Due from other funds	-	1,001,087	31,667	1,032,754
Due from other water funds	109,746	20,553,426	679,970	21,343,142
Contractual obligation receivable	20,608,286	-	-	20,608,286
Prepaid items and other assets	10,793,138	1,948	-	10,795,086
Total Current Assets	<u>352,794,134</u>	<u>140,188,354</u>	<u>38,366,854</u>	<u>531,349,342</u>
Noncurrent Assets				
Restricted cash and cash equivalents	7,280,283	-	89,199,882	96,480,165
Restricted investments	3,040,772	-	18,961,394	22,002,166
Contractual obligation receivable	544,820,801	-	-	544,820,801
Prepaid lease	11,250,000	-	-	11,250,000
Capital assets				
Nondepreciable/nonamortizable	670,557,112	-	-	670,557,112
Depreciated/amortized, net	1,330,639,811	-	-	1,330,639,811
Prepaid insurance on debt	5,995,322	-	-	5,995,322
Total noncurrent assets	<u>2,573,584,101</u>	<u>-</u>	<u>108,161,276</u>	<u>2,681,745,377</u>
Total Assets	<u>2,926,378,235</u>	<u>140,188,354</u>	<u>146,528,130</u>	<u>3,213,094,719</u>
Deferred outflows of resources				
Deferred charge on refunding	39,316,288	-	-	39,316,288
Deferred pension amounts	17,107,308	-	-	17,107,308
Total Deferred Outflows of Resources	<u>56,423,596</u>	<u>-</u>	<u>-</u>	<u>56,423,596</u>

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

	Water Operations Fund	Water Improvement and Extension Fund	Water Construction Fund	Total Water Fund
Liabilities				
Current Liabilities				
Accounts and contracts payable	\$ 21,428,232	\$ 1,123,855	\$ 37,655,217	\$ 60,207,304
Accrued salaries, wages and benefits	1,757,758	-	-	1,757,758
Accrued liabilities	23,477,888	1,633,328	-	25,111,216
Due to other governments	3,124,058	-	-	3,124,058
Due to other funds	226,996	-	1,987,718	2,214,714
Due to other water funds	20,553,426	679,970	109,746	21,343,142
Interest payable	41,789,634	-	-	41,789,634
Current portion of:				
Revenue bonds and loans	62,332,082	-	-	62,332,082
Raw water rights obligation	2,963,619	-	-	2,963,619
BC Note obligation	214,151	-	-	214,151
Regional system lease	5,928,467	-	-	5,928,467
Other liabilities	3,743,223	-	-	3,743,223
Total Current Liabilities	187,539,534	3,437,153	39,752,681	230,729,368
Noncurrent Liabilities				
Revenue bonds and loans	2,592,206,224	-	-	2,592,206,224
Raw water rights obligation	89,552,155	-	-	89,552,155
BC Note obligation	16,124,188	-	-	16,124,188
Regional system lease	394,167,195	-	-	394,167,195
Other liabilities	3,713,668	-	-	3,713,668
Net pension liability	22,645,805	-	-	22,645,805
Total Noncurrent Liabilities	3,118,409,235	-	-	3,118,409,235
Total Liabilities	3,305,948,769	3,437,153	39,752,681	3,349,138,603
Deferred Inflows of Resources				
Deferred gain on refunding	44,182,654	-	-	44,182,654
Deferred amounts for swap terminations	56,712	-	-	56,712
Total Deferred Inflows of Resources	44,239,366	-	-	44,239,366
Net Position (Deficit)				
Net investment in capital assets	(305,166,196)	-	106,775,449	(198,390,747)
Restricted for debt service	56,139,482	-	-	56,139,482
Restricted for payment assistance program	2,289,905	-	-	2,289,905
Unrestricted	(120,649,495)	136,751,201	-	16,101,706
TOTAL NET POSITION	\$ (367,386,304)	\$ 136,751,201	\$ 106,775,449	\$ (123,859,654)

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

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GREAT LAKES WATER AUTHORITY

COMBINING SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION - WATER FUND

For the Year Ended June 30, 2023

	Water Operations Fund	Water Improvement and Extension Fund	Water Construction Fund	Total Water Fund
Operating Revenues				
Wholesale customer charges	\$ 340,593,806	\$ -	\$ -	\$ 340,593,806
Local system charges	22,834,300	-	-	22,834,300
Other revenues	350,991	-	-	350,991
Total Operating Revenues	363,779,097	-	-	363,779,097
Operating Expenses				
Operating expenses before depreciation and amortization				
Personnel	48,855,342	-	-	48,855,342
Contractual services	51,025,400	1,791,787	-	52,817,187
Utilities	33,436,545	-	-	33,436,545
Chemicals	12,689,666	-	-	12,689,666
Supplies and other expenses	11,926,150	-	-	11,926,150
Capital program allocation	(1,172,302)	-	-	(1,172,302)
Intergovernmental reimbursements	(2,785,190)	(600,350)	-	(3,385,540)
Total operating expenses before depreciation and amortization	153,975,611	1,191,437	-	155,167,048
Depreciation	126,485,762	-	-	126,485,762
Amortization of intangible assets	3,566,664	-	-	3,566,664
Total Operating Expenses	284,028,037	1,191,437	-	285,219,474
Operating Income (Loss)	79,751,060	(1,191,437)	-	78,559,623
Nonoperating Revenues (Expenses)				
Earnings on investments	7,326,654	3,218,195	6,179,636	16,724,485
Interest on obligations receivable	24,662,083	-	-	24,662,083
Interest expense	(131,161,860)	-	-	(131,161,860)
Amortization of debt related items and cost of issuance	14,577,852	-	-	14,577,852
Legacy pension recovery	7,443,572	-	-	7,443,572
Water Residential Assistance Program	(5,023,436)	-	-	(5,023,436)
Other	526,317	72	-	526,389
Discontinued capital projects	(20,902,626)	-	-	(20,902,626)
Capital outlay	199,617,587	(6,405,255)	(193,212,332)	-
Total Nonoperating Revenues (Expenses)	97,066,143	(3,186,988)	(187,032,696)	(93,153,541)
Income (Loss) Before Transfers	176,817,203	(4,378,425)	(187,032,696)	(14,593,918)
Transfer in	8,210,635	47,166,122	316,152,254	371,529,011
Transfer out	(340,278,651)	(4,292,361)	(26,957,999)	(371,529,011)
Change in Net Position	(155,250,813)	38,495,336	102,161,559	(14,593,918)
NET POSITION (DEFICIT), Beginning of Year	(212,135,491)	98,255,865	4,613,890	(109,265,736)
NET POSITION (DEFICIT), END OF YEAR	\$ (367,386,304)	\$ 136,751,201	\$ 106,775,449	\$ (123,859,654)

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.

GREAT LAKES WATER AUTHORITY

COMBINING SCHEDULE OF NET POSITION - SEWAGE DISPOSAL FUND

As of June 30, 2023

	Sewer Operations Fund	Sewer Improvement and Extension Fund	Sewer Construction Fund	Total Sewage Disposal Fund
Assets				
Current Assets				
Cash and cash equivalents	\$ 146,232,552	\$ 113,877,546	\$ -	\$ 260,110,098
Restricted cash and cash equivalents	106,715,859	229,095	30,153,418	137,098,372
Restricted cash for the benefit of DWSD	24,989,273	-	-	24,989,273
Investments	30,472,598	11,686,925	-	42,159,523
Restricted investments	33,698,337	-	-	33,698,337
Receivables:				
Billed	55,950,458	-	-	55,950,458
Unbilled	24,240,500	-	-	24,240,500
Other	115,479	-	-	115,479
Allowance for doubtful accounts	(42,620,781)	-	-	(42,620,781)
Due from other governments	5,936,441	159,276	-	6,095,717
Due from other funds	-	46,996	2,167,718	2,214,714
Due from other sewage disposal funds	195,035	406,782	142,549	744,366
Contractual obligation receivable	16,060,725	-	-	16,060,725
Prepaid items and other assets	5,433,198	1,476	243,931	5,678,605
Inventories	10,649,496	-	-	10,649,496
Total Current Assets	418,069,170	126,408,096	32,707,616	577,184,882
Noncurrent assets				
Restricted cash and cash equivalents	26,908,700	-	39,573,398	66,482,098
Restricted investments	8,765,882	-	103,556,687	112,322,569
Contractual obligation receivable	354,229,111	-	-	354,229,111
Prepaid lease	13,750,000	-	-	13,750,000
Capital assets				
Nondepreciable/nonamortizable	418,201,364	-	-	418,201,364
Depreciated/amortized, net	1,989,243,893	-	-	1,989,243,893
Prepaid insurance on debt	9,147,648	-	-	9,147,648
Total Noncurrent Assets	2,820,246,598	-	143,130,085	2,963,376,683
Total Assets	3,238,315,768	126,408,096	175,837,701	3,540,561,565
Deferred Outflows of Resources				
Deferred charge on refunding	94,632,191	-	-	94,632,191
Deferred pension amounts	30,616,652	-	-	30,616,652
Total Deferred Outflows of Resources	125,248,843	-	-	125,248,843

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

	Sewer Operations Fund	Sewer Improvement and Extension Fund	Sewer Construction Fund	Total Sewage Disposal Fund
Liabilities				
Current Liabilities				
Accounts and contracts payable	\$ 20,583,264	\$ 2,364,512	\$ 30,153,418	\$ 53,101,194
Accrued salaries, wages and benefits	305,601	-	-	305,601
Accrued liabilities	28,840,076	-	-	28,840,076
Due to other governments	3,750,000	-	-	3,750,000
Due to other funds	-	1,032,754	-	1,032,754
Due to other sewage disposal funds	406,782	142,549	195,035	744,366
Interest payable	40,400,733	-	-	40,400,733
Current portion of:				
Revenue bonds and loans	87,393,258	-	-	87,393,258
BC Note obligation	481,694	-	-	481,694
Regional system lease	7,245,904	-	-	7,245,904
Other liabilities	25,439,622	-	-	25,439,622
Total Current Liabilities	<u>214,846,934</u>	<u>3,539,815</u>	<u>30,348,453</u>	<u>248,735,202</u>
Noncurrent Liabilities				
Revenue bonds and loans	2,899,287,729	-	-	2,899,287,729
BC Note obligation	36,268,418	-	-	36,268,418
Regional system lease	481,759,905	-	-	481,759,905
Other liabilities	29,864,963	-	-	29,864,963
Net pension liability	40,528,802	-	-	40,528,802
Total Noncurrent Liabilities	<u>3,487,709,817</u>	<u>-</u>	<u>-</u>	<u>3,487,709,817</u>
Total Liabilities	<u>3,702,556,751</u>	<u>3,539,815</u>	<u>30,348,453</u>	<u>3,736,445,019</u>
Deferred Inflows of Resources				
Deferred gain on refunding	37,087,199	-	-	37,087,199
Deferred amounts for swap terminations	377	-	-	377
Total Deferred Inflows of Resources	<u>37,087,576</u>	<u>-</u>	<u>-</u>	<u>37,087,576</u>
Net Position (Deficit)				
Net investment in capital assets	(283,651,494)	-	145,489,248	(138,162,246)
Restricted for construction	2,180,985	-	-	2,180,985
Restricted for debt service	91,296,778	-	-	91,296,778
Restricted for payment assistance program	2,362,658	-	-	2,362,658
Unrestricted	(188,268,643)	122,868,281	-	(65,400,362)
TOTAL NET POSITION	<u>\$ (376,079,716)</u>	<u>\$ 122,868,281</u>	<u>\$ 145,489,248</u>	<u>\$ (107,722,187)</u>

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

GREAT LAKES WATER AUTHORITY

COMBINING SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION - SEWAGE DISPOSAL FUND
For the Year Ended June 30, 2023

	Sewer Operations Fund	Sewer Improvement and Extension Fund	Sewer Construction Fund	Total Sewage Disposal Fund
Operating Revenues				
Wholesale customer charges	\$ 275,917,502	\$ -	\$ -	\$ 275,917,502
Local system charges	191,042,200	-	-	191,042,200
Industrial waste charges	8,393,103	-	-	8,393,103
Pollutant surcharges	4,894,567	-	-	4,894,567
Other revenues	1,660,020	-	-	1,660,020
Total Operating Revenues	481,907,392	-	-	481,907,392
Operating Expenses				
Operating expenses before depreciation and amortization				
Personnel	65,952,676	-	-	65,952,676
Contractual services	58,677,847	5,451,939	-	64,129,786
Utilities	43,839,991	-	-	43,839,991
Chemicals	17,852,397	-	-	17,852,397
Supplies and other expenses	22,645,561	-	-	22,645,561
Capital program allocation	(1,017,340)	-	-	(1,017,340)
Intergovernmental reimbursements	(1,462,622)	(284,323)	-	(1,746,945)
Total operating expenses before depreciation and amortization	206,488,510	5,167,616	-	211,656,126
Depreciation	163,470,838	-	-	163,470,838
Amortization of intangible assets	439,704	-	-	439,704
Total Operating Expenses	370,399,052	5,167,616	-	375,566,668
Operating Income (Loss)	111,508,340	(5,167,616)	-	106,340,724
Nonoperating Revenues (Expenses)				
Earnings on investments	10,560,274	3,267,913	7,049,158	20,877,345
Interest on shortfall and obligations receivable	16,397,278	-	-	16,397,278
Interest expense	(140,129,194)	-	-	(140,129,194)
Amortization of debt related items and cost of issuance	(10,579,542)	-	-	(10,579,542)
Legacy pension recovery	13,321,630	-	-	13,321,630
Water Residential Assistance Program	(7,319,076)	-	-	(7,319,076)
Other	998,864	47,075	180,000	1,225,939
Discontinued capital projects	-	-	-	-
Capital outlay	109,198,942	(7,170,586)	(102,028,356)	-
Total Nonoperating Revenues (Expenses)	(7,550,824)	(3,855,598)	(94,799,198)	(106,205,620)
Income (Loss) Before Transfers and Capital Contributions	103,957,516	(9,023,214)	(94,799,198)	135,104
Transfer in	5,022,649	33,748,293	244,707,659	283,478,601
Transfer out	(271,045,145)	(4,128,733)	(8,304,723)	(283,478,601)
Capital Contributions	2,176,000	-	-	2,176,000
Change in Net Position	(159,888,980)	20,596,346	141,603,738	2,311,104
NET POSITION (DEFICIT), Beginning of Year	(216,190,736)	102,271,935	3,885,510	(110,033,291)
NET POSITION (DEFICIT), END OF YEAR	\$ (376,079,716)	\$ 122,868,281	\$ 145,489,248	\$ (107,722,187)

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.

GREAT LAKES WATER AUTHORITY

SCHEDULE OF INTERFUND RECEIVABLES AND PAYABLES

For the Year Ended June 30, 2023

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, 2023 consisted of the following:

	Sewage Disposal Fund due to Water Fund			
	Sewer Operations Fund	Sewer Improvement and Extension Fund	Sewer Construction Fund	Total
Water Operations Fund	\$ -	\$ -	\$ -	\$ -
Water Improvement and Extension Fund	-	1,001,087	-	1,001,087
Water Construction Fund	-	31,667	-	31,667
TOTALS	\$ -	\$ 1,032,754	\$ -	\$ 1,032,754

	Water Fund due to Sewage Disposal Fund			
	Water Operations Fund	Water Improvement and Extension Fund	Water Construction Fund	Total
Sewer Operations	\$ -	\$ -	\$ -	\$ -
Sewer Improvement and Extension	46,996	-	-	46,996
Sewer Construction Fund	180,000	-	1,987,718	2,167,718
TOTALS	\$ 226,996	\$ -	\$ 1,987,718	\$ 2,214,714

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

GREAT LAKES WATER AUTHORITY

SCHEDULE OF OPERATING EXPENSES FOR WATER OPERATIONS FUND - BUDGET TO ACTUAL

For the Year Ended June 30, 2023

	Original Budget	Amended Budget	Administrative and Centralized Services Reclassification	Final Amended Budget	Actual	Variance Over (Under) Amended Budget	Percent Over (Under) Amended Budget
Operating Expenses							
Personnel	\$ 82,081,400	\$ 77,939,000	\$ (27,254,800)	\$ 50,684,200	\$ 48,855,342	\$ (1,828,858)	-3.61%
Contractual services	80,285,600	81,232,500	(32,718,700)	48,513,800	51,025,400	2,511,600	5.18%
Utilities	27,233,900	33,304,400	(173,600)	33,130,800	33,436,545	305,745	0.92%
Chemicals	6,721,100	12,189,500	-	12,189,500	12,689,666	500,166	4.10%
Supplies and other expenses	20,419,200	20,888,300	(7,705,800)	13,182,500	11,926,150	(1,256,350)	-9.53%
Capital program allocation	(2,946,700)	(1,161,200)	-	(1,161,200)	(1,172,302)	(11,102)	0.96%
Intergovernmental reimbursements	(2,476,400)	(1,042,300)	-	(1,042,300)	(2,785,190)	(1,742,890)	167.22%
Centralized services allocation	(53,238,900)	(49,748,300)	49,748,300	-	-	-	0.00%
Administrative services allocation	(17,616,200)	(18,025,800)	18,025,800	-	-	-	0.00%
Unallocated reserve	4,384,700	1,171,600	(273,400)	898,200	-	(898,200)	-100.00%
Total operating expenses before depreciation and amortization financial reporting basis	144,847,700	156,747,700	(352,200)	156,395,500	153,975,611	(2,419,889)	
SBITA [1]	-	-	352,200	352,200	352,159	(41)	0.00%
TOTAL OPERATING EXPENSES BUDGET BASIS	\$ 144,847,700	\$ 156,747,700	\$ -	\$ 156,747,700	\$ 154,327,770	\$ (2,419,930)	-1.54%

[1] The subscription based information technology arrangements (SBITA) costs are an expense for budget purposes. These costs are capitalized under GASB 96 for financial reporting purposes. See Note 2 in the Notes to Supplementary Information.

