



Water Fund

Fiscal Year Ended June 30, 2022

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

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

GREAT LAKES WATER AUTHORITY WATER FUND

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Independent Auditors' Report

To the Board of Directors of
Great Lakes Water Authority

Opinion

We have audited the accompanying financial statements of the Water Fund of the Great Lakes Water Authority (Water Fund), as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the Water Fund's 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 financial position of the Water Fund of the Great Lakes Water Authority as of June 30, 2022 and the respective changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

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 Water Fund 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 opinion.

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 Water Fund'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 Water Fund'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 Water Fund'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.

Emphasis of Matter

As discussed in Note 1, the financial statements present only the Water Fund and do not purport to, and do not, present fairly the financial position of the Great Lakes Water Authority, as of June 30, 2022, and the changes in financial position, or cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

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 financial statements. Such information is the responsibility of management and, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audit of the 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.

The Water Fund has omitted the Management's Discussion and Analysis that accounting principles generally accepted in the United States of America require to be presented to supplement the financial statements. Such missing information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of the financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. Our opinion on the financial statements is not affected by this missing information. We note the significant financial events of the Water Fund are included in the Management's Discussion and Analysis of the Great Lakes Water Authority's Annual Comprehensive Financial Report.

Supplementary Information

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

Other Information

Management is responsible for the other information in the statistical section as identified in the table of contents. Our opinion on the 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 financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the 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.

Prior-Year Comparative Information

We have previously audited the financial statements of the Water Fund, as of and for the year ended June 30, 2021, and we expressed an unmodified audit opinion on those statements. The summarized comparative information presented herein as of and for the year ended June 30, 2021, is consistent, in all material respects, with the audited financial statements from which it has derived.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 14, 2022 on our consideration of the Great Lakes Water Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Great Lakes Water Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Great Lakes Water Authority's internal control over financial reporting and compliance.

Baker Tilly US, LLP

Madison, Wisconsin
December 14, 2022

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FINANCIAL STATEMENTS

GREAT LAKES WATER AUTHORITY WATER FUND

STATEMENT OF NET POSITION

As of June 30, 2022

With Comparative Amounts at June 30, 2021

	2022	2021
Assets		
Current Assets		
Cash and cash equivalents	\$ 147,191,020	\$ 162,766,427
Restricted cash and cash equivalents	49,069,747	65,677,030
Restricted cash for the benefit of DWSD	11,371,285	3,144,400
Investments	91,499,859	190,541,958
Restricted investments	30,711,544	2,932,400
Receivables, net	70,897,955	67,284,676
Due from other governments	11,246,188	11,889,748
Due from sewage disposal fund	2,328,086	2,786,344
Contractual obligation receivable	18,126,021	16,558,716
Prepaid items and other assets	8,701,487	7,601,239
Inventories	-	794,521
Total Current Assets	441,143,192	531,977,459
Noncurrent Assets		
Restricted cash and cash equivalents	2,773,291	2,519,127
Restricted investments	9,506,991	8,651,762
Contractual obligation receivable	549,493,189	552,093,376
Prepaid lease	11,250,000	11,250,000
Assets not subject to depreciation or amortization	567,414,021	498,010,970
Capital assets being depreciated, net	1,293,659,589	1,324,554,087
Intangible assets, net	90,652,709	94,219,373
Prepaid insurance on debt	6,649,782	7,304,243
Total Noncurrent Assets	2,531,399,572	2,498,602,938
Total Assets	2,972,542,764	3,030,580,397
Deferred Outflows of Resources		
Deferred charge on refunding	41,997,055	44,677,823
Deferred pension amounts	10,810,800	22,112,642
Total Deferred Outflows of Resources	52,807,855	66,790,465

	<u>2022</u>	<u>2021</u>
Liabilities		
Current Liabilities		
Accounts and contracts payable	\$ 56,890,771	\$ 53,039,330
Accrued salaries, wages and benefits	1,046,674	4,892,033
Accrued liabilities	15,261,427	6,958,556
Due to other governments	17,610,601	15,693,993
Due to sewage disposal fund	-	162,368
Interest payable	36,398,995	36,621,768
Current portion of		
Revenue bonds and loans	40,091,255	32,500,450
Raw water rights obligation	2,845,282	2,734,246
BC Note obligation	203,954	194,242
Regional system leases	5,686,745	5,454,878
Other liabilities	3,378,083	3,123,843
Total Current Liabilities	<u>179,413,787</u>	<u>161,375,707</u>
Noncurrent Liabilities		
Revenue bonds and loans	2,359,238,286	2,407,391,624
Raw water rights obligation	92,515,774	95,361,056
BC Note obligation	16,338,339	16,542,293
Regional system leases	400,095,662	405,782,406
Other liabilities	4,132,979	4,138,780
Net pension liability	23,379,480	51,728,179
Total Noncurrent Liabilities	<u>2,895,700,520</u>	<u>2,980,944,338</u>
Total Liabilities	<u>3,075,114,307</u>	<u>3,142,320,045</u>
Deferred Inflows of Resources		
Deferred gain on refunding	48,216,421	52,250,187
Deferred amounts for swap terminations	61,438	66,164
Deferred pension amounts	11,224,189	-
Total Deferred Inflows of Resources	<u>59,502,048</u>	<u>52,316,351</u>
Net Position		
Net investment in capital assets	(109,163,683)	(191,352,010)
Restricted for debt service	31,660,045	23,688,943
Restricted for payment assistance program	5,272,708	4,614,294
Unrestricted (deficit)	<u>(37,034,806)</u>	<u>65,783,239</u>
TOTAL NET POSITION	<u>\$ (109,265,736)</u>	<u>\$ (97,265,534)</u>