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 SEWER OPERATIONS FUND - BUDGET TO ACTUAL

For the Year Ended June 30, 2023

	Original Budget	Amended Budget	Administrative and Centralized Services Reclassification	Final Amended Budget	Actual	Variance Over (Under) Amended Budget	Percent Over (Under) Amended Budget
Operating Expenses							
Personnel	\$ 40,062,900	\$ 38,206,400	\$ 27,254,800	\$ 65,461,200	\$ 65,952,676	\$ 491,476	0.75%
Contractual services	24,293,600	25,392,500	32,718,700	58,111,200	58,677,847	566,647	0.98%
Utilities	23,773,500	41,317,300	173,600	41,490,900	43,839,991	2,349,091	5.66%
Chemicals	9,397,500	17,335,300	-	17,335,300	17,852,397	517,097	2.98%
Supplies and other expenses	14,492,600	15,274,300	6,511,900	21,786,200	22,645,561	859,361	3.94%
Capital program allocation	(1,429,500)	(974,100)	-	(974,100)	(1,017,340)	(43,240)	4.44%
Intergovernmental reimbursements	(448,600)	(528,500)	-	(528,500)	(1,462,622)	(934,122)	176.75%
Centralized services allocation	53,238,900	49,748,300	(49,748,300)	-	-	-	0.00%
Administrative services allocation	17,616,200	18,025,800	(18,025,800)	-	-	-	0.00%
Unallocated reserve	3,055,500	325,200	273,400	598,600	-	(598,600)	-100.00%
Total operating expenses before depreciation and amortization financial reporting basis	184,052,600	204,122,500	(841,700)	203,280,800	206,488,510	3,207,710	
SBITA [1]	-	-	352,200	352,200	352,159	(41)	0.00%
Warehouse lease [2]	-	-	489,500	489,500	489,546	46	0.01%
TOTAL OPERATING EXPENSES BUDGET BASIS	\$ 184,052,600	\$ 204,122,500	\$ -	\$ 204,122,500	\$ 207,330,215	\$ 3,207,715	1.57%

[1] The subscription based information technology arrangements (SBITA) costs are an expense for budget purposes. These costs are capitalized under GASB 96 for financial reporting purposes. See Note 2 in the Notes to Supplementary Information.

[2] The warehouse lease is an expense for budget purposes. For financial reporting it is accounted for under GASB 87. See Note 2 in the Notes to Supplementary Information.

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 SEWER OPERATIONS FUNDS - BUDGET TO ACTUAL For the Year Ended June 30, 2023

	Original Budget	Final Amended Budget	Actual	Variance Over (Under) Amended Budget	Percent Over (Under) Amended Budget
Operating Expenses					
Personnel	\$ 122,144,300	\$ 116,145,400	\$ 114,808,018	\$ (1,337,382)	-1.15%
Contractual services	104,579,200	106,625,000	109,703,247	3,078,247	2.89%
Utilities	51,007,400	74,621,700	77,276,536	2,654,836	3.56%
Chemicals	16,118,600	29,524,800	30,542,063	1,017,263	3.45%
Supplies and other expenses	34,911,800	34,968,700	34,571,711	(396,989)	-1.14%
Capital program allocation	(4,376,200)	(2,135,300)	(2,189,642)	(54,342)	2.54%
Intergovernmental reimbursements	(2,925,000)	(1,570,800)	(4,247,812)	(2,677,012)	170.42%
Centralized services allocation	-	-	-	-	0.00%
Administrative services allocation	-	-	-	-	0.00%
Unallocated reserve	7,440,200	1,496,800	-	(1,496,800)	-100.00%
Total operating expenses before depreciation and amortization financial reporting basis	328,900,300	359,676,300	360,464,121	787,821	
SBITA	-	704,400	704,318	(82)	0.00%
Warehouse lease	-	489,500	489,546	46	0.01%
TOTAL OPERATING EXPENSES BUDGET BASIS	\$ 328,900,300	\$ 360,870,200	\$ 361,657,985	\$ 787,785	0.22%

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

GREAT LAKES WATER AUTHORITY

SCHEDULE OF REVENUE REQUIREMENTS BUDGET TO ACTUAL - WATER OPERATIONS

For the Year Ended June 30, 2023

The Great Lakes Water Authority Board adopts a budget using a revenue requirements 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 budget, adjusted for amendments, for comparison with actual revenues, expenses, and other payments. Overall, Water Operations experienced a positive variance of approximately \$0.6 million.

	Adopted Budget	Amended Budget	Actual	Variance Over (Under) Amended Budget
Revenues				
Revenue from charges				
Suburban wholesale customers [1]	\$ 331,962,000	\$ 333,856,300	\$ 334,141,233	\$ 284,933
Local system charges	<u>22,985,900</u>	<u>22,834,300</u>	<u>22,834,300</u>	<u>-</u>
Total revenue from charges	<u>354,947,900</u>	<u>356,690,600</u>	<u>356,975,533</u>	<u>284,933</u>
Other revenue [2]	175,000	995,000	1,378,706	383,706
Investment earnings [3]				
Restricted			3,660,022	
Unrestricted			<u>5,501,592</u>	
Total Investment earnings	<u>948,700</u>	<u>9,670,200</u>	<u>9,161,614</u>	<u>(508,586)</u>
Total Revenues	<u>\$ 356,071,600</u>	<u>\$ 367,355,800</u>	<u>\$ 367,515,853</u>	<u>\$ 160,053</u>
Revenue Requirements				
Operations and maintenance [4]	144,847,700	156,747,700	154,327,770	(2,419,930)
General Retirement System legacy pension	6,048,000	6,048,000	6,048,000	-
Debt service	150,337,100	150,055,300	150,055,300	-
General Retirement System accelerated pension	6,268,300	6,268,300	6,268,300	-
Water Residential Assistance Program contribution	1,770,500	1,770,500	1,770,500	-
Extraordinary Repair & Replacement Reserve Fund	-	200,000	2,200,000	2,000,000
Regional system lease	22,500,000	22,500,000	22,500,000	-
Transfer to the Improvement & Extension Fund	<u>24,300,000</u>	<u>23,766,000</u>	<u>23,766,000</u>	<u>-</u>
Total Revenue Requirements	<u>\$ 356,071,600</u>	<u>\$ 367,355,800</u>	<u>\$ 366,935,870</u>	<u>\$ (419,930)</u>
Revenue Requirement Variance	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 579,983</u>	<u>\$ 579,983</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 \$6,452,573 of revenue which was credited for the KWA debt service which is a non-cash transaction that is the payment obligation 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 earnings on bond proceeds in the Construction Fund. As required by the Master Bond Ordinance, investment earnings on bond proceeds will remain in the Construction Fund.

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

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

GREAT LAKES WATER AUTHORITY
SCHEDULE OF REVENUE REQUIREMENTS
BUDGET TO ACTUAL - SEWAGE DISPOSAL OPERATIONS
For the Year Ended June 30, 2023

The Great Lakes Water Authority Board adopts a budget using a revenue requirements 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 budget, adjusted for amendments, for comparison with actual revenues, expenses, and other payments. Overall, Sewage Disposal Operations had a negative variance of approximately \$0.9 million.

	Adopted Budget	Amended Budget	Actual	Variance Over (Under) Amended Budget
Revenues				
Revenue from charges				
Suburban wholesale customers	\$ 275,403,500	\$ 274,907,200	\$ 275,917,502	\$ 1,010,302
Local system charges	191,042,200	191,042,200	191,042,200	-
Industrial waste control	8,420,000	8,420,000	8,393,103	(26,897)
Pollutant surcharges	4,950,800	4,950,800	4,894,567	(56,233)
Total revenue from charges	<u>479,816,500</u>	<u>479,320,200</u>	<u>480,247,372</u>	<u>927,172</u>
Other revenue [1]	400,000	2,355,000	4,901,316	2,546,316
Investment earnings [2]				
Restricted			4,102,394	
Unrestricted			8,395,898	
Total Investment earnings	<u>1,155,600</u>	<u>13,532,100</u>	<u>12,498,292</u>	<u>(1,033,808)</u>
Total Revenues	<u>\$ 481,372,100</u>	<u>\$ 495,207,300</u>	<u>\$ 497,646,980</u>	<u>\$ 2,439,680</u>
Revenue Requirements				
Operations and maintenance [3]	184,052,600	204,122,500	207,330,215	3,207,715
General Retirement System legacy pension	10,824,000	10,824,000	10,824,000	-
Debt service	205,638,100	212,509,100	212,669,100	160,000
General Retirement System accelerated pension	11,620,700	11,620,700	11,620,700	-
Water Residential Assistance Program contribution	2,394,200	2,394,200	2,394,200	-
Regional system lease	27,500,000	27,500,000	27,500,000	-
Transfer to the Improvement & Extension Fund	39,342,500	26,236,800	26,236,800	-
Total Revenue Requirements	<u>\$ 481,372,100</u>	<u>\$ 495,207,300</u>	<u>\$ 498,575,015</u>	<u>\$ 3,367,715</u>
Revenue Requirement Variance	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (928,035)</u>	<u>\$ (928,035)</u>

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

[2] Investment earnings excludes earnings on bond proceeds in the Construction Fund. As required by the Master Bond Ordinance, investment earnings on bond proceeds will remain in the Construction Fund.

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

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

GREAT LAKES WATER AUTHORITY

SCHEDULE OF REVENUE REQUIREMENTS TO STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION CROSSWALK For the Year Ended June 30, 2023

The Great Lakes Water Authority establishes a Revenue Requirements 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, BC Note obligation and Regional system lease (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.
- WRAP funds are expensed for budget purposes when they are set aside. For financial reporting purposes they are expensed when the service delivery partners provide statements of expenditures.
- Contributions to the Extraordinary Repair & Replacement Fund and 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.
- Payments for the warehouse lease and subscription based information technology arrangements (SBITA) are expensed for budget purposes. For financial reporting purposes the warehouse lease is recorded under GASB 87 and payments are treated as a reduction in the lease liability and interest expense (which is a nonoperating expense). The SBITA payments are recorded under GASB 96 and are treated as a prepaid subscription asset as the software is currently in the implemented phase.
- Depreciation and amortization are not a components of the budget basis while the accrual basis financial report treats these as an expense.

	Water Fund	Sewage Disposal Fund	Total Business- type Activities
Revenue Requirement Variance from Schedule of Revenue Requirements	\$ 579,983	\$ (928,035)	\$ (348,052)
Budgetary adjustments to financial reporting basis			
Pension delayed accounting election adjustments:			
Current year pension payments recorded as deferral	10,810,800	19,347,900	30,158,700
Prior year pension deferral accounted for in current year	7,443,572	13,321,630	20,765,202
Administrative fee prepaid adjustment	406,143	726,866	1,133,009
Debt service	64,622,809	111,094,949	175,717,758
BC Note obligation	203,942	458,757	662,699
Regional system lease	5,706,506	6,974,619	12,681,125
Water Residential Assistance Program (WRAP)	(3,252,936)	(4,924,876)	(8,177,812)
Extraordinary Repair & Replacement Fund transfers	2,200,000	-	2,200,000
Improvement & Extension Fund transfers	23,766,000	26,236,800	50,002,800
GASB 87 & GASB 96 adjustments	352,159	719,860	1,072,019
Nonbudgeted financial reporting adjustments			
Depreciation and amortization	(130,052,426)	(163,910,542)	(293,962,968)
Amortization - debt related	14,577,852	(10,579,542)	3,998,310
Improvement & Extension Fund operating expenses	(1,191,437)	(5,167,616)	(6,359,053)
Investment earnings on bond funds in Construction Fund	6,060,710	6,964,460	13,025,170
Investment earnings unrealized gain (loss)	1,502,165	1,414,597	2,916,762
Discontinued capital projects	(20,902,626)	-	(20,902,626)
Raw water rights obligation	2,850,335	-	2,850,335
Other nonoperating income (expenses)	(277,469)	(1,614,723)	(1,892,192)
Capital contribution	-	2,176,000	2,176,000
Change in Net Position per Statement of Revenues, Expenses and Changes in Net Position	\$ (14,593,918)	\$ 2,311,104	\$ (12,282,814)

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

GREAT LAKES WATER AUTHORITY

WATER IMPROVEMENT AND EXTENSION FUND - BUDGET TO ACTUAL

For the Year Ended June 30, 2023

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 I&E Fund experienced an increase of \$38.5 million in net position and a negative budget variance of approximately \$0.9 million.

	Adopted Budget	Amended Budget	Actual [4]	Variance Over (Under) Amended Budget
Inflows				
Transfers in from Water Operations Fund				
Revenue transfers	\$ 24,300,000	\$ 23,766,000	\$ 23,766,000	\$ -
Transfers in from Water Construction Fund				
Working capital adjustment [1]	-	23,039,700	23,039,725	25
Investment earnings [2]	-	2,768,700	1,942,739	(825,961)
Total Inflows	<u>24,300,000</u>	<u>49,574,400</u>	<u>48,748,464</u>	<u>(825,936)</u>
Outflows				
Capital spending other (net operating expenses)	-	3,503,400	1,191,437	(2,311,963)
Capital outlay	15,452,600	5,570,100	6,405,255	835,155
Transfers out to Water Operations Fund				
GASB 96 expenditures [3]	-	-	1,930,471	1,930,471
Investment earnings [2]	-	2,768,700	2,361,890	(406,810)
Transfer out to Water Construction Fund				
Revenue financed capital	28,735,400	-	-	-
Total Outflows	<u>44,188,000</u>	<u>11,842,200</u>	<u>11,889,053</u>	<u>46,853</u>
Net Increase (Decrease) - Budget Basis	<u>\$ (19,888,000)</u>	<u>\$ 37,732,200</u>	36,859,411	<u>\$ (872,789)</u>
Non-budgeted inflows (outflows)				
Unrealized net increase in fair value of investments			1,275,456	
Other			72	
Other transfers in			360,397	
Combining Schedule Water Improvement and Extension Fund Change in Net Position [4]			<u>\$ 38,495,336</u>	

[1] The I&E Fund provided working capital and funding of capital expenditures in prior years through revenue financed capital transfers to the Construction Fund. The remaining working capital funds were returned to the I&E Fund during the year.

[2] As required by the Master Bond Ordinance, investment earnings on I&E funds are transferred to the receiving fund on a monthly basis.

[3] The subscription based information technology arrangements (SBITA) costs are an expense for budget purposes. These costs are capitalized under GASB 96 for financial reporting purposes, therefore they are shown as a transfer out to the Water Operations Fund for this analysis. See Note 2 in the Notes to Supplementary Information.

[4] 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.

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

GREAT LAKES WATER AUTHORITY

SEWER IMPROVEMENT AND EXTENSION FUND - BUDGET TO ACTUAL

For the Year Ended June 30, 2023

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. The Sewer I&E Fund experienced an increase of \$20.6 million in net position and a positive budget variance of approximately \$0.5 million.

	<u>Adopted Budget</u>	<u>Amended Budget</u>	<u>Actual [4]</u>	<u>Variance Over (Under) Amended Budget</u>
Inflows				
Transfers in from Sewer Operations Fund				
Revenue transfers	\$ 39,342,500	\$ 26,236,800	\$ 26,236,800	\$ -
Transfers in from Sewer Construction Fund				
Working capital adjustment [1]	-	7,410,800	7,410,807	7
Other nonoperating revenue - grants	-	-	46,996	46,996
Investment earnings [2]	-	3,395,700	2,533,262	(862,438)
Total Inflows	<u>39,342,500</u>	<u>37,043,300</u>	<u>36,227,865</u>	<u>(815,435)</u>
Outflows				
Capital spending other (net operating expenses)	-	7,748,000	5,167,616	(2,580,384)
Capital outlay	18,447,100	6,630,700	7,170,586	539,886
Transfers out to Sewer Operations Fund				
GASB 96 expenditures [3]	-	-	1,622,671	1,622,671
Investment earnings [2]	-	3,395,700	2,506,062	(889,638)
Transfer out to Sewer Construction Fund				
Revenue financed capital	26,444,900	-	-	-
Total Outflows	<u>44,892,000</u>	<u>17,774,400</u>	<u>16,466,935</u>	<u>(1,307,465)</u>
Net Increase (Decrease) - Budget Basis	<u>\$ (5,549,500)</u>	<u>\$ 19,268,900</u>	19,760,930	<u>\$ 492,030</u>
Non-budgeted inflows (outflows)				
Unrealized net increase in fair value of investments			734,651	
Other			79	
Other transfers in			100,686	
Combining Schedule Sewer Improvement and Extension Fund Change in Net Position [4]			<u>\$ 20,596,346</u>	

[1] The I&E Fund provided working capital and funding of capital expenditures in prior years through revenue financed capital transfers to the Construction Fund. The remaining working capital funds were returned to the I&E Fund during the year.

[2] As required by the Master Bond Ordinance, investment earnings on I&E funds are transferred to the receiving fund on a monthly basis.

[3] The subscription based information technology arrangements (SBITA) costs are an expense for budget purposes. These costs are capitalized under GASB 96 for financial reporting purposes, therefore they are shown as a transfer out to the Sewer Operations Fund for this analysis. See Note 2 in the Notes to Supplementary Information.

[4] 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.

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

GREAT LAKES WATER AUTHORITY

WATER CONSTRUCTION FUND - BUDGET TO ACTUAL For the Year Ended June 30, 2023

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 Construction Fund had an increase of \$102.2 million in net position and a positive budget variance of approximately \$8.4 million.

	Adopted Budget	Amended Budget	Actual [4]	Variance Over (Under) Amended Budget
Inflows				
Transfers from Water Improvement & Extension Fund				
Revenue financed capital	\$ 28,735,400	\$ -	\$ -	\$ -
Transfers in from Water Operations Fund				
Bond proceeds	-	225,000,000	228,878,775	3,878,775
State revolving loans	54,992,000	95,000,000	87,088,198	(7,911,802)
Proceeds sale of asset [1]	-	185,300	185,281	(19)
Investment earnings [2]	128,800	4,565,800	6,179,231	1,613,431
Total Inflows	<u>83,856,200</u>	<u>324,751,100</u>	<u>322,331,485</u>	<u>(2,419,615)</u>
Outflows				
Capital projects	155,501,000	207,962,000	193,212,332	(14,749,668)
Transfers out to Water Operations Fund				
Investment earnings [2]	-	-	89,627	89,627
Bond cost of issuance	-	-	3,828,647	3,828,647
Transfers out to Water Improvement & Extension Fund				
Working capital adjustment [3]	-	23,039,700	23,039,725	25
Total Outflows	<u>155,501,000</u>	<u>231,001,700</u>	<u>220,170,331</u>	<u>(10,831,369)</u>
Net Increase (Decrease) - Budget Basis	<u>\$ -</u>	<u>\$ 23,039,700</u>	102,161,154	<u>\$ 8,411,754</u>
Non-budgeted inflows (outflows)				
Unrealized net increase in fair value of investments			405	
Combining Schedule Water Construction Fund Change in Net Position [4]			<u>\$ 102,161,559</u>	

[1] Proceeds from the sale of an asset that was purchased using bond funds.

[2] As required by the Master Bond Ordinance investment earnings on I&E funds are transferred to the receiving fund on a monthly basis. Any earnings on bond proceeds will remain in the Construction Fund.

[3] The I&E Fund provided working capital and funding of capital expenditures in prior years through revenue financed capital transfers to the Construction Fund. The remaining working capital funds were returned to the I&E Fund during the year.

[4] 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.

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

GREAT LAKES WATER AUTHORITY

SEWER CONSTRUCTION FUND - BUDGET TO ACTUAL

For the Year Ended June 30, 2023

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 Construction Fund had an increase of \$141.6 million in net position and a positive budget variance of approximately \$2.3 million.

	Adopted Budget	Amended Budget	Actual [4]	Variance Over (Under) Amended Budget
Inflows				
Transfers in from Sewer Improvement & Extension Fund				
Revenue financed capital	\$ 26,444,900	\$ -	\$ -	\$ -
Transfers in from Sewer Operations Fund				
Bond proceeds	-	225,000,000	218,550,892	(6,449,108)
Reserve release	-	-	7,303,668	7,303,668
State revolving loans	18,720,000	20,000,000	17,712,417	(2,287,583)
Contributed capital	-	2,176,000	-	(2,176,000)
Proceeds sale of asset [1]	-	1,140,700	1,140,682	(18)
Other nonoperating revenue - grants	-	-	180,000	180,000
Investment earnings [2]	86,200	4,803,800	7,220,881	2,417,081
Total Inflows	<u>45,251,100</u>	<u>253,120,500</u>	<u>252,108,540</u>	<u>(1,011,960)</u>
Outflows				
Capital projects	94,449,000	106,220,300	102,028,356	(4,191,944)
Transfers out to Sewer Operations Fund				
Investment earnings [2]	-	-	62,665	62,665
Bond cost of issuance	-	-	831,251	831,251
Transfers out to Sewer Improvement & Extension Fund				
Working capital adjustment [3]	-	7,410,800	7,410,807	7
Total Outflows	<u>94,449,000</u>	<u>113,631,100</u>	<u>110,333,079</u>	<u>(3,298,021)</u>
Net Increase (Decrease) - Budget Basis	<u>\$ (49,197,900)</u>	<u>\$ 139,489,400</u>	<u>141,775,461</u>	<u>\$ 2,286,061</u>
Non-budgeted inflows (outflows)				
Unrealized net decrease in fair value of investments			(171,723)	
Combining Schedule Sewer Construction Fund Change in Net Position [4]			<u>\$ 141,603,738</u>	

[1] Proceeds from the sale of an asset that was purchased using bond funds.

[2] As required by the Master Bond Ordinance investment earnings on I&E funds are transferred to the receiving fund on a monthly basis. Any earnings on bond proceeds will remain in the Construction Fund.

[3] The I&E Fund provided working capital and funding of capital expenditures in prior years through revenue financed capital transfers to the Construction Fund. The remaining working capital funds were returned to the I&E Fund during the year.

[4] 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.

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

GREAT LAKES WATER AUTHORITY

SCHEDULE OF DAYS CASH - LIQUIDITY

For the Fiscal Years Ended June

	2023	2022	2021	2020	2019	2018	2017	2016*
Water Fund								
Cash and investments - Unrestricted	\$ 243,707,322	\$ 238,690,879	\$ 353,308,385	\$ 394,440,814	\$ 347,204,928	\$ 317,089,746	\$ 267,335,558	\$ 167,292,572
Operating Expense								
Operating expense	\$ 285,219,474	\$ 264,578,659	\$ 250,476,297	\$ 263,282,730	\$ 263,959,730	\$ 254,602,752	\$ 245,868,861	\$ 120,841,204
Less: depreciation	(126,485,762)	(123,196,027)	(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)	(3,566,664)	(3,566,664)	(2,080,554)	-	-
Net Operating Expense	\$ 155,167,048	\$ 137,815,968	\$ 123,638,092	\$ 132,532,838	\$ 119,821,946	\$ 108,530,383	\$ 101,730,949	\$ 49,545,659
Operating Expense per Day (365 days)	\$ 425,115	\$ 377,578	\$ 338,734	\$ 363,104	\$ 328,279	\$ 297,344	\$ 278,715	\$ 273,733
Number of days cash	573	632	1,043	1,086	1,058	1,066	959	611
Sewage Disposal Fund								
Cash and investments - Unrestricted	\$ 302,269,621	\$ 294,173,630	\$ 323,972,718	\$ 287,464,920	\$ 236,057,128	\$ 208,563,268	\$ 205,179,312	\$ 188,063,375
Operating Expense								
Operating expense	\$ 375,566,668	\$ 345,372,010	\$ 328,983,415	\$ 329,870,427	\$ 342,585,175	\$ 363,629,987	\$ 336,946,731	\$ 170,401,050
Less: depreciation	(163,470,838)	(158,013,629)	(150,772,065)	(152,920,967)	(168,544,370)	(187,250,583)	(185,628,465)	(86,021,029)
Less: amortization of intangible asset	(439,704)	(439,704)	(109,926)	-	-	-	-	-
Net Operating Expense	\$ 211,656,126	\$ 186,918,677	\$ 178,101,424	\$ 176,949,460	\$ 174,040,805	\$ 176,379,404	\$ 151,318,266	\$ 84,380,021
Operating Expense per Day (365 days)	\$ 579,880	\$ 512,106	\$ 487,949	\$ 484,793	\$ 476,824	\$ 483,231	\$ 414,571	\$ 466,188
Number of days cash	521	574	664	593	495	432	495	403
Combined								
Cash and investments - Unrestricted	\$ 545,976,943	\$ 532,864,509	\$ 677,281,103	\$ 681,905,734	\$ 583,262,056	\$ 525,653,014	\$ 472,514,870	\$ 355,355,947
Operating Expense								
Operating expense	\$ 660,786,142	\$ 609,950,669	\$ 579,459,712	\$ 593,153,157	\$ 606,544,905	\$ 618,232,739	\$ 582,815,592	\$ 291,242,254
Less: depreciation	(289,956,600)	(281,209,656)	(274,043,606)	(280,104,195)	(309,115,490)	(331,242,398)	(329,766,377)	(157,316,574)
Less: amortization of intangible asset	(4,006,368)	(4,006,368)	(3,566,664)	(3,566,664)	(3,566,664)	(2,080,554)	-	-
Net Operating Expense	\$ 366,823,174	\$ 324,734,645	\$ 301,849,442	\$ 309,482,298	\$ 293,862,751	\$ 284,909,787	\$ 253,049,215	\$ 133,925,680
Operating Expense per Day (365 days)	\$ 1,004,995	\$ 889,684	\$ 826,985	\$ 847,897	\$ 805,103	\$ 780,575	\$ 693,286	\$ 739,921
Number of days cash	543	599	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).

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

GREAT LAKES WATER AUTHORITY

NOTES TO SUPPLEMENTARY INFORMATION

For the Year Ended June 30, 2023

Note 1 – Combining Fund Schedules

The Combining 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 for the proceeds of water debt obligations and investment earnings thereon. I&E funds may also be transferred to this fund when bond proceeds have been exhausted. Funds are used to pay for water system capital improvements in accordance with the debt obligations.

Sewer Construction Fund – This fund is used for the proceeds of sewer debt obligations and investment earnings thereon. I&E funds may also be transferred to this fund when bond proceeds have been exhausted. Funds are used to pay for the wastewater system capital improvements in accordance with the debt obligations.

GREAT LAKES WATER AUTHORITY

NOTES TO SUPPLEMENTARY INFORMATION

For the Year Ended June 30, 2023

Note 2 – Budget to Actual Schedules

Schedule of Operating Expenses – Budget to Actual

The schedule of operating expenses for the water operations and the sewer operations provides the detail of the major expense categories of the operations budget compared to the actual results. The schedule includes the actual operating expenses before depreciation and amortization for the Water Operations Fund and the Sewer Operations Fund reported in the Combining Schedule of Revenues, Expenses and Changes in Net position for the Water Fund and the Sewage Disposal Fund. The warehouse lease line represents the total lease payments made for the warehouse which is included in the budget as an operating lease. 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 subscription based information technology arrangements (SBITA) payments line represents the payments made for the SBITA's which is included in the budget as a contractual service. For financial reporting purposes these costs have been treated as a prepaid subscription asset as the software is not in service as of June 30, 2023.

Schedule of Revenue Requirement – Budget to Actual

The revenue requirements are the basis for GLWA's budget and calculating Member Partner service charges. The revenue requirements are 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 and GASB 96 as described in the note above. The budget also includes the cash payments for debt service, legacy pension obligations, water residential assistance program 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.

Investment earnings for the budget basis includes the stated interest rate received, amortization of the market discount or premium, and realized gains and losses (calculated for budget purposes as the difference between the selling price and the amortized cost basis). This will vary from the investment earnings reported in the basic financial statements. The main difference is the budget basis does not include unrealized gains and losses (calculated for budget purposes as the difference between the market value and the amortized cost basis).

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 requirement 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 reconciliation between the different basis of accounting used for the budget and the financial report.

STATISTICAL SECTION

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 is divided into five sections as follows:

- Financial Trends
- Revenue Capacity
- Debt Capacity
- Demographic and Economic Information
- Operating Information

Sources: Unless otherwise noted, information presented in the statistical schedules is compiled from GLWA's Annual Comprehensive Financial Reports, the prior financial reports of DWSD or other internal information systems.

FINANCIAL TRENDS

Financial trends information is intended to show how the Authority's financial position has changed over time.

GREAT LAKES WATER AUTHORITY
SCHEDULE OF NET POSITION - BUSINESS-TYPE ACTIVITIES

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016
Assets								
Current Assets								
Cash and cash equivalents	\$ 482,735,648	\$ 347,655,417	\$ 354,351,132	\$ 208,356,720	\$ 309,015,559	\$ 509,141,777	\$ 470,231,842	\$ 311,735,186
Restricted cash and cash equivalents	264,777,942	87,643,974	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	42,463,972	20,469,633	6,064,197	1,544,529	3,318,316	8,418,827	288,378	62,078
Investments	63,241,295	185,209,092	322,929,971	473,549,014	274,246,497	16,511,237	2,283,028	43,620,761
Restricted investments	43,673,481	103,754,094	31,690,982	117,966,914	34,852,593	33,025,340	32,541,021	56,661,000
Receivables								
Billed	111,310,366	118,892,413	108,247,576	95,159,661	98,886,172	88,712,190	88,694,341	85,676,104
Unbilled	57,768,194	54,395,207	54,387,680	54,893,266	50,441,488	54,429,817	53,818,603	55,345,336
Other	401,558	1,292,666	574,906	310,373	1,137,526	3,728,886	3,158,350	114,648,035
Allowance for doubtful accounts	(58,846,688)	(56,823,732)	(50,884,273)	(44,991,966)	(42,257,915)	(39,084,816)	(35,352,009)	(124,009,242)
Due from other governments	11,881,282	13,454,460	13,240,859	31,802,636	30,243,156	47,927,860	50,789,041	107,688,300
Due from other funds	3,247,468	2,328,086	2,948,712	2,134,191	2,889,522	3,778,220	-	65,971
Contractual obligation receivable	36,669,011	33,529,695	31,195,900	29,661,490	26,418,147	24,813,886	23,339,242	11,929,259
Shortfall receivable - DWSD	-	-	8,296,578	18,206,431	17,542,669	9,367,355	-	-
Prepaid items and other assets	16,473,691	13,622,385	11,744,542	10,150,336	8,448,932	4,949,631	3,526,568	2,591,049
Inventories	10,649,496	8,366,771	7,795,152	7,007,208	5,832,593	8,471,626	8,509,454	9,984,063
Total Current Assets	<u>1,086,446,716</u>	<u>933,790,161</u>	<u>1,053,769,958</u>	<u>1,071,115,533</u>	<u>985,511,094</u>	<u>880,121,228</u>	<u>834,794,940</u>	<u>810,208,168</u>
Noncurrent Assets								
Restricted cash and cash equivalents	162,962,263	5,264,591	5,395,501	47,505,584	94,185,040	48,263,059	306,318,331	160,949,722
Restricted investments	134,324,735	40,691,319	38,533,910	39,819,506	150,978,512	293,697,988	101,708,122	105,028,079
Contractual obligation receivable	899,049,912	919,288,110	936,811,819	954,297,909	883,248,672	812,613,943	830,432,680	832,571,741
Shortfall 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	25,000,000	25,000,000	-
Capital assets								
Nondepreciable/nonamortizable	1,088,758,476	887,940,328	813,485,421	719,865,490	786,405,120	706,046,995	730,471,792	711,434,348
Depreciated/amortized, net	3,319,883,704	3,527,083,870	3,644,679,801	3,786,833,157	3,849,136,489	4,089,136,230	4,178,315,045	4,427,945,555
Prepaid insurance on debt	15,142,970	16,773,793	18,357,442	19,988,764	22,635,151	29,933,631	32,694,221	48,653,581
Total Noncurrent Assets	<u>5,645,122,060</u>	<u>5,422,042,011</u>	<u>5,482,263,894</u>	<u>5,601,606,988</u>	<u>5,838,091,994</u>	<u>6,024,624,491</u>	<u>6,204,940,191</u>	<u>6,286,583,026</u>
Total Assets	<u>6,731,568,776</u>	<u>6,355,832,172</u>	<u>6,536,033,852</u>	<u>6,672,722,521</u>	<u>6,823,603,088</u>	<u>6,904,745,719</u>	<u>7,039,735,131</u>	<u>7,096,791,194</u>
Deferred Outflows of Resources								
Deferred charge on refunding	133,948,479	152,338,303	163,387,050	174,435,795	241,879,138	280,975,963	297,646,441	328,659,457
Deferred pension amounts	47,723,960	30,158,700	61,687,252	42,661,204	31,717,285	52,015,636	59,954,478	37,997,043
Total Deferred Outflows of Resources	<u>181,672,439</u>	<u>182,497,003</u>	<u>225,074,302</u>	<u>217,096,999</u>	<u>273,596,423</u>	<u>332,991,599</u>	<u>357,600,919</u>	<u>366,656,500</u>

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016
Liabilities								
Current Liabilities								
Accounts and contracts payable	\$ 113,308,498	\$ 94,379,034	\$ 85,221,415	\$ 74,070,629	\$ 74,662,036	\$ 67,832,136	\$ 64,298,400	\$ 85,626,614
Accrued salaries, wages and benefits	2,063,359	2,060,030	6,028,598	5,321,864	4,284,220	4,734,956	3,190,038	2,887,280
Accrued liabilities	53,951,292	25,004,633	11,573,811	5,357,056	7,109,589	12,679,692	2,252,616	1,550,254
Due to other governments	6,874,058	21,360,601	19,443,993	20,032,254	15,963,934	11,983,407	61,242,386	37,893,903
Due to other funds	3,247,468	2,328,086	2,948,712	2,134,191	2,889,522	3,778,220	-	65,971
Interest payable	82,190,367	70,965,548	71,811,380	58,452,960	84,456,284	80,431,318	80,340,520	81,139,013
Current portion of:								
Revenue bonds and loans	149,725,340	127,403,800	119,909,733	121,998,075	117,602,109	81,756,050	89,314,212	96,552,356
Raw water rights obligation	2,963,619	2,845,282	2,734,246	2,624,820	2,520,996	2,999,458	-	-
BC Note obligation	695,845	662,710	631,153	601,097	572,474	545,213	519,251	494,524
Regional system leases	13,174,371	12,637,211	12,121,951	11,627,700	11,153,602	10,698,835	10,262,609	9,844,169
Other liabilities	29,182,845	6,813,946	5,867,203	6,380,583	5,751,747	5,687,043	6,714,210	7,789,273
Total Current Liabilities	<u>457,377,062</u>	<u>366,460,881</u>	<u>338,292,195</u>	<u>308,601,229</u>	<u>326,966,513</u>	<u>283,126,328</u>	<u>318,134,242</u>	<u>323,843,357</u>
Noncurrent Liabilities								
Revenue bonds and loans	5,491,493,953	5,149,961,142	5,319,896,659	5,474,913,736	5,630,571,800	5,714,095,283	5,842,482,161	5,876,115,822
Raw water rights obligation	89,552,155	92,515,774	95,361,056	98,095,302	100,720,123	103,241,118	-	-
BC Note obligation	52,392,606	53,088,452	53,751,162	54,382,315	54,983,412	55,555,887	56,101,100	56,620,351
Regional system lease	875,927,100	889,101,471	901,738,681	913,860,632	925,488,338	936,641,935	947,340,770	957,603,379
Other liabilities	33,578,631	21,122,269	21,514,839	18,757,906	18,771,285	18,437,517	11,340,902	46,002,543
Net pension liability	63,174,607	65,221,327	144,305,198	132,909,889	131,981,165	178,961,907	194,075,547	170,229,438
Total Noncurrent Liabilities	<u>6,606,119,052</u>	<u>6,271,010,435</u>	<u>6,536,567,595</u>	<u>6,692,919,780</u>	<u>6,862,516,123</u>	<u>7,006,933,647</u>	<u>7,051,340,480</u>	<u>7,106,571,533</u>
Total Liabilities	<u>7,063,496,114</u>	<u>6,637,471,316</u>	<u>6,874,859,790</u>	<u>7,001,521,009</u>	<u>7,189,482,636</u>	<u>7,290,059,975</u>	<u>7,369,474,722</u>	<u>7,430,414,890</u>
Deferred Inflows of Resources								
Deferred gain on refunding	81,269,853	88,783,069	96,296,284	103,809,499	108,300,657	105,907,267	112,080,430	-
Deferred amounts for swap terminations	57,089	61,895	84,205	106,515	240,839	270,150	299,461	4,373,886
Deferred capital contribution	-	-	-	5,960,000	-	-	-	-
Deferred pension amounts	-	31,311,922	-	-	-	20,254,690	18,316,430	43,342,798
Total Deferred Inflows of Resources	<u>81,326,942</u>	<u>120,156,886</u>	<u>96,380,489</u>	<u>109,876,014</u>	<u>108,541,496</u>	<u>126,432,107</u>	<u>130,696,321</u>	<u>47,716,684</u>
Net Position (Deficit)								
Net investment in capital assets	(336,552,993)	(194,715,306)	(302,012,473)	(351,218,780)	(228,867,586)	(49,720,885)	140,378,223	311,166,676
Restricted for construction	2,180,985	-	-	-	-	-	-	-
Restricted for debt service	147,436,260	123,414,653	114,544,694	105,282,969	146,977,835	125,235,904	134,125,957	178,591,676
Restricted for payment assistance program	4,652,563	12,318,423	11,043,109	8,988,078	8,001,369	5,771,110	5,336,117	3,504,148
Unrestricted	(49,298,656)	(160,316,797)	(33,707,455)	15,370,230	(126,936,239)	(260,040,893)	(382,675,290)	(507,946,380)
TOTAL NET POSITION (DEFICIT)	<u>\$ (231,581,841)</u>	<u>\$ (219,299,027)</u>	<u>\$ (210,132,125)</u>	<u>\$ (221,577,503)</u>	<u>\$ (200,824,621)</u>	<u>\$ (178,754,764)</u>	<u>\$ (102,834,993)</u>	<u>\$ (14,683,880)</u>

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
SCHEDULE OF NET POSITION - WATER FUND

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016
Assets								
Current Assets								
Cash and cash equivalents	\$ 222,625,550	\$ 147,191,020	\$ 162,766,427	\$ 88,786,996	\$ 148,643,793	\$ 310,085,221	\$ 266,483,138	\$ 155,712,891
Restricted cash and cash equivalents	127,679,570	49,069,747	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	17,474,699	11,371,285	3,144,400	1,544,529	2,690,397	8,418,827	288,378	10,430
Investments	21,081,772	91,499,859	190,541,958	305,653,818	198,561,135	7,004,525	852,420	11,579,681
Restricted investments	9,975,144	30,711,544	2,932,400	30,900,352	1,468,148	1,234,954	1,169,187	27,818,000
Receivables								
Billed	55,359,908	54,169,640	48,694,817	38,769,605	38,336,701	38,272,740	36,459,563	37,629,170
Unbilled	33,527,694	30,349,758	30,066,884	31,032,237	26,144,348	29,229,709	29,539,433	32,307,945
Other	286,079	295,791	85,494	214,997	916,074	5,850	1,300	21,899,046
Allowance for doubtful accounts	(16,225,907)	(13,917,234)	(11,562,519)	(8,634,075)	(7,455,747)	(6,221,815)	(4,941,777)	(25,040,612)
Due from other governments	5,785,565	11,246,188	11,889,748	20,343,238	30,063,571	23,588,754	21,327,713	41,486,157
Due from other funds	1,032,754	2,328,086	2,786,344	2,134,191	2,876,954	330,293	-	-
Contractual obligation receivable	20,608,286	18,126,021	16,558,716	15,620,163	14,328,368	13,560,086	12,076,942	6,851,584
Prepaid items and other assets	10,795,086	8,701,487	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	510,006,200	441,143,192	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	96,480,165	2,773,291	2,519,127	20,491,397	32,154,262	18,261,706	177,939,494	5,460,942
Restricted investments	22,002,166	9,506,991	8,651,762	10,770,585	77,075,423	150,436,225	20,530,374	42,841,345
Contractual obligation receivable	544,820,801	549,493,189	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	11,250,000	11,250,000	-
Capital assets								
Nondepreciable/nonamortizable	670,557,112	567,414,021	498,010,970	418,996,654	467,830,218	434,684,895	452,185,674	415,558,090
Depreciated/amortized, net	1,330,639,811	1,384,312,298	1,418,773,460	1,487,915,510	1,492,118,136	1,604,038,058	1,587,291,603	1,728,054,410
Prepaid insurance on debt	5,995,322	6,649,782	7,304,243	7,958,703	8,754,897	13,002,376	14,112,324	20,831,496
Total Noncurrent Assets	2,681,745,377	2,531,399,572	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	3,191,751,577	2,972,542,764	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	39,316,288	41,997,055	44,677,823	47,358,590	82,508,971	94,431,823	99,294,499	116,511,949
Deferred pension amounts	17,107,308	10,810,800	22,112,642	15,292,494	11,369,496	18,645,719	21,491,506	13,620,562
Total Deferred Outflows of Resources	56,423,596	52,807,855	66,790,465	62,651,084	93,878,467	113,077,542	120,786,005	130,132,511

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016
Liabilities								
Current Liabilities								
Accounts and contracts payable	\$ 60,207,304	\$ 56,890,771	\$ 53,039,330	\$ 43,231,679	\$ 36,657,714	\$ 33,754,534	\$ 36,751,842	\$ 49,474,527
Accrued salaries, wages and benefits	1,757,758	1,046,674	4,892,033	5,321,864	4,284,220	4,734,956	3,190,038	2,887,280
Accrued liabilities	25,111,216	15,261,427	6,958,556	5,357,056	6,481,670	12,679,692	1,353,816	875,796
Due to other governments	3,124,058	17,610,601	15,693,993	18,282,254	15,963,934	11,935,868	25,393,813	13,668,890
Due to other funds	2,214,714	-	162,368	-	12,568	3,447,927	-	65,971
Interest payable	41,789,634	36,398,995	36,621,768	30,887,915	40,325,682	39,322,324	39,329,322	37,226,125
Current portion of:								
Revenue bonds and loans	62,332,082	40,091,255	32,500,450	33,058,615	29,244,447	20,569,843	23,393,905	35,650,167
Raw water rights obligation	2,963,619	2,845,282	2,734,246	2,624,820	2,520,996	2,999,458	-	-
BC Note obligation	214,151	203,954	194,242	184,992	176,183	167,794	159,803	152,193
Regional system lease	5,928,467	5,686,745	5,454,878	5,232,465	5,019,121	4,814,476	4,618,174	4,429,876
Other liabilities	3,743,223	3,378,083	3,123,843	5,331,161	4,938,308	4,635,565	2,182,888	6,675,228
Total Current Liabilities	<u>209,386,226</u>	<u>179,413,787</u>	<u>161,375,707</u>	<u>149,512,821</u>	<u>145,624,843</u>	<u>139,062,437</u>	<u>136,373,601</u>	<u>151,106,053</u>
Noncurrent Liabilities								
Revenue bonds and loans	2,592,206,224	2,359,238,286	2,407,391,624	2,459,730,737	2,467,177,447	2,545,529,255	2,606,465,431	2,488,824,632
Raw water rights obligation	89,552,155	92,515,774	95,361,056	98,095,302	100,720,123	103,241,118	-	-
BC Note obligation	16,124,188	16,338,339	16,542,293	16,736,534	16,921,526	17,097,709	17,265,503	17,425,306
Regional system lease	394,167,195	400,095,662	405,782,406	411,237,284	416,469,750	421,488,871	426,303,346	430,921,520
Other liabilities	3,713,668	4,132,979	4,138,780	4,840,615	4,979,604	4,933,977	5,170,201	9,784,562
Net pension liability	22,645,805	23,379,480	51,728,179	47,643,374	47,310,460	64,151,352	69,569,044	61,021,079
Total Noncurrent Liabilities	<u>3,118,409,235</u>	<u>2,895,700,520</u>	<u>2,980,944,338</u>	<u>3,038,283,846</u>	<u>3,053,578,910</u>	<u>3,156,442,282</u>	<u>3,124,773,525</u>	<u>3,007,977,099</u>
Total Liabilities	<u>3,327,795,461</u>	<u>3,075,114,307</u>	<u>3,142,320,045</u>	<u>3,187,796,667</u>	<u>3,199,203,753</u>	<u>3,295,504,719</u>	<u>3,261,147,126</u>	<u>3,159,083,152</u>
Deferred Inflows of Resources								
Deferred gain on refunding	44,182,654	48,216,421	52,250,187	56,283,953	60,317,719	59,252,431	62,822,646	-
Deferred amounts for swap terminations	56,712	61,438	66,164	70,890	75,616	80,342	85,068	4,134,908
Deferred pension amounts	-	11,224,189	-	-	-	7,260,572	6,565,776	15,536,821
Total Deferred Inflows of Resources	<u>44,239,366</u>	<u>59,502,048</u>	<u>52,316,351</u>	<u>56,354,843</u>	<u>60,393,335</u>	<u>66,593,345</u>	<u>69,473,490</u>	<u>19,671,729</u>
Net Position (Deficit)								
Net investment in capital assets	(198,390,747)	(109,163,683)	(191,352,010)	(237,858,820)	(166,485,092)	(84,133,546)	(2,321,309)	90,778,518
Restricted for debt service	56,139,482	31,660,045	23,688,943	19,479,656	29,731,576	23,239,368	26,194,280	69,797,836
Restricted for payment assistance program	2,289,905	5,272,708	4,614,294	3,754,368	3,369,875	2,462,214	2,218,373	1,451,598
Unrestricted	16,101,706	(37,034,806)	65,783,239	118,215,240	56,502,001	(2,003,397)	(62,565,494)	(166,119,547)
TOTAL NET POSITION (DEFICIT)	<u>\$ (123,859,654)</u>	<u>\$ (109,265,736)</u>	<u>\$ (97,265,534)</u>	<u>\$ (96,409,556)</u>	<u>\$ (76,881,640)</u>	<u>\$ (60,435,361)</u>	<u>\$ (36,474,150)</u>	<u>\$ (4,091,595)</u>

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

SCHEDULE OF NET POSITION - SEWAGE DISPOSAL FUND

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016
Assets								
Current Assets								
Cash and cash equivalents	\$ 260,110,098	\$ 200,464,397	\$ 191,584,705	\$ 119,569,724	\$ 160,371,766	\$ 199,056,556	\$ 203,748,704	\$ 156,022,295
Restricted cash and cash equivalents	137,098,372	38,574,227	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	24,989,273	9,098,348	2,919,797	-	627,919	-	-	51,648
Investments	42,159,523	93,709,233	132,388,013	167,895,196	75,685,362	9,506,712	1,430,608	32,041,080
Restricted investments	33,698,337	73,042,550	28,758,582	87,066,562	33,384,445	31,790,386	31,371,834	28,843,000
Receivables								
Billed	55,950,458	64,722,773	59,552,759	56,390,056	60,549,471	50,439,450	52,234,778	48,046,934
Unbilled	24,240,500	24,045,449	24,320,796	23,861,029	24,297,140	25,200,108	24,279,170	23,037,391
Other	115,479	996,875	489,412	95,376	221,452	3,723,036	3,157,050	92,748,989
Allowance for doubtful accounts	(42,620,781)	(42,906,498)	(39,321,754)	(36,357,891)	(34,802,168)	(32,863,001)	(30,410,232)	(98,968,630)
Due from other governments	6,095,717	2,208,272	1,351,111	11,459,398	179,585	24,339,106	29,461,328	66,202,143
Due from other funds	2,214,714	-	162,368	-	12,568	3,447,927	-	65,971
Contractual obligation receivable	16,060,725	15,403,674	14,637,184	14,041,327	12,089,779	11,253,800	11,262,300	5,077,675
Shortfall receivable - DWSD	-	-	8,296,578	18,206,431	17,542,669	9,367,355	-	-
Prepaid items and other assets	5,678,605	4,920,898	4,143,303	3,691,723	2,801,271	1,683,659	1,089,521	407,359
Inventories	10,649,496	8,366,771	7,000,631	6,370,587	5,445,981	8,471,626	8,509,454	9,984,063
Total Current Assets	<u>576,440,516</u>	<u>492,646,969</u>	<u>521,792,499</u>	<u>498,349,795</u>	<u>454,338,768</u>	<u>400,248,770</u>	<u>408,348,328</u>	<u>444,741,342</u>
Noncurrent Assets								
Restricted cash and cash equivalents	66,482,098	2,491,300	2,876,374	27,014,187	62,030,778	30,001,353	128,378,837	155,488,780
Restricted investments	112,322,569	31,184,328	29,882,148	29,048,921	73,903,089	143,261,763	81,177,748	62,186,734
Contractual obligation receivable	354,229,111	369,794,921	384,718,443	399,355,626	414,766,953	335,574,500	346,828,300	366,254,075
Shortfall 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	13,750,000	13,750,000	-
Capital assets								
Nondepreciable/nonamortizable	418,201,364	320,526,307	315,474,451	300,868,836	318,574,902	271,362,100	278,286,118	295,876,258
Depreciated/amortized, net	1,989,243,893	2,142,771,572	2,225,906,341	2,298,917,647	2,357,018,353	2,485,098,172	2,591,023,442	2,699,891,145
Prepaid insurance on debt	9,147,648	10,124,011	11,053,199	12,030,061	13,880,254	16,931,255	18,581,897	27,822,085
Total Noncurrent Assets	<u>2,963,376,683</u>	<u>2,890,642,439</u>	<u>2,983,660,956</u>	<u>3,089,281,856</u>	<u>3,280,427,339</u>	<u>3,315,911,788</u>	<u>3,458,026,342</u>	<u>3,607,519,077</u>
Total Assets	<u>3,539,817,199</u>	<u>3,383,289,408</u>	<u>3,505,453,455</u>	<u>3,587,631,651</u>	<u>3,734,766,107</u>	<u>3,716,160,558</u>	<u>3,866,374,670</u>	<u>4,052,260,419</u>
Deferred Outflows of Resources								
Deferred charge on refunding	94,632,191	110,341,248	118,709,227	127,077,205	159,370,167	186,544,140	198,351,942	212,147,508
Deferred pension amounts	30,616,652	19,347,900	39,574,610	27,368,710	20,347,789	33,369,917	38,462,972	24,376,481
Total Deferred Outflows of Resources	<u>125,248,843</u>	<u>129,689,148</u>	<u>158,283,837</u>	<u>154,445,915</u>	<u>179,717,956</u>	<u>219,914,057</u>	<u>236,814,914</u>	<u>236,523,989</u>

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016
Liabilities								
Current Liabilities								
Accounts and contracts payable	\$ 53,101,194	\$ 37,488,263	\$ 32,182,085	\$ 30,838,950	\$ 38,004,322	\$ 34,077,602	\$ 27,546,558	\$ 36,152,087
Accrued salaries, wages and benefits	305,601	1,013,356	1,136,565	-	-	-	-	-
Accrued liabilities	28,840,076	9,743,206	4,615,255	-	627,919	-	898,800	674,458
Due to other governments	3,750,000	3,750,000	3,750,000	1,750,000	-	47,539	35,848,573	24,225,013
Due to other funds	1,032,754	2,328,086	2,786,344	2,134,191	2,876,954	330,293	-	-
Interest payable	40,400,733	34,566,553	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	87,393,258	87,312,545	87,409,283	88,939,460	88,357,662	61,186,207	65,920,307	60,902,189
BC Note obligation	481,694	458,756	436,911	416,105	396,291	377,419	359,448	342,331
Regional system lease	7,245,904	6,950,466	6,667,073	6,395,235	6,134,481	5,884,359	5,644,435	5,414,293
Other liabilities	25,439,622	3,435,863	2,743,360	1,049,422	813,439	1,051,478	4,531,322	1,114,045
Total Current Liabilities	<u>247,990,836</u>	<u>187,047,094</u>	<u>176,916,488</u>	<u>159,088,408</u>	<u>181,341,670</u>	<u>144,063,891</u>	<u>181,760,641</u>	<u>172,737,304</u>
Noncurrent Liabilities								
Revenue bonds and loans	2,899,287,729	2,790,722,856	2,912,505,035	3,015,182,999	3,163,394,353	3,168,566,028	3,236,016,730	3,387,291,190
BC Note obligation	36,268,418	36,750,113	37,208,869	37,645,781	38,061,886	38,458,178	38,835,597	39,195,045
Regional system lease	481,759,905	489,005,809	495,956,275	502,623,348	509,018,588	515,153,064	521,037,424	526,681,859
Other liabilities	29,864,963	16,989,290	17,376,059	13,917,291	13,791,681	13,503,540	6,170,701	36,217,981
Net pension liability	40,528,802	41,841,847	92,577,019	85,266,515	84,670,705	114,810,555	124,506,503	109,208,359
Total Noncurrent Liabilities	<u>3,487,709,817</u>	<u>3,375,309,915</u>	<u>3,555,623,257</u>	<u>3,654,635,934</u>	<u>3,808,937,213</u>	<u>3,850,491,365</u>	<u>3,926,566,955</u>	<u>4,098,594,434</u>
Total Liabilities	<u>3,735,700,653</u>	<u>3,562,357,009</u>	<u>3,732,539,745</u>	<u>3,813,724,342</u>	<u>3,990,278,883</u>	<u>3,994,555,256</u>	<u>4,108,327,596</u>	<u>4,271,331,738</u>
Deferred Inflows of Resources								
Deferred gain on refunding	37,087,199	40,566,648	44,046,097	47,525,546	47,982,938	46,654,836	49,257,784	-
Deferred amounts for swap terminations	377	457	18,041	35,625	165,223	189,808	214,393	238,978
Deferred capital contribution	-	-	-	5,960,000	-	-	-	-
Deferred pension amounts	-	20,087,733	-	-	-	12,994,118	11,750,654	27,805,977
Total Deferred Inflows of Resources	<u>37,087,576</u>	<u>60,654,838</u>	<u>44,064,138</u>	<u>53,521,171</u>	<u>48,148,161</u>	<u>59,838,762</u>	<u>61,222,831</u>	<u>28,044,955</u>
Net Position (Deficit)								
Net investment in capital assets	(138,162,246)	(85,551,623)	(110,660,463)	(113,359,960)	(62,382,494)	34,412,661	142,699,532	220,388,158
Restricted for construction	2,180,985	-	-	-	-	-	-	-
Restricted for debt service	91,296,778	91,754,608	90,855,751	85,803,313	117,246,259	101,996,536	107,931,677	108,793,840
Restricted for payment assistance program	2,362,658	7,045,715	6,428,815	5,233,710	4,631,494	3,308,896	3,117,744	2,052,550
Unrestricted	(65,400,362)	(123,281,991)	(99,490,694)	(102,845,010)	(183,438,240)	(258,037,496)	(320,109,796)	(341,826,833)
TOTAL NET POSITION (DEFICIT)	<u>\$ (107,722,187)</u>	<u>\$ (110,033,291)</u>	<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>

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
CHANGES IN NET POSITION - BUSINESS-TYPE ACTIVITIES

Schedule 2

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016*
Operating Revenues								
Wholesale customer charges	\$ 616,511,308	\$ 591,839,582	\$ 589,991,584	\$ 578,705,063	\$ 584,171,596	\$ 592,096,175	\$ 594,426,876	\$ 281,883,522
Local system charges	213,876,500	210,359,500	209,885,200	207,102,800	201,340,700	194,099,800	202,794,400	102,660,400
Industrial waste charges	8,393,103	8,300,278	8,004,939	7,854,593	9,106,274	14,334,979	14,381,106	6,910,192
Pollutant surcharges	4,894,567	5,181,816	6,719,964	6,448,508	5,932,550	6,908,404	5,206,294	2,423,910
Bad debt recovery	-	-	-	-	-	-	40,172,155	-
Other revenues	2,011,011	663,953	766,943	778,257	527,663	4,455,345	576,195	4,252,477
Total Operating Revenues	845,686,489	816,345,129	815,368,630	800,889,221	801,078,783	811,894,703	857,557,026	398,130,501
Operating Expenses								
Personnel	114,808,018	107,053,390	106,945,131	104,266,420	98,588,599	95,525,457	86,156,304	21,590,763
Contractual services	116,946,973	114,094,006	103,324,025	109,448,358	101,743,758	99,877,310	90,135,859	17,179,869
Utilities	77,276,536	59,655,751	52,749,654	51,152,735	51,395,385	53,694,380	55,661,469	25,037,499
Chemicals	30,542,063	20,382,163	13,982,136	14,241,843	13,275,860	12,877,813	14,765,181	6,451,484
Supplies and other expenses	34,571,711	29,069,352	31,097,071	35,427,273	37,120,915	34,526,388	20,162,690	17,903,355
Capital adjustment	-	-	-	26,780	2,258,351	-	-	-
Capital program allocation	(2,189,642)	(2,632,136)	(3,191,809)	(3,347,401)	(3,380,755)	(1,683,450)	(2,128,078)	-
Intergovernmental reimbursements	(5,132,485)	(2,887,881)	(3,166,692)	(1,733,710)	(7,139,362)	(9,908,111)	(11,704,210)	-
Centralized services	-	-	-	-	-	-	-	35,228,282
Administrative services	-	-	-	-	-	-	-	10,534,428
Depreciation	289,956,600	281,209,656	274,043,606	280,104,195	309,115,490	331,242,398	329,766,377	157,316,574
Amortization of intangible assets	4,006,368	4,006,368	3,676,590	3,566,664	3,566,664	2,080,554	-	-
Total Operating Expenses	660,786,142	609,950,669	579,459,712	593,153,157	606,544,905	618,232,739	582,815,592	291,242,254
Operating Income	184,900,347	206,394,460	235,908,918	207,736,064	194,533,878	193,661,964	274,741,434	106,888,247
Nonoperating Revenues (Expenses)								
Earnings (loss) on investments	37,601,830	(5,384,278)	1,259,624	25,416,706	26,517,802	11,395,785	4,042,790	1,481,398
Interest on obligations receivable	41,059,361	42,264,765	43,722,511	42,434,884	41,777,702	38,856,520	42,332,428	21,062,500
Interest expense	(271,291,054)	(256,196,504)	(263,485,014)	(288,947,856)	(296,597,333)	(300,395,306)	(291,592,097)	(148,447,442)
Amortization of debt related items and COI	3,998,310	13,318,015	12,965,639	10,302,560	3,995,230	8,684,285	(14,937,182)	2,055,724
Legacy pension recovery (expense)	20,765,202	(13,915,303)	(22,527,961)	(20,143,505)	16,778,381	(24,922,162)	(7,021,006)	-
Water Residential Assistance Program	(12,342,512)	(2,792,837)	(1,517,453)	(3,315,117)	(2,024,119)	(3,755,534)	(2,127,333)	-
Other	1,752,328	153,741	(840,886)	(196,618)	(524,198)	554,677	379,409	275,693
Discontinued capital projects	(20,902,626)	-	-	-	-	-	-	-
Sewer lookback - MOU adjustment	-	-	-	-	(6,527,200)	-	-	-
Total Nonoperating Expenses	(199,359,161)	(222,552,401)	(230,423,540)	(234,448,946)	(216,603,735)	(269,581,735)	(268,922,991)	(123,572,127)
Income (loss) before capital contributions and special item	(14,458,814)	(16,157,941)	5,485,378	(26,712,882)	(22,069,857)	(75,919,771)	5,818,443	(16,683,880)
Capital Contributions	2,176,000	6,991,039	5,960,000	5,960,000	-	-	320,707	2,000,000
Special Item - MOU with DWSD	-	-	-	-	-	-	(94,290,263)	-
Change in Net Position	(12,282,814)	(9,166,902)	11,445,378	(20,752,882)	(22,069,857)	(75,919,771)	(88,151,113)	(14,683,880)
NET POSITION (DEFICIT), Beginning of Year	(219,299,027)	(210,132,125)	(221,577,503)	(200,824,621)	(178,754,764)	(102,834,993)	(14,683,880)	-
NET POSITION (DEFICIT), END OF YEAR	\$ (231,581,841)	\$ (219,299,027)	\$ (210,132,125)	\$ (221,577,503)	\$ (200,824,621)	\$ (178,754,764)	\$ (102,834,993)	\$ (14,683,880)

* GLWA began operations on January 1, 2016. The data for FY 2016 relates to six months of activity through June 30, 2016.

This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

GREAT LAKES WATER AUTHORITY
CHANGES IN NET POSITION - WATER FUND

Schedule 2a

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016*
Operating Revenues								
Wholesale customer charges	\$ 340,593,806	\$ 323,026,213	\$ 322,423,768	\$ 312,701,777	\$ 311,399,136	\$ 323,117,344	\$ 331,115,131	\$ 160,777,169
Local system charges	22,834,300	21,697,300	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	350,991	234,462	265,822	256,300	21,340	64,200	37,388	54,863
Total Operating Revenues	363,779,097	344,957,975	344,615,090	334,253,577	331,601,876	338,312,144	351,749,944	167,665,532
Operating Expenses								
Personnel	48,855,342	44,892,622	43,889,495	43,946,225	42,085,546	41,845,295	38,261,393	8,301,022
Contractual services	52,817,187	50,683,897	40,410,811	46,097,405	43,083,078	35,794,549	34,257,419	3,304,113
Utilities	33,436,545	28,725,292	28,828,226	27,719,754	26,247,858	26,871,081	28,469,603	12,368,557
Chemicals	12,689,666	7,788,784	6,028,141	5,569,437	5,088,827	4,804,768	5,340,753	2,444,543
Supplies and other expenses	11,926,150	9,157,367	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	(1,172,302)	(1,618,459)	(2,123,060)	(2,164,003)	(2,054,913)	(713,779)	(977,762)	-
Intergovernmental reimbursements	(3,385,540)	(1,813,535)	(2,554,511)	(696,952)	(6,425,729)	(9,615,146)	(11,603,019)	-
Centralized services	-	-	-	-	-	-	-	18,494,851
Administrative services	-	-	-	-	-	-	-	3,191,929
Depreciation	126,485,762	123,196,027	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	3,566,664	3,566,664	2,080,554	-	-
Total Operating Expenses	285,219,474	264,578,659	250,476,297	263,282,730	263,959,730	254,602,752	245,868,861	120,841,204
Operating Income	78,559,623	80,379,316	94,138,793	70,970,847	67,642,146	83,709,392	105,881,083	46,824,328
Nonoperating Revenues (Expenses)								
Earnings (loss) on investments	16,724,485	(2,361,396)	768,918	13,744,774	14,754,401	6,129,530	1,832,918	392,031
Interest on obligations receivable	24,662,083	25,107,207	25,474,904	22,945,866	22,921,380	23,351,220	25,269,750	12,231,250
Interest expense	(131,161,860)	(125,086,379)	(128,257,367)	(133,537,621)	(136,704,033)	(139,343,204)	(132,434,945)	(65,958,095)
Amortization of debt related items and COI	14,577,852	15,610,434	15,988,278	14,258,569	10,771,937	13,837,585	2,403,018	2,418,891
Legacy pension recovery (expense)	7,443,572	(4,988,132)	(8,075,457)	(7,220,716)	6,014,441	(8,933,691)	(2,516,776)	-
Water Residential Assistance Program	(5,023,436)	(1,049,908)	(593,206)	(1,393,179)	(855,455)	(1,506,554)	(884,327)	-
Other	526,389	388,656	(300,841)	703,544	(991,096)	(1,205,489)	878,305	-
Discontinued capital projects	(20,902,626)	-	-	-	-	-	-	-
Total Nonoperating Expenses	(93,153,541)	(92,379,518)	(94,994,771)	(90,498,763)	(84,088,425)	(107,670,603)	(105,452,057)	(50,915,923)
Income (loss) before special item	(14,593,918)	(12,000,202)	(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	(14,593,918)	(12,000,202)	(855,978)	(19,527,916)	(16,446,279)	(23,961,211)	(32,382,555)	(4,091,595)
NET POSITION (DEFICIT), Beginning of Year	(109,265,736)	(97,265,534)	(96,409,556)	(76,881,640)	(60,435,361)	(36,474,150)	(4,091,595)	-
NET POSITION (DEFICIT), END OF YEAR	\$ (123,859,654)	\$ (109,265,736)	\$ (97,265,534)	\$ (96,409,556)	\$ (76,881,640)	\$ (60,435,361)	\$ (36,474,150)	\$ (4,091,595)

* GLWA began operations on January 1, 2016. The data for FY 2016 relates to six months of activity through June 30, 2016.

This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

GREAT LAKES WATER AUTHORITY
CHANGES IN NET POSITION - SEWAGE DISPOSAL FUND

Schedule 2b

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016*
Operating Revenues								
Wholesale customer charges	\$ 275,917,502	\$ 268,813,369	\$ 267,567,816	\$ 266,003,286	\$ 272,772,460	\$ 268,978,831	\$ 263,311,745	\$ 121,106,353
Local system charges	191,042,200	188,662,200	187,959,700	185,807,300	181,159,300	178,969,200	187,304,100	95,826,900
Industrial waste charges	8,393,103	8,300,278	8,004,939	7,854,593	9,106,274	14,334,979	14,381,106	6,910,192
Pollutant surcharges	4,894,567	5,181,816	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	1,660,020	429,491	501,121	521,957	506,323	4,391,145	538,807	4,197,614
Total Operating Revenues	481,907,392	471,387,154	470,753,540	466,635,644	469,476,907	473,582,559	505,807,082	230,464,969
Operating Expenses								
Personnel	65,952,676	62,160,768	63,055,636	60,320,195	56,503,053	53,680,162	47,894,911	13,289,741
Contractual services	64,129,786	63,410,109	62,913,214	63,350,953	58,660,680	64,082,761	55,878,440	13,875,756
Utilities	43,839,991	30,930,459	23,921,428	23,432,981	25,147,527	26,823,299	27,191,866	12,668,942
Chemicals	17,852,397	12,593,379	7,953,995	8,672,406	8,187,033	8,073,045	9,424,428	4,006,941
Supplies and other expenses	22,645,561	19,911,985	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	(1,017,340)	(1,013,677)	(1,068,749)	(1,183,398)	(1,325,842)	(969,671)	(1,150,316)	-
Intergovernmental reimbursements	(1,746,945)	(1,074,346)	(612,181)	(1,036,758)	(713,633)	(292,965)	(101,191)	-
Centralized services	-	-	-	-	-	-	-	16,733,431
Administrative services	-	-	-	-	-	-	-	7,342,499
Depreciation	163,470,838	158,013,629	150,772,065	152,920,967	168,544,370	187,250,583	185,628,465	86,021,029
Amortization of intangible assets	439,704	439,704	109,926	-	-	-	-	-
Total Operating Expenses	375,566,668	345,372,010	328,983,415	329,870,427	342,585,175	363,629,987	336,946,731	170,401,050
Operating Income	106,340,724	126,015,144	141,770,125	136,765,217	126,891,732	109,952,572	168,860,351	60,063,919
Nonoperating Revenues (Expenses)								
Earnings (loss) on investments	20,877,345	(3,022,882)	490,706	11,671,932	11,763,401	5,266,255	2,209,872	1,089,367
Interest on obligations receivable	16,397,278	17,157,558	18,247,607	19,489,018	18,856,322	15,505,300	17,062,678	8,831,250
Interest expense	(140,129,194)	(131,110,125)	(135,227,647)	(155,410,235)	(159,893,300)	(161,052,102)	(159,157,152)	(82,489,347)
Amortization of debt related items and COI	(10,579,542)	(2,292,419)	(3,022,639)	(3,956,009)	(6,776,707)	(5,153,300)	(17,340,200)	(363,167)
Legacy pension recovery (expense)	13,321,630	(8,927,171)	(14,452,504)	(12,922,789)	10,763,940	(15,988,471)	(4,504,230)	-
Water Residential Assistance Program	(7,319,076)	(1,742,929)	(924,247)	(1,921,938)	(1,168,664)	(2,248,980)	(1,243,006)	-
Other	1,225,939	(234,915)	(540,045)	(900,162)	466,898	1,760,166	(498,896)	275,693
Discontinued capital projects	-	-	-	-	-	-	-	-
Sewer lookback - MOU adjustment	-	-	-	-	(6,527,200)	-	-	-
Total Nonoperating Expenses	(106,205,620)	(130,172,883)	(135,428,769)	(143,950,183)	(132,515,310)	(161,911,132)	(163,470,934)	(72,656,204)
Income (loss) before capital contributions and special item	135,104	(4,157,739)	6,341,356	(7,184,966)	(5,623,578)	(51,958,560)	5,389,417	(12,592,285)
Capital Contributions	2,176,000	6,991,039	5,960,000	5,960,000	-	-	320,707	2,000,000
Special Item - MOU with DWSD	-	-	-	-	-	-	(61,478,682)	-
Change in Net Position	2,311,104	2,833,300	12,301,356	(1,224,966)	(5,623,578)	(51,958,560)	(55,768,558)	(10,592,285)
NET POSITION (DEFICIT), Beginning of Year	(110,033,291)	(112,866,591)	(125,167,947)	(123,942,981)	(118,319,403)	(66,360,843)	(10,592,285)	-
NET POSITION (DEFICIT), END OF YEAR	\$ (107,722,187)	\$ (110,033,291)	\$ (112,866,591)	\$ (125,167,947)	\$ (123,942,981)	\$ (118,319,403)	\$ (66,360,843)	\$ (10,592,285)

* GLWA began operations on January 1, 2016. The data for FY 2016 relates to six months of activity through June 30, 2016.

This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

REVENUE CAPACITY

Revenue capacity information is intended to show the factors affecting the Authority's ability to generate its own-source revenue.

GREAT LAKES WATER AUTHORITY

Schedule 3

CHARGE ADJUSTMENTS
As Originally Adopted by the Board of Directors

	Fiscal Year								
	2024	2023	2022	2021	2020	2019	2018	2017	2016 [5]
Water Fund									
Budgeted revenue requirement [1]	\$ 370,314,500	\$ 356,071,600	\$ 344,030,500	\$ 341,642,000	\$ 339,664,200	\$ 331,400,500	\$ 328,119,300	\$ 331,213,200	\$ 318,474,200
Percent change in budgeted revenue requirement	4.0%	3.5%	0.7%	0.6%	2.5%	1.0%	-0.9%	4.0%	4.0%
Average annual charge adjustment [2]									
Total regional system	2.75%	3.7%	1.5%	3.2%	0.6%	1.8%	1.8%	4.5%	n/a [6]
Suburban wholesale	2.1%	3.5%	1.9%	3.1%	0.3%	0.2%	2.0%	3.4%	11.3%
Local system charge [3]	6.2%	3.0%	-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	87	87	88	85
Sewage Disposal Fund									
Budgeted revenue requirement [1]	\$ 500,627,000	\$ 481,372,100	\$ 475,429,200	\$ 486,751,300	\$ 480,605,300	\$ 470,156,000	\$ 465,500,100	\$ 464,078,500	\$ 446,229,300
Percent change in budgeted revenue requirement	4.0%	1.3%	-2.3%	1.3%	2.2%	1.0%	0.3%	4.0%	4.0%
Average annual charge adjustment [2]									
Total regional system	2.75%	2.4%	-0.6%	2.0%	0.8%	0.1%	-0.7%	8.3%	n/a [6]
Suburban wholesale	2.6%	3.2%	-0.1%	1.7%	-0.1%	1.3%	1.8%	4.9%	-1.1%
Local system charge [3]	2.8%	1.2%	-0.7%	2.3%	2.5%	1.2%	-4.2%	13.9%	n/a [6]
Number of wholesale sewer customers [4]	18	18	18	18	18	18	18	18	21

[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.

Source: Great Lakes Water Authority Financial Services Area and the Foster Group

This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

GREAT LAKES WATER AUTHORITY

Schedule 4a

WATER FUND OPERATING REVENUES/ LARGEST WATER CUSTOMERS

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016*
Operating Revenues								
Suburban wholesale charges [1]	\$ 340,593,806	\$ 323,026,213	\$ 322,423,768	\$ 312,701,777	\$ 311,399,136	\$ 323,117,344	\$ 331,115,131	\$ 160,777,169
Local system charges	22,834,300	21,697,300	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 revenue	350,991	234,462	265,822	256,300	21,340	64,200	37,388	54,863
Total Operating Revenues	\$ 363,779,097	\$ 344,957,975	\$ 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	93.63%	93.64%	93.56%	93.55%	93.91%	95.51%	94.13%	95.89%
Local system charges % of total operating revenue	6.28%	6.29%	6.36%	6.37%	6.09%	4.47%	4.40%	4.08%
Ten Largest Suburban Wholesale Member Partners								
Southeast Oakland County								
Water Authority	\$ 25,534,464	\$ 24,035,255	\$ 23,722,602	\$ 23,089,967	\$ 23,311,743	\$ 23,118,160	\$ 22,434,129	\$ 11,160,701
North Oakland County Water Authority	24,485,805	22,798,372	22,667,931	22,293,795	23,464,096	23,365,866	22,913,261	11,105,152
Sterling Heights	16,661,863	16,235,356	16,375,729	15,242,912	14,644,368	15,571,146	15,480,008	7,155,303
Shelby Township	16,043,316	14,885,135	15,690,553	14,482,451	13,719,053	13,554,398	13,462,808	6,114,243
Troy	14,538,261	13,811,983	14,324,990	13,607,770	13,700,093	13,842,135	13,939,815	6,058,667
Macomb Township	14,279,105	13,065,395	13,388,385	12,870,377	11,063,225	11,167,739	10,945,117	-
Livonia	12,383,989	11,860,410	11,806,151	11,553,730	14,001,058	13,669,376	13,483,657	6,223,290
West Bloomfield Township	11,824,605	11,229,363	11,010,166	-	10,733,617	-	-	-
Canton Township	11,802,563	-	10,919,607	10,491,407	-	13,334,615	13,872,584	6,032,404
Ypsilanti Community Utilities Authority	11,464,455	11,059,703	-	10,450,861	-	11,038,134	-	-
Warren	-	10,940,909	-	-	10,648,162	-	-	-
Flint [2]	-	-	10,980,526	10,325,345	11,604,504	12,235,483	13,256,330	6,738,009
Genesee County Drain Commission [3]	-	-	-	-	-	-	18,493,530	8,593,304
Novi	-	-	-	-	-	-	-	5,595,031
Total Revenue Ten Largest Suburban Wholesale Member Partners	\$ 159,018,426	\$ 149,921,881	\$ 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	43.71%	43.46%	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.

* GLWA began operations on January 1, 2016. The data for 2016 is for the six months of activity through June 30, 2016.

This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

GREAT LAKES WATER AUTHORITY

Schedule 4b

SEWAGE DISPOSAL FUND OPERATING REVENUES/ LARGEST SEWER CUSTOMERS

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016*
Operating Revenues								
Suburban wholesale charges [1]	\$ 275,917,502	\$ 268,813,369	\$ 267,567,816	\$ 266,003,286	\$ 272,772,460	\$ 268,978,831	\$ 263,311,745	\$ 121,106,353
Local system charges	191,042,200	188,662,200	187,959,700	185,807,300	181,159,300	178,969,200	187,304,100	95,826,900
Industrial waste and surcharges	13,287,670	13,482,094	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	1,660,020	429,491	501,121	521,957	506,323	4,391,145	538,807	4,197,614
Total Operating Revenues	\$ 481,907,392	\$ 471,387,154	\$ 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	57.26%	57.03%	56.84%	57.00%	58.10%	56.80%	52.06%	52.55%
Local system charges % of total operating revenue	39.64%	40.02%	39.93%	39.82%	38.59%	37.79%	37.03%	41.58%
Ten Largest Suburban Wholesale Member Partners								
Oakland-Macomb Interceptor Drainage District	\$ 71,614,874	\$ 70,683,993	\$ 70,355,029	\$ 69,870,786	\$ 77,533,200	\$ 72,816,000	\$ 69,627,600	\$ 34,541,400
Wayne County - Rouge Valley	55,930,800	55,267,200	54,536,400	54,162,000	53,761,200	55,022,400	55,486,800	25,901,400
Oakland County - George W Kuhn Drainage District	46,377,600	45,828,000	45,558,000	45,264,000	44,972,400	45,751,200	45,682,800	21,410,400
Evergreen Farmington	36,195,600	35,766,000	35,084,400	34,839,600	34,578,000	33,733,200	32,179,200	15,094,200
Southeast Macomb Sanitary District	25,070,400	24,772,800	25,000,800	24,837,600	24,672,000	24,637,200	24,120,000	11,501,400
Dearborn	20,299,200	20,058,000	19,628,400	19,502,400	19,372,800	19,628,400	19,603,200	8,049,000
Highland Park	5,420,400	5,356,800	5,708,400	5,670,000	5,614,800	5,642,400	5,818,800	2,808,600
Hamtramck	4,041,600	3,993,600	4,019,400	3,994,800	3,962,400	3,958,800	4,086,000	1,966,800
Grosse Pointe Farms	2,748,000	2,715,600	2,769,000	2,750,400	2,727,600	2,696,400	2,667,600	1,243,800
Grosse Pointe Park	1,904,400	1,882,800	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	\$ 269,602,874	\$ 266,324,793	\$ 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	55.94%	56.50%	56.18%	56.30%	57.30%	56.09%	51.58%	53.48%

[1] Net of bad debt expense.

* GLWA began operations on January 1, 2016. The data for 2016 is for the six months of activity through June 30, 2016.

This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

GREAT LAKES WATER AUTHORITY

Schedule 5

WATER SYSTEM SERVICE CHARGES*

Community Name	Fixed Monthly Charge	Commodity \$/Mcf	Community Name	Fixed Monthly Charge	Commodity \$/Mcf
Allen Park	\$ 136,800	\$ 7.52	Mayfield Township	\$ 2,200	\$ 34.12
Almont, Village of	13,000	10.84	Melvindale	35,000	6.66
Ash Township	45,100	8.56	New Haven, Village of	20,300	8.83
Belleville	17,900	9.41	North Oakland County Water Authority	1,192,200	10.89
Berlin Township	39,900	11.75	Northville, City	41,900	10.77
Brownstown Township	195,700	11.49	Northville Township	306,100	17.72
Bruce Township	18,700	56.29	Novi	490,900	13.42
Canton Township	563,000	12.52	Oak Park	75,300	6.35
Center Line	25,600	6.38	Oakland County Drain Commission	4,400	3.64
Chesterfield Township	233,100	10.56	Plymouth, City	59,000	10.59
Clinton Township	409,600	8.21	Plymouth Township	240,700	11.96
Commerce Township	195,300	14.96	Redford Township	171,300	8.64
Dearborn	548,800	7.46	River Rouge	37,000	7.81
Dearborn Heights	199,200	8.08	Riverview	48,100	8.02
Eastpointe	84,600	6.49	Rockwood	15,000	12.33
Ecorse	78,400	4.94	Romeo	14,100	18.33
Farmington	54,700	9.79	Romulus	233,200	8.34
Farmington Hills	478,200	10.95	Roseville	145,500	6.24
Ferndale	56,400	6.27	Royal Oak Township	10,500	8.14
Flat Rock	69,600	10.65	Shelby Township	781,200	15.14
Flint (1)	577,300	9.84	Southeastern Oakland County Water Authority	1,242,900	8.08
Fraser	65,900	9.06	South Rockwood	6,200	10.74
Garden City	89,600	9.16	Southgate	118,700	8.49
Gibraltar	18,100	8.83	St. Clair County-Burtchville Township	18,800	17.95
Grosse Ile Township	59,500	12.49	St. Clair County-Greenwood Energy Center	71,400	22.78
Grosse Pointe Park	72,800	10.60	St. Clair Shores	168,200	6.92
Grosse Pointe Shores	35,100	14.65	Sterling Heights	836,700	11.32
Grosse Pointe Woods	68,700	7.91	Sumpter Township	37,100	9.80
Hamtramck	43,500	5.58	Sylvan Lake	12,700	15.92
Harper Woods	43,600	7.38	Taylor	250,800	7.75
Harrison Township	88,100	7.38	Trenton	91,600	8.47
Hazel Park	39,900	6.36	Troy	738,900	12.71
Highland Park	62,900	4.76	Utica	30,100	10.44
Huron Township	80,800	10.43	Van Buren Township	191,100	11.28
Imlay City	79,900	13.82	Walled Lake	43,000	11.51
Imlay Township	800	45.33	Warren	558,100	7.22
Inkster	69,300	5.47	Washington Township	127,400	12.46
Keego Harbor	16,300	12.99	Wayne	174,700	13.26
Lapeer	83,600	12.64	West Bloomfield Township	567,600	17.03
Lenox Township	15,700	8.99	Westland	335,100	8.32
Lincoln Park	126,300	6.11	Wixom	134,800	14.32
Livonia	620,700	10.54	Woodhaven	90,900	12.57
Macomb Township	682,100	17.01	Ypsilanti Community Utilities Authority	563,400	9.34
Madison Heights	100,400	7.64			

Annual Detroit Wholesale Revenue Requirement \$22,834,300

* Water charges went into effect July 1, 2022. Amounts reflect the amended charges approved by the GLWA Board of Director's on June 2, 2022.

(1) Net fixed monthly charge will include \$554,300 monthly credits for KWA debt service

GREAT LAKES WATER AUTHORITY
SEWAGE DISPOSAL SYSTEM SERVICE CHARGES*

Schedule 6

Community Name	Fixed Monthly Charge
Oakland-Macomb Interceptor District (OMID)	\$ 5,942,700
Rouge Valley	4,660,900
Oakland County - George W. Kuhn (GWK)	3,864,800
Evergreen Farmington	3,016,300
SE Macomb Sanitary District	2,089,200
Dearborn	1,691,600
Grosse Pointe Farms	229,000
Grosse Pointe Park	158,700
Melvindale	131,200
Farmington	99,900
Center Line	86,900
Allen Park	70,700
Highland Park	451,700
Hamtramck	336,800
Grosse Pointe	75,000
Harper Woods	18,200
Redford Township	22,600
Wayne County #3	4,400

Annual Detroit Wholesale Revenue Requirement \$191,042,200

* Wholesale charges went into effect July 1, 2022. Amounts reflect the amended charges approved by the GLWA Board of Director's on June 2, 2022.

GREAT LAKES WATER AUTHORITY

**INDUSTRIAL WASTE CONTROL CHARGES AND POLLUTANT SURCHARGES
EFFECTIVE JULY 1, 2022**

Industrial Waste Control Charges

Meter size (inches)	Admin Only Charge (1)	Monthly Charge (2)
5/8	\$ 0.90	\$ 3.58
3/4	\$ 1.34	\$ 5.37
1	\$ 2.24	\$ 8.95
1 1/2	\$ 4.92	\$ 19.69
2	\$ 7.16	\$ 28.64
3	\$ 12.98	\$ 51.91
4	\$ 17.90	\$ 71.60
6	\$ 26.85	\$ 107.40
8	\$ 44.75	\$ 179.00
10	\$ 62.65	\$ 250.60
12	\$ 71.60	\$ 286.40
14	\$ 89.50	\$ 358.00
16	\$ 107.40	\$ 429.60
18	\$ 125.30	\$ 501.20
20	\$ 143.20	\$ 572.80
24	\$ 161.10	\$ 644.40
30	\$ 179.00	\$ 716.00
36	\$ 196.90	\$ 787.60
48	\$ 214.80	\$ 859.20

(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 partners.

Pollutant Surcharges

Pollutant		Charge per Pound
Biochemical Oxygen Demand (BOD)	for concentrations > 275 mg/l	\$ 0.351
Total Suspended Solids (TSS)	for concentrations > 350 mg/l	\$ 0.482
Phosphorus (P)	for concentrations > 12 mg/l	\$ 6.448
Fats, Oil and Grease (FOG)	for concentrations > 100 mg/l	\$ 0.112
Septage Disposal Fee	per 500 gallons of disposal	\$ 36.00

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DEBT CAPACITY

Debt capacity information is intended to show the Authority's debt burden and its ability to issue additional debt.

GREAT LAKES WATER AUTHORITY

Schedule 8

RATIOS OF OUTSTANDING DEBT BY TYPE

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016
Water Fund								
Revenue bonds [1]	\$ 2,447,181,498	\$ 2,289,900,079	\$ 2,368,632,473	\$ 2,453,471,088	\$ 2,466,561,092	\$ 2,540,663,196	\$ 2,612,607,101	\$ 2,507,091,038
State revolving loans	207,356,808	109,429,462	71,259,601	39,318,264	29,860,802	25,435,902	17,252,235	17,383,761
Raw water rights obligation	92,515,774	95,361,056	98,095,302	100,720,122	103,241,119	106,240,576	-	-
BC Note obligation	16,338,339	16,542,293	16,736,535	16,921,526	17,097,709	17,265,503	17,425,306	17,577,499
Total Water Fund	\$ 2,763,392,419	\$ 2,511,232,890	\$ 2,554,723,911	\$ 2,610,431,000	\$ 2,616,760,722	\$ 2,689,605,177	\$ 2,647,284,642	\$ 2,542,052,298
Sewage Disposal Fund								
Revenue bonds [1]	\$ 2,636,761,869	\$ 2,498,387,185	\$ 2,577,642,399	\$ 2,643,788,368	\$ 2,764,196,915	\$ 2,739,090,653	\$ 2,797,168,264	\$ 2,922,089,599
Capital appreciation bonds [1]	-	-	5,504,069	10,667,560	13,377,972	14,984,042	19,501,737	19,668,138
State revolving loans	349,919,118	379,648,216	416,767,850	449,666,531	474,177,128	475,677,540	485,267,036	506,435,742
BC Note obligation	36,750,112	37,208,869	37,645,780	38,061,886	38,458,177	38,835,597	39,195,045	39,537,376
Total Sewage Disposal Fund	\$ 3,023,431,099	\$ 2,915,244,270	\$ 3,037,560,098	\$ 3,142,184,345	\$ 3,290,210,192	\$ 3,268,587,832	\$ 3,341,132,082	\$ 3,487,730,855
Total taxable value [2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total population served [3]:								
Water	3,800,000	3,800,000	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	2,800,000	2,800,000
Total debt per capita:								
Water	\$ 727	\$ 661	\$ 672	\$ 687	\$ 689	\$ 708	\$ 697	\$ 669
Sewage disposal	\$ 1,080	\$ 1,041	\$ 1,085	\$ 1,122	\$ 1,175	\$ 1,167	\$ 1,193	\$ 1,246
Per capita income [4]	\$ 66,285	\$ 62,274	\$ 60,965	\$ 57,755	\$ 53,428	\$ 51,823	\$ 49,809	\$ 48,605
Total debt as a percentage of income:								
Water	1.10%	1.06%	1.10%	1.19%	1.29%	1.37%	1.40%	1.38%
Sewage disposal	1.63%	1.67%	1.78%	1.94%	2.20%	2.25%	2.40%	2.56%

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

[2] 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.

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

[4] Source: FRED Economic Data, St. Louis Fed and Michigan State University Center for Economic Analysis. (Prior year amounts have been updated to match current data from FRED)

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.

GREAT LAKES WATER AUTHORITY

Schedule 9

DEBT BY LIEN
As of June 30, 2023

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	Original Principal Amount [1]	Outstanding as of June 30, 2023
Water Supply System Revenue Bonds		
Senior Lien Bonds		
Water Supply System Revenue Senior Lien Bonds, Series 2003A	\$ 234,805,000	\$ 100,000
Water Supply System Revenue Senior Lien Bonds, Series 2005B	194,900,000	100,000
Water Supply System Revenue Senior Lien Bonds, Series 2006A	280,000,000	100,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2014D-1	206,540,000	44,190,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2014D-2	188,455,000	182,480,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2014D-4	307,645,000	209,360,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2015D-1	89,430,000	69,275,000
Water Supply System Revenue Senior Lien Bonds, Series 2016A	88,000,000	87,990,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2016C	443,930,000	439,065,000
Water Supply System Revenue Senior Lien Bonds, Series 2020A	42,445,000	42,445,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2020C	377,515,000	375,645,000
Water Supply System Revenue Senior Lien Bonds, Series 2022A	137,470,000	137,470,000
Total Senior Lien Bonds	<u>2,591,135,000</u>	<u>1,588,220,000</u>
Second Lien Bonds		
Water Supply System Revenue Second Lien Bonds, Series 2003B	172,945,000	100,000
Water Supply System Revenue Second Lien Bonds, Series 2006B	120,000,000	100,000
Water Supply System Revenue Refunding Second Lien Bonds, Series 2014D-6	65,425,000	45,820,000
Water Supply System Revenue Refunding Second Lien Bonds, Series 2015D-2	37,235,000	37,235,000
Water Supply System Revenue Second Lien Bonds, Series 2016B	163,830,000	163,820,000
Water Supply System Revenue Refunding Second Lien Bonds, Series 2016D	222,045,000	222,045,000
Water Supply System Revenue Refunding Second Lien Bonds, Series 2018A	155,595,000	109,040,000
Water Supply System Revenue Second Lien Bonds, Series 2020B	43,135,000	43,135,000
Water Supply System Revenue Second Lien Bonds, Series 2022B	69,745,000	69,745,000
Total Second Lien Bonds	<u>1,049,955,000</u>	<u>691,040,000</u>
SRF Junior Lien Bonds		
Water Supply System Revenue Bonds, Series 2005 SRF-1	13,805,164	3,130,164
Water Supply System Revenue Bonds, Series 2005 SRF-2	8,891,730	1,976,730
Water Supply System Revenue Bonds, Series 2006 SRF-1	5,180,926	1,165,926
Water Supply System Revenue Bonds, Series 2008 SRF-1	2,590,941	650,941
Water Supply System Revenue Bonds, Series 2016 SRF-1	8,273,168	7,258,168
Water Supply System Revenue Bonds, Series 2016 SRF-2	3,393,543	2,968,543
Water Supply System Revenue Bonds, Series 2017 SRF-1	5,807,931	5,192,931
Water Supply System Revenue Bonds, Series 2019 SRF-1	8,330,000	7,635,000
Water Supply System Revenue Bonds, Series 2019 SRF-2	29,950,000	27,824,226
Water Supply System Revenue Bonds, Series 2019 SRF-3	11,788,056	7,447,932
Water Supply System Revenue Bonds, Series 2020 SRF-1	20,538,700	19,514,960
Water Supply System Revenue Bonds, Series 2020 SRF-2	9,000,000	6,940,958
Water Supply System Revenue Bonds, Series 2020 SRF-3	8,960,000	7,909,220
Water Supply System Revenue Bonds, Series 2020 SRF-4	12,153,050	8,832,593
Water Supply System Revenue Bonds, Series 2021 SRF-1	11,940,000	4,209,249
Water Supply System Revenue Bonds, Series 2021 SRF-2	104,725,000	50,945,907
Water Supply System Revenue Bonds, Series 2021 SRF-3	11,528,950	9,678,360
Water Supply System Revenue Bonds, Series 2022 SRF-2	34,075,000	34,075,000
Total SRF Junior Lien Bonds	<u>310,932,159</u>	<u>207,356,808</u>
TOTAL WATER SUPPLY SYSTEM REVENUE BONDS	<u>\$ 3,952,022,159</u>	<u>\$ 2,486,616,808</u>

GREAT LAKES WATER AUTHORITY

Schedule 9

DEBT BY LIEN
As of June 30, 2023

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	Original Principal Amount [1]	Outstanding as of June 30, 2023
Sewage Disposal System Revenue Bonds		
Senior Lien Bonds		
Sewage Disposal System Senior Lien Revenue Bonds, Series 2003B	\$ 150,000,000.00	\$ 100,000.00
Sewage Disposal System Senior Lien Revenue Refunding Bonds, Series 2004A	101,435,000	11,095,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2006D	370,000,000	239,475,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2014C-3	446,170,000	347,585,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2014C-6	143,880,000	88,900,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2016B	126,105,000	126,105,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2018A	81,595,000	77,345,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2018B	131,690,000	131,690,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2018C	44,180,000	31,260,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2020A	594,930,000	594,930,000
Sewage Disposal System Senior Lien Revenue Bonds, Series 2022A	125,975,000	125,975,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2022C	12,490,000	12,490,000
Total Senior Lien Bonds	<u>2,328,450,000</u>	<u>1,786,950,000</u>
Second Lien Bonds		
Sewage Disposal System Second Lien Revenue Bonds, Series 2001B	110,550,000	78,895,000
Sewage Disposal System Revenue Second Lien Bonds, Series 2005A	273,355,000	100,000
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2005C	63,160,000	100,000
Sewage Disposal System Revenue Second Lien Bonds, Series 2006B	250,000,000	100,000
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2014C-7	76,715,000	48,800,000
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2015C	197,660,000	197,160,000
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2016C	295,190,000	295,190,000
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2020B	92,525,000	81,850,000
Sewage Disposal System Revenue Second Lien Bonds, Series 2022B	71,990,000	71,990,000
Total Second Lien Bonds	<u>1,431,145,000</u>	<u>774,185,000</u>

GREAT LAKES WATER AUTHORITY

Schedule 9

DEBT BY LIEN
As of June 30, 2023

Continued From
Previous Page

	Original Principal Amount [1]	Outstanding as of June 30, 2023
Sewage Disposal System Revenue Bonds (cont.)		
SRF Junior Lien Bonds		
Sewage Disposal System Revenue Bonds, Series 2001 SRF-1	\$ 82,200,000	\$ 10,190,000
Sewage Disposal System Revenue Bonds, Series 2001 SRF-2	59,850,000	7,420,000
Sewage Disposal System Revenue Bonds, Series 2002 SRF-3	31,549,466	3,594,466
Sewage Disposal System Revenue Bonds, Series 2003 SRF-1	48,520,000	8,910,000
Sewage Disposal System Revenue Bonds, Series 2003 SRF-2	25,055,370	3,080,370
Sewage Disposal System Revenue Bonds, Series 2004 SRF-1	2,910,000	350,000
Sewage Disposal System Revenue Bonds, Series 2004 SRF-2	18,353,459	2,203,459
Sewage Disposal System Revenue Bonds, Series 2004 SRF-3	12,722,575	1,517,575
Sewage Disposal System Revenue Bonds, Series 2007 SRF-1	167,540,598	64,885,598
Sewage Disposal System Revenue Bonds, Series 2009 SRF-1	13,970,062	5,500,062
Sewage Disposal System Revenue Bonds, Series 2010 SRF-1	4,214,763	1,910,763
Sewage Disposal System Revenue Bonds, Series 2012 SRF-1	14,950,000	9,840,000
Sewage Disposal System Revenue Bonds, Series 2015A SRF	79,500,000	56,015,000
Sewage Disposal System Revenue Bonds, Series 2015B SRF	27,175,304	18,795,304
Sewage Disposal System Revenue Bonds, Series 2015D SRF	15,321,478	10,391,478
Sewage Disposal System Revenue Bonds, Series 2016 SAW-1	10,000,000	8,380,000
Sewage Disposal System Revenue Bonds, Series 2016 SRF-1	15,463,628	12,133,628
Sewage Disposal System Revenue Bonds, Series 2016 SRF-2	48,315,683	40,045,683
Sewage Disposal System Revenue Bonds, Series 2017 SRF-1	33,566,682	28,196,682
Sewage Disposal System Revenue Bonds, Series 2018 SRF-2	17,510,000	17,510,000
Sewage Disposal System Revenue Bonds, Series 2020 SRF-1	28,350,000	22,086,744
Sewage Disposal System Revenue Bonds, Series 2020 SRF-2	3,232,000	843,067
Sewage Disposal System Revenue Bonds, Series 2021 SRF-1	12,940,000	7,438,078
Sewage Disposal System Revenue Bonds, Series 2021 SRF-2	6,881,250	-
Sewage Disposal System Revenue Bonds, Series 2022 SRF-1	34,195,000	-
Sewage Disposal System Revenue Bonds, Series 2022 SRF-2	50,245,000	5,630,308
Sewage Disposal System Revenue Bonds, Series 2022 SRF-3	19,035,000	3,050,853
Sewage Disposal System Revenue Bonds, Series 2023 SRF-1	88,820,000	-
Total SRF Junior Lien Bonds	<u>972,387,318</u>	<u>349,919,118</u>
TOTAL SEWAGE DISPOSAL SYSTEM REVENUE BONDS	<u>\$ 4,731,982,318</u>	<u>\$ 2,911,054,118</u>

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

GREAT LAKES WATER AUTHORITY

Schedule 10

SCHEDULE OF DEBT SERVICE REQUIREMENTS
As of June 30, 2023

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Fiscal Year Ending [1]	Senior Lien Bonds (\$000)			Second Lien Bonds (\$000)			Junior Lien Bonds (\$000)			All Bonds (\$000)
	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Total Debt Service
Water Fund										
2024 [2]	\$27,280	\$60,003	\$87,283	\$12,970	\$31,622	\$44,592	\$6,985	\$4,099	\$11,084	\$142,960
2025	64,210	70,597	134,807	18,380	32,915	51,295	12,454	3,889	16,343	202,445
2026	67,320	67,666	134,986	19,475	31,969	51,444	12,710	3,642	16,352	202,781
2027	70,355	64,412	134,767	20,450	30,970	51,420	12,953	3,390	16,343	202,530
2028	73,835	61,037	134,872	21,475	29,922	51,397	11,560	3,150	14,710	200,980
2029	77,435	57,531	134,966	22,795	28,816	51,611	11,801	2,924	14,725	201,301
2030	81,190	53,692	134,882	23,930	27,647	51,577	11,885	2,694	14,579	201,039
2031	85,115	49,648	134,763	27,935	26,351	54,286	12,130	2,462	14,592	203,640
2032	89,285	45,390	134,675	29,330	24,919	54,249	12,334	2,225	14,559	203,483
2033	93,635	40,916	134,551	30,800	23,559	54,359	12,045	1,989	14,034	202,943
2034	87,550	36,435	123,985	42,720	22,065	64,785	12,265	1,753	14,018	202,788
2035	95,855	31,870	127,725	40,530	20,186	60,716	10,731	1,529	12,260	200,701
2036	123,660	26,400	150,060	15,270	18,791	34,061	7,390	1,351	8,741	192,862
2037	20,540	22,903	43,443	124,865	15,287	140,152	7,530	1,203	8,733	192,328
2038	61,925	21,175	83,100	6,120	12,012	18,132	7,690	1,052	8,742	109,974
2039	66,240	18,654	84,894	4,755	11,740	16,495	7,835	898	8,733	110,122
2040	71,880	16,125	88,005	1,765	11,577	13,342	7,526	745	8,271	109,618
2041	74,550	13,410	87,960	1,850	11,487	13,337	7,339	595	7,934	109,230
2042	76,020	10,613	86,633	1,945	11,392	13,337	5,344	457	5,801	105,771
2043	27,200	8,509	35,709	31,665	10,551	42,216	4,355	351	4,706	82,631
2044	25,300	7,177	32,477	36,395	8,846	45,241	2,048	266	2,314	80,032
2045	26,575	5,863	32,438	38,225	6,972	45,197	1,980	223	2,203	79,838
2046	27,920	4,483	32,403	40,140	5,005	45,145	2,030	179	2,209	79,757
2047	29,340	3,033	32,373	42,155	2,938	45,093	1,598	135	1,732	79,199
2048	10,525	2,017	12,542	6,450	1,714	8,164	1,617	99	1,716	22,422
2049	7,720	1,545	9,265	6,860	1,366	8,226	1,098	63	1,161	18,651
2050	8,115	1,136	9,251	7,215	993	8,208	865	42	907	18,366
2051	5,585	780	6,365	4,600	675	5,275	880	25	905	12,545
2052	5,875	479	6,354	4,855	415	5,270	380	8	388	12,012
2053	6,185	162	6,347	5,120	141	5,261	-	-	-	11,608
Total	\$1,588,220	\$803,660	\$2,391,880	\$691,040	\$462,844	\$1,153,884	\$207,357	\$41,435	\$248,792	\$3,794,557

GREAT LAKES WATER AUTHORITY

Schedule 10

SCHEDULE OF DEBT SERVICE REQUIREMENTS
As of June 30, 2023

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Fiscal Year Ending [1]	Senior Lien Bonds (\$000)			Second Lien Bonds (\$000)			Junior Lien Bonds (\$000)			All Bonds (\$000)
	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Total Debt Service
Sewage Disposal Fund										
2024 [2]	\$40,550	\$63,381	\$103,931	\$2,015	\$31,145	\$33,160	\$40,360	\$7,540	\$47,900	\$184,991
2025	82,615	71,810	154,425	16,035	36,809	52,844	44,156	6,620	50,776	258,045
2026	85,100	68,048	153,148	17,210	35,920	53,130	30,385	5,766	36,151	242,429
2027	91,115	63,742	154,857	21,260	34,898	56,158	27,170	5,154	32,324	243,339
2028	95,355	59,413	154,768	26,025	33,652	59,677	26,016	4,581	30,596	245,041
2029	102,795	54,948	157,743	27,170	32,255	59,425	25,908	4,028	29,936	247,104
2030	114,800	49,923	164,723	20,415	30,995	51,410	26,241	3,478	29,718	245,851
2031	109,495	44,603	154,098	33,130	29,620	62,750	16,096	2,998	19,093	235,942
2032	113,375	39,540	152,915	34,785	27,922	62,707	16,090	2,608	18,698	234,320
2033	131,210	34,797	166,007	22,555	26,489	49,044	16,500	2,219	18,719	233,770
2034	133,095	29,148	162,243	26,590	25,284	51,874	16,930	1,819	18,749	232,867
2035	54,305	24,658	78,963	113,150	22,119	135,269	17,400	1,410	18,810	233,041
2036	12,190	23,212	35,402	162,800	15,914	178,714	16,405	1,004	17,409	231,525
2037	12,530	22,809	35,339	170,230	8,174	178,404	8,790	641	9,431	223,174
2038	118,255	20,691	138,946	1,695	4,083	5,778	8,934	433	9,366	154,090
2039	118,130	16,904	135,034	5,695	3,922	9,617	8,112	220	8,333	152,984
2040	126,030	12,978	139,008	1,815	3,759	5,574	1,337	75	1,412	145,994
2041	32,680	10,250	42,930	1,880	3,692	5,572	1,010	52	1,062	49,564
2042	34,035	8,868	42,903	1,950	3,623	5,573	1,030	31	1,061	49,537
2043	35,450	7,425	42,875	2,020	3,552	5,572	1,050	11	1,061	49,507
2044	35,375	5,962	41,337	3,615	3,437	7,052	-	-	-	48,389
2045	36,615	4,479	41,094	3,775	3,278	7,053	-	-	-	48,147
2046	14,260	3,356	17,616	1,700	3,152	4,852	-	-	-	22,468
2047	15,000	2,599	17,599	1,795	3,061	4,856	-	-	-	22,454
2048	15,780	1,803	17,583	1,895	2,964	4,859	-	-	-	22,441
2049	9,025	1,164	10,189	9,485	2,653	12,138	-	-	-	22,327
2050	4,105	826	4,931	10,010	2,117	12,127	-	-	-	17,058
2051	4,325	605	4,930	10,565	1,551	12,116	-	-	-	17,046
2052	4,555	372	4,927	11,150	954	12,104	-	-	-	17,031
2053	4,800	126	4,926	11,770	324	12,094	-	-	-	17,020
Total	\$1,786,950	\$748,437	\$2,535,387	\$774,185	\$437,316	\$1,211,501	\$349,919	\$50,689	\$400,608	\$4,147,496

[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, 2023 are not included in the debt service requirement amounts above as they were paid on June 26, 2023.

Schedule may not foot due to rounding

GREAT LAKES WATER AUTHORITY

DEBT CREDIT RATING HISTORY

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016
Water Supply System Revenue								
Standards & Poor's								
Senior Lien	AA-	AA-	AA-	AA-	AA-	A-	A-	A-
Second Lien	A+	A+	A+	A+	A+	BBB+	BBB+	BBB+
Junior Lien	A+	A+	A+	A+	A+	N/A	N/A	N/A
Moody's								
Senior Lien	A1	A1	A1	A1	A2	A3	A3	Baa1
Second Lien	A2	A2	A2	A2	A3	Baa1	Baa1	Baa2
Fitch								
Senior Lien	A+	A+	A+	A+	A	A	A	BBB
Second Lien	A	A	A	A	A-	A-	A-	BBB-
Sewage Disposal System Revenue								
Standard's & Poor's								
Senior Lien	AA-	AA-	AA-	AA-	A+	A-	A-	A-
Second Lien	A+	A+	A+	A+	A	BBB+	BBB+	BBB+
Junior Lien	A+	A+	A+	A+	A	N/A	N/A	N/A
Moody's								
Senior Lien	A1	A1	A1	A1	A2	A3	A3	Baa1
Second Lien	A2	A2	A2	A2	A3	Baa1	Baa1	Baa2
Fitch								
Senior Lien	A+	A+	A+	A+	A	A	A	BBB
Second Lien	A	A	A	A	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.

CALCULATION OF DEBT SERVICE COVERAGE - OVERVIEWAs of June 30, 2023

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.

Debt service coverage ratios are presented using both (a) the GAAP methodology which calculates pledged revenue on an accrual basis and (b) the Rate Covenant methodology which calculates pledged revenue on a cash basis.

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 and state revolving loans held on behalf of both GLWA and DWSD.

GREAT LAKES WATER AUTHORITY

Schedule 12a

DEBT SERVICE COVERAGE - GAAP BASIS - WATER SYSTEM

	Fiscal Year							
	2023	2022 [8]	2021	2020	2019	2018	2017	2016 [1]
GLWA Revenues								
Wholesale customer charges	\$ 340,593,806	\$ 323,026,213	\$ 322,423,768	\$ 312,701,777	\$ 311,399,136	\$ 323,117,344	\$ 336,222,256	\$ 160,777,169
KWA debt service credits	(6,452,573)	(6,496,428)	(6,652,253)	(6,652,348)	(6,979,503)	(3,176,073)	-	-
DWSD Local System charges	22,834,300	21,697,300	21,925,500	21,295,500	20,181,400	15,130,600	15,490,300	6,833,500
Other revenue	1,378,706	775,537	267,562	1,912,636	21,340	64,200	37,388	54,863
Earnings on investments [2]	9,161,614	1,945,613	4,195,305	9,115,115	11,818,203	4,489,397	1,348,898	520,891
Total GLWA Revenues	367,515,853	340,948,235	342,159,882	338,372,680	336,440,576	339,625,468	353,098,842	168,186,423
DWSD Local System Revenues [7]								
Local System revenues [3]	107,558,342	83,591,720	67,464,986	73,817,339	69,777,041	83,983,786	69,680,402	183,279,645
Other Revenue	1,749,998	2,349,445	1,958,151	7,289,468	1,013,276	1,635,430	5,265,229	2,074,095
Total DWSD Local System Revenues	109,308,340	85,941,165	69,423,137	81,106,807	70,790,317	85,619,216	74,945,631	185,353,740
Total Revenue	476,824,193	426,889,400	411,583,019	419,479,487	407,230,893	425,244,684	428,044,473	353,540,163
Operating Costs								
GLWA operating expenses	155,167,048	137,815,968	123,638,092	132,532,838	119,821,946	108,530,383	101,730,949	49,545,659
GASB 96 expenditures [4]	2,282,630	413,924	-	-	-	-	-	-
O&M transfers:								
DWSD Local System operations	42,581,600	29,989,000	35,833,900	34,662,400	35,484,300	35,059,704	33,596,400	22,444,800
Legacy Pension Regional System [5]	6,048,000	6,048,000	6,048,000	6,048,000	6,048,000	6,048,000	6,048,000	3,024,000
Legacy Pension DWSD Local System [5]	4,272,000	4,272,000	4,272,000	4,272,000	4,272,000	4,272,000	4,272,000	2,136,000
Total Operating Costs	210,351,278	178,538,892	169,791,992	177,515,238	165,626,246	153,910,087	145,647,349	77,150,459
Pledged Revenue	\$ 266,472,915	\$ 248,350,508	\$ 241,791,027	\$ 241,964,249	\$ 241,604,647	\$ 271,334,597	\$ 282,397,124	\$ 276,389,704
Principal and interest funding requirement [6]:								
Senior lien bonds	\$ 133,773,102	\$ 124,309,692	\$ 123,798,304	\$ 122,318,928	\$ 119,230,820	\$ 127,687,420	\$ 134,234,660	\$ 128,177,999
Second lien bonds	50,117,190	46,840,350	51,731,158	47,849,350	46,214,385	42,852,813	38,990,023	41,178,843
Total senior and second lien bonds	183,890,292	171,150,042	175,529,462	170,168,278	165,445,205	170,540,233	173,224,683	169,356,842
Junior lien bonds	8,910,595	5,439,273	3,684,917	2,700,795	2,521,249	2,009,658	1,785,328	1,781,683
Total All Bonds	\$ 192,800,887	\$ 176,589,315	\$ 179,214,379	\$ 172,869,073	\$ 167,966,454	\$ 172,549,891	\$ 175,010,011	\$ 171,138,525
GAAP Basis Debt Service Coverage								
Senior lien bonds	1.99	2.00	1.95	1.98	2.03	2.12	2.10	2.16
Senior and second lien bonds	1.45	1.45	1.38	1.42	1.46	1.59	1.63	1.63
All bonds, including SRF junior lien	1.38	1.41	1.35	1.40	1.44	1.57	1.61	1.62

[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] Excludes investment earnings on bond proceeds in construction fund.

[3] Local Service Revenue reported net of bad debt expense.

[4] Amounts recorded under GASB 96 for financial reporting purposes are treated as operating expenditures for budget purposes and the debt service coverage calculation.

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

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

[7] At the time of the issuance of the GLWA financial report, DWSD's audited financial report had not been released. Amounts used were provided by DWSD's management of the preliminary financial results for the year ended June 30, 2023.

[8] DWSD local system revenues for 2022 were based on DWSD preliminary financial results. Amounts have been updated to actual.

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

GREAT LAKES WATER AUTHORITY

DEBT SERVICE COVERAGE - RATE COVENANT BASIS - WATER SYSTEM

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016 [1]
GLWA Receipts								
Wholesale System receipts	\$ 332,337,913	\$ 313,964,381	\$ 310,032,178	\$ 303,568,071	\$ 308,690,722	\$ 319,728,881	\$ 336,362,250	
DWSD Local System charges	22,834,300	21,697,300	21,925,500	21,295,500	20,181,400	15,130,600	15,490,300	
Investment Earnings	8,163,261	2,456,013	4,684,353	7,742,625	7,722,112	3,592,524	579,546	
Total GLWA Receipts	363,335,474	338,117,694	336,642,031	332,606,196	336,594,234	338,452,005	352,432,096	
DWSD Local System Receipts	98,010,223	80,267,663	80,141,924	75,590,223	79,686,819	85,962,882	80,960,806	
Total Receipts	461,345,697	418,385,357	416,783,955	408,196,419	416,281,053	424,414,887	433,392,902	
Operation and Maintenance Transfers								
GLWA Regional System operations [2]	156,747,700	143,933,800	124,167,627	126,188,192	116,356,994	114,426,522	105,431,843	
DWSD Local System operations	42,581,600	29,989,000	35,833,900	34,662,400	35,484,300	35,059,704	33,596,400	
Legacy Pension Regional System [3]	6,048,000	6,048,000	6,048,000	6,048,000	6,048,000	6,048,000	6,048,000	
Legacy Pension DWSD Local System [3]	4,272,000	4,272,000	4,272,000	4,272,000	4,272,000	4,272,000	4,272,000	
Total Operations and Maintenance Transfers	209,649,300	184,242,800	170,321,527	171,170,592	162,161,294	159,806,226	149,348,243	
Pledged Revenue	\$ 251,696,397	\$ 234,142,557	\$ 246,462,428	\$ 237,025,827	\$ 254,119,759	\$ 264,608,661	\$ 284,044,659	
Principal and interest funding requirement [4]:								
Senior lien bonds	\$ 133,773,102	\$ 124,309,692	\$ 123,798,304	\$ 122,318,928	\$ 119,230,820	\$ 127,687,420	\$ 134,234,660	
Second lien bonds	50,117,190	46,840,350	51,731,158	47,849,350	46,214,385	42,852,813	38,990,023	
Total senior and second lien bonds	183,890,292	171,150,042	175,529,462	170,168,278	165,445,205	170,540,233	173,224,683	
Junior lien bonds	8,910,595	5,439,273	3,684,917	2,700,795	2,521,249	2,009,658	1,785,328	
Total All Bonds	\$ 192,800,887	\$ 176,589,315	\$ 179,214,379	\$ 172,869,073	\$ 167,966,454	\$ 172,549,891	\$ 175,010,011	
Rate Covenant Basis Debt Service Coverage								
Senior lien bonds	1.88	1.88	1.99	1.94	2.13	2.07	2.12	
Senior and second lien bonds	1.37	1.37	1.40	1.39	1.54	1.55	1.64	
All bonds, including SRF junior lien	1.31	1.33	1.38	1.37	1.51	1.53	1.62	

[1] GLWA started operations on January 1, 2016. Due to the bifurcation from DWSD the Rate Covenant Basis cannot be computed for 2016.

[2] For years prior to 2022 a different methodology was used. A calculation was performed to determine the cash basis disbursements from the operations fund.

[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.

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

GREAT LAKES WATER AUTHORITY

DEBT SERVICE COVERAGE - GAAP BASIS - SEWAGE DISPOSAL SYSTEM

	Fiscal Year							
	2023	2022 [8]	2021	2020	2019	2018	2017	2016 [1]
GLWA Revenues								
Suburban Wholesale Customers	\$ 275,917,502	\$ 268,813,369	\$ 267,567,816	\$ 266,003,286	\$ 272,772,460	\$ 268,978,831	\$ 298,376,775	\$ 121,106,353
DWSD Local system charges	191,042,200	188,662,200	187,959,700	185,807,300	181,159,300	178,969,200	187,304,100	95,826,900
Industrial waste charges	8,393,103	8,300,278	8,004,939	7,854,593	9,106,274	14,334,979	14,381,106	6,910,192
Pollutant surcharges	4,894,567	5,181,816	6,719,964	6,448,508	5,932,550	6,908,404	5,206,294	2,423,910
Other Revenue	4,901,316	817,448	6,481,905	6,491,617	506,323	4,391,145	538,807	4,197,614
Earnings on investments [2]	<u>12,498,292</u>	<u>1,842,475</u>	<u>2,802,041</u>	<u>7,775,080</u>	<u>9,592,270</u>	<u>4,022,582</u>	<u>1,384,225</u>	<u>586,072</u>
Total GLWA Revenues	<u>497,646,980</u>	<u>473,617,586</u>	<u>479,536,365</u>	<u>480,380,384</u>	<u>479,069,177</u>	<u>477,605,141</u>	<u>507,191,307</u>	<u>231,051,041</u>
DWSD Local System Revenues [7]								
Local system revenues [3]	106,468,842	132,274,680	79,360,298	80,935,263	71,542,770	84,018,973	45,587,339	206,870,710
Other Revenue	<u>286,763</u>	<u>1,797,906</u>	<u>915,216</u>	<u>914,969</u>	<u>346,821</u>	<u>159,535</u>	<u>4,617,148</u>	<u>(940,714)</u>
Total DWSD Local System Revenues	<u>106,755,605</u>	<u>134,072,586</u>	<u>80,275,514</u>	<u>81,850,232</u>	<u>71,889,591</u>	<u>84,178,508</u>	<u>50,204,487</u>	<u>205,929,996</u>
Total Revenue	<u>604,402,585</u>	<u>607,690,172</u>	<u>559,811,879</u>	<u>562,230,616</u>	<u>550,958,768</u>	<u>561,783,649</u>	<u>557,395,794</u>	<u>436,981,037</u>
Operating Costs								
GLWA operating expenses	211,656,126	186,918,677	178,101,424	176,949,460	174,040,805	176,379,404	151,318,266	84,380,021
GASB 87 and GASB 96 expenditures [4]	2,464,377	1,041,308	118,759	-	-	-	-	-
O&M transfers:								
DWSD Local System operations	51,396,400	61,301,000	69,915,700	55,243,500	56,767,920	60,517,992	41,535,600	16,949,400
Legacy Pension Regional System [5]	10,824,000	10,824,000	10,824,000	10,824,000	10,824,000	10,824,000	10,824,000	5,412,000
Legacy Pension DWSD Local System [5]	<u>2,856,000</u>	<u>2,856,000</u>	<u>2,856,000</u>	<u>2,856,000</u>	<u>2,856,000</u>	<u>2,856,000</u>	<u>2,856,000</u>	<u>1,428,000</u>
Total Operating Costs	<u>279,196,903</u>	<u>262,940,985</u>	<u>261,815,883</u>	<u>245,872,960</u>	<u>244,488,725</u>	<u>250,577,396</u>	<u>206,533,866</u>	<u>108,169,421</u>
Pledged revenue	<u>\$ 325,205,682</u>	<u>\$ 344,749,187</u>	<u>\$ 297,995,996</u>	<u>\$ 316,357,656</u>	<u>\$ 306,470,043</u>	<u>\$ 311,206,253</u>	<u>\$ 350,861,928</u>	<u>\$ 328,811,616</u>
Principal and interest funding requirement [6]:								
Senior lien bonds	\$ 152,866,129	\$ 130,404,294	\$ 119,217,128	\$ 147,310,565	\$ 145,795,507	\$ 141,718,836	\$ 140,854,010	\$ 140,191,016
Second lien bonds	<u>39,847,153</u>	<u>51,893,038</u>	<u>57,778,951</u>	<u>45,878,850</u>	<u>43,922,600</u>	<u>43,990,100</u>	<u>47,918,639</u>	<u>48,944,924</u>
Total senior and second lien bonds	192,713,282	182,297,332	176,996,079	193,189,415	189,718,107	185,708,936	188,772,649	189,135,940
Junior lien bonds	<u>50,145,516</u>	<u>53,550,614</u>	<u>53,166,797</u>	<u>52,593,843</u>	<u>49,454,156</u>	<u>46,571,896</u>	<u>45,782,165</u>	<u>39,434,631</u>
Total All Bonds	<u>\$ 242,858,798</u>	<u>\$ 235,847,946</u>	<u>\$ 230,162,876</u>	<u>\$ 245,783,258</u>	<u>\$ 239,172,263</u>	<u>\$ 232,280,832</u>	<u>\$ 234,554,814</u>	<u>\$ 228,570,571</u>
GAAP Basis Debt Service Coverage								
Senior lien bonds	2.13	2.64	2.50	2.15	2.10	2.20	2.49	2.35
Senior and second lien bonds	1.69	1.89	1.68	1.64	1.62	1.68	1.86	1.74
All bonds, including SRF junior lien	1.34	1.46	1.29	1.29	1.28	1.34	1.50	1.44

[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] Excludes investment earnings on bond proceeds in construction fund.

[3] Local Service Revenue reported net of bad debt expense.

[4] Amounts recorded under GASB 96 for financial reporting purposes are treated as operating expenditures for budget purposes and the debt service coverage calculation.

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

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

[7] At the time of the issuance of the GLWA financial report, DWSD's audited financial report had not been released. Amounts used were provided by DWSD's management of the preliminary financial results for the year ended June 30, 2023.

[8] DWSD local system revenues for 2022 were based on DWSD preliminary financial results. Amounts have been updated to actual.

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

GREAT LAKES WATER AUTHORITY

Schedule 12d

DEBT SERVICE COVERAGE - RATE COVENANT BASIS - SEWAGE DISPOSAL SYSTEM

	Fiscal Year							
	2023	2022	2021	2020	2019	2018	2017	2016 [1]
GLWA Receipts								
Wholesale System receipts	\$ 297,751,807	\$ 281,636,430	\$ 288,132,728	\$ 293,321,993	\$ 281,485,522	\$ 294,503,834	\$ 281,528,551	
DWSD Local System charges	191,042,200	188,662,200	187,959,700	185,807,300	181,159,300	178,969,200	187,304,100	
Investment Earnings	10,094,409	1,680,667	2,739,425	5,372,063	5,098,922	2,796,727	372,505	
Total GLWA Receipts	498,888,416	471,979,297	478,831,853	484,501,356	467,743,744	476,269,761	469,205,156	
DWSD Local System Receipts	101,900,942	101,030,510	118,699,151	77,444,540	82,349,510	60,314,827	43,553,820	
Total Receipts	600,789,358	573,009,807	597,531,004	561,945,896	550,093,254	536,584,588	512,758,976	
Operations and Maintenance Transfers								
GLWA Regional System operations [2]	204,122,500	191,908,600	165,588,970	176,416,149	171,899,072	172,614,312	172,965,094	
DWSD Local System operations	51,396,400	61,301,000	69,915,700	55,243,500	56,767,920	60,517,992	41,535,600	
Legacy Pension Regional System [3]	10,824,000	10,824,000	10,824,000	10,824,000	10,824,000	10,824,000	10,824,000	
Legacy Pension DWSD Local System [3]	2,856,000	2,856,000	2,856,000	2,856,000	2,856,000	2,856,000	2,856,000	
Total Operations and Maintenance Transfers	269,198,900	266,889,600	249,184,670	245,339,649	242,346,992	246,812,304	228,180,694	
Pledged Revenue	\$ 331,590,458	\$ 306,120,207	\$ 348,346,334	\$ 316,606,247	\$ 307,746,262	\$ 289,772,284	\$ 284,578,282	
Principal and interest funding requirement [4]:								
Senior lien bonds	\$ 152,866,129	\$ 130,404,294	\$ 119,217,128	\$ 147,310,565	\$ 145,795,507	\$ 141,718,836	\$ 140,854,010	
Second lien bonds	39,847,153	51,893,038	57,778,951	45,878,850	43,922,600	43,990,100	47,918,639	
Total senior and second lien bonds	192,713,282	182,297,332	176,996,079	193,189,415	189,718,107	185,708,936	188,772,649	
Junior lien bonds	50,145,516	53,550,614	53,166,797	52,593,843	49,454,156	46,571,896	45,782,165	
Total All Bonds	\$ 242,858,798	\$ 235,847,946	\$ 230,162,876	\$ 245,783,258	\$ 239,172,263	\$ 232,280,832	\$ 234,554,814	
Rate Covenant Basis Debt Service Coverage								
Senior lien bonds	2.17	2.35	2.92	2.15	2.11	2.04	2.02	
Senior and second lien bonds	1.72	1.68	1.97	1.64	1.62	1.56	1.51	
All bonds, including SRF junior lien	1.37	1.30	1.51	1.29	1.29	1.25	1.21	

[1] GLWA started operations on January 1, 2016. Due to the bifurcation from DWSD the Rate Covenant Basis cannot be computed for 2016.

[2] For years prior to 2022 a different methodology was used. A calculation was performed to determine the cash basis disbursements from the operations fund.

[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.

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

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DEMOGRAPHIC AND ECONOMIC INFORMATION

Demographic and economic information is intended to show the socioeconomic environment within which the Authority operates.

GREAT LAKES WATER AUTHORITY

SERVICE AREA DEMOGRAPHICS
Last Ten Years

Year	Population (1)	Unemployment (2)	Per Capita Income (3)	Total Debt Service (5)	Debt Per Capita	Debt Service as a Percentage of Income
Water Fund						
2023	3,800,000	3.7%	\$ 66,285 (4)	\$ 192,800,887	\$ 50.74	0.08%
2022	3,800,000	3.8%	62,274 (4)	176,589,315	46.47	0.07%
2021	3,800,000	6.2%	60,965	179,214,379	47.16	0.08%
2020	3,800,000	11.5%	57,755	172,869,073	45.49	0.08%
2019	3,800,000	4.3%	53,428	167,966,454	44.20	0.08%
2018	3,800,000	4.3%	51,823	172,549,891	45.41	0.09%
2017	3,800,000	4.6%	49,809	175,010,011	46.06	0.09%
2016 *	3,800,000	5.3%	48,605	171,138,525	45.04	0.09%
2015 *	3,800,000	5.9%	47,473	178,923,900	47.09	0.10%
2014 *	3,800,000	8.1%	44,884	182,464,900	48.02	0.11%
Sewage Disposal Fund						
2023	2,800,000	3.7%	\$ 66,285 (4)	\$ 242,858,798	\$ 86.74	0.13%
2022	2,800,000	3.8%	62,274 (4)	235,847,946	84.23	0.14%
2021	2,800,000	6.2%	60,965	230,162,876	82.20	0.13%
2020	2,800,000	11.5%	57,755	245,783,258	87.78	0.15%
2019	2,800,000	4.3%	53,428	239,172,263	85.42	0.16%
2018	2,800,000	4.3%	51,823	232,280,832	82.96	0.16%
2017	2,800,000	4.6%	49,809	234,554,814	83.77	0.17%
2016 *	2,800,000	5.3%	48,605	228,570,571	81.63	0.17%
2015 *	2,807,000	5.9%	47,473	232,612,800	82.87	0.17%
2014 *	2,807,000	8.1%	44,884	229,611,100	81.80	0.18%

- (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 2023 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 (Prior year amounts have been updated to match current information from FRED)
- (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 2014-2015 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.

GREAT LAKES WATER AUTHORITY

Schedule 14

LARGEST EMPLOYERS
Current Year and 9 years prior

Employer	Type of Business	Fiscal Year 2023			Fiscal Year 2014		
		Full- Time Employees (a)	Rank	Percent of Total Employment (b)	Full- Time Employees (c)	Rank	Percent of Total Employment (d)
Ford Motor Co.	Automobile Manufacturer	47,750	1	2.34%	43,977	1	2.35%
Stellantis NV (Formerly FCA US LLC)	Automobile Manufacturer	42,444	2	2.08%	32,106	2	1.71%
General Motors Co.	Automobile Manufacturer	38,600	3	1.89%	30,570	3	1.63%
University of Michigan	Public University and Health System	35,620	4	1.74%	29,855	4	1.59%
Corewell Health (Formerly BSHS System)	Health Care System	21,674	5	1.06%	n/a	n/a	n/a
U.S. Government	Federal Government	19,953	6	0.98%	18,703	5	1.00%
Henry Ford Health System	Health Care System	17,469	8	0.85%	17,492	6	0.93%
Rocket Companies Inc.	FinTech platform company consisting of personal finance and consumer technology brands	14,109	7	0.69%	11,563	9	0.62%
Trinity Health Michigan	Health Care System	13,186	9	0.65%	14,341	7	0.77%
Ascension Michigan	Health Care System	12,085	10	0.59%	11,337	10	0.61%
Detroit Medical Center	Health Care System	n/a	n/a	n/a	12,268	8	0.65%
Total		262,890		12.87%	222,212		11.86%

- (a) July 2022 Employment data from Largest Southeast Michigan Employers - Ranked by full-time employees in the December 19, 2022 Crain's Detroit Business (most recent available)
- (b) Percentage base on U.S. Bureau of Labor Statistics from July 2022 of 2,043,249 for the Detroit-Warren-Dearborn, MI Metropolitan Statistical Area
- (c) July 2014 Employment data from comparative column in July 2015 listing of Largest Southeast Michigan Employers - Ranked by full-time employees issued by Crain's Detroit Business
- (d) Percentage base on U.S. Bureau of Labor Statistics from July 2014 of 1,873,108 for the Detroit-Warren-Dearborn, MI Metropolitan Statistical Area

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OPERATING INFORMATION

Operating information is intended to show contextual information about the Authority's operations and resources to assist in using financial statement information to understand and assess the Authority's economic condition.

GREAT LAKES WATER AUTHORITY

PRODUCED AND BILLED WATER VOLUMES (Mcf)

Fiscal Year	Water Produced [1]	Water Sales			Estimated Non-Revenue Water	Estimated Non-Revenue Water as % of Production
		Wholesale Billed [2]	Local System Billed [3]	Total Water Billed		
2023	21,159,700	13,803,500	4,342,400	18,145,900	3,013,800	14.2%
2022	19,725,700	13,205,300	4,297,300	17,502,600	2,223,100	11.3%
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%

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 self-reported 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.

Source: Great Lakes Water Authority Financial Services Area and the Foster Group

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

GREAT LAKES WATER AUTHORITY

WASTEWATER VOLUMES (Mcf)

Fiscal Year	Wastewater Influent [1]	Customer Wastewater Volume [2]		"System" Volume [3]
		Metered Customers	Unmetered Customers [3]	
2023 *	26,039,900	11,684,200	8,381,700	5,974,000
2022	36,008,500	15,461,800	11,436,800	9,109,900
2021	27,543,700	11,859,700	8,918,200	6,765,800
2020	30,856,000	13,812,000	9,611,600	7,432,400
2019	34,080,800	14,658,300	10,891,500	8,531,000
2018	32,139,200	13,587,800	10,505,100	8,046,300
2017	33,623,600	14,141,100	10,805,100	8,677,400
2016 **	29,336,600	12,802,100	9,402,100	7,132,400

Wastewater volumes are monitored by GLWA operations and engineering teams throughout the year then go through a formal review and approval process over a period of six to nine months following the end of the fiscal year. The formal, annual, data analytic review is led by an outside consultant. As part of this process preliminary data is shared with customers to confirm. Current and historic data does change at times as system improvements are made and reporting refinements occur.

[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.

* Data is preliminary

** 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.

GREAT LAKES WATER AUTHORITY

ADDITIONAL SUMMARY STATISTICS

	2023	2022	2021	2020	2019	2018	2017	2016
Capital Asset Statistics - Water								
Water Treatment Plants	5	5	5	5	5	5	5	5
Intake Facilities	3	3	3	3	3	3	3	3
Booster Pumping Stations	19	19	19	19	19	19	19	19
Water Storage Reservoirs	32	32	32	32	32	32	32	32
Miles of Transmission Lines	816	816	816	816	816	803	803	803
Capital Asset Statistics - Sewer								
Water Resource Recovery Facility	1	1	1	1	1	1	1	1
Major Interceptors	3	3	3	3	3	3	3	3
Pump Stations [1]	9	9	9	9	9	9	9	9
Combined Sewer Overflow Facilities:								
Retention Treatment Basins	5	5	5	5	5	5	5	5
Flow-through Type Facilities	3	3	3	3	3	3	3	3
Miles of Trunk Sewers and Interceptors	195	195	195	195	195	181	181	181
GLWA Employees								
Water Operations	217	203	211	211	213	205	180	155
Sewage Disposal Operations	289	298	320	344	369	358	342	320
Centralized Services	321	295	298	302	295	276	249	217
Administrative Services	181	152	156	152	147	129	110	90
Total Employees	<u>1,008</u>	<u>948</u>	<u>985</u>	<u>1,009</u>	<u>1,024</u>	<u>968</u>	<u>881</u>	<u>782</u>

[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.



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