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

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GREAT LAKES WATER AUTHORITY WATER FUND

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

For the Year Ended June 30, 2022

With Comparative Amounts for the Year Ended June 30, 2021

	2022	2021
Operating Revenues		
Wholesale customer charges	\$ 323,026,213	\$ 322,423,768
Local system charges	21,697,300	21,925,500
Other revenues	234,462	265,822
Total Operating Revenues	344,957,975	344,615,090
Operating Expenses		
Operating expenses before depreciation and amortization		
Personnel	44,892,622	43,889,495
Contractual services	50,683,897	40,410,811
Utilities	28,725,292	28,828,226
Chemicals	7,788,784	6,028,141
Supplies and other expenses	9,157,367	9,158,990
Capital program allocation	(1,618,459)	(2,123,060)
Intergovernmental reimbursements	(1,813,535)	(2,554,511)
Total operating expenses before depreciation and amortization	137,815,968	123,638,092
Depreciation	123,196,027	123,271,541
Amortization of intangible assets	3,566,664	3,566,664
Total Operating Expenses	264,578,659	250,476,297
Operating Income	80,379,316	94,138,793
Nonoperating Revenues (Expenses)		
Earnings (loss) on investments	(2,361,396)	768,918
Interest on shortfall and obligations receivable	25,107,207	25,474,904
Interest expense	(125,086,379)	(128,257,367)
Amortization of debt related items and cost of issuance	15,610,434	15,988,278
Legacy pension expense	(4,988,132)	(8,075,457)
WRAP (Water Residential Assistance Program)	(1,049,908)	(593,206)
Other	388,656	(300,841)
Total Nonoperating Expenses	(92,379,518)	(94,994,771)
Change in net position	(12,000,202)	(855,978)
NET POSITION (DEFICIT), Beginning of Year	(97,265,534)	(96,409,556)
NET POSITION (DEFICIT), END OF YEAR	\$ (109,265,736)	\$ (97,265,534)

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

GREAT LAKES WATER AUTHORITY WATER FUND

STATEMENT OF CASH FLOWS For the Year Ended June 30, 2022 With Comparative Amounts for the Year Ended June 30, 2021

	2022	2021
Cash Flows From Operating Activities		
Cash received from customers	\$ 335,022,666	\$ 332,140,177
Cash received from intergovernmental reimbursements	2,694,534	10,417,372
Cash payments for intergovernmental services provided	(1,813,536)	(2,554,512)
Cash payments to suppliers for goods and services	(98,259,357)	(89,693,756)
Cash payments for employee services	(46,681,790)	(41,372,179)
Cash payments to other governments for obligation payable	(875,509)	(875,508)
Cash payments for WRAP	(1,049,908)	(593,206)
Cash payments for GLWA share pension agreement	(11,440,800)	(11,440,800)
Cash received from insurance claims	72,709	-
Cash received nonoperating income	435,044	1,740
Cash received for DWSD nonoperating pension	4,427,400	4,427,400
Cash paid for DWSD nonoperating pension	(4,427,394)	(4,427,393)
Cash received for DWSD WRAP	671,100	654,800
Cash payments for DWSD WRAP	(671,100)	(1,416,056)
Cash increase from DWSD budgetary surplus (1)	7,470,103	1,356,365
Principal payments received on obligation receivable	15,820,056	14,834,700
Interest received on obligation receivable	26,069,023	27,037,200
Advanced payments received on obligation receivable	475,121	-
Cash received from DWSD for cost of issuance fees	49,500	-
Payments for bond issuance costs on DWSD debt	(79,000)	(20,328)
Payments of state revolving fund loan proceeds to DWSD	(11,851,337)	(15,741,109)
Net Cash Provided by Operating Activities	216,057,525	222,734,907
Cash Flows From Noncapital Financing Activities		
Proceeds from state revolving fund loans for DWSD	18,043,834	15,741,109
Cash received from grants	147,288	-
Principal payments	(15,820,056)	(14,834,700)
Interest payments	(25,787,369)	(24,641,858)
Net Cash Used in Noncapital Financing Activities	(23,416,303)	(23,735,449)
Cash Flows From Capital and Related Financing Activities		
Proceeds from sale of assets	15,857	29,271
Proceeds from state revolving fund loans	25,642,083	20,186,528
Payment of bond issuance costs	(204,225)	(128,602)
Principal payments on bonds	(50,798,000)	(56,545,300)
Principal payments on regional system leases	(5,454,878)	(5,232,465)
Interest payments	(95,078,335)	(93,163,708)
Purchase of capital assets	(158,973,426)	(126,703,053)
Net Cash Used in Capital and Related Financing Activities	(284,850,924)	(261,557,329)

	<u>2022</u>	<u>2021</u>
Cash Flows From Investing Activities		
Investment purchases	\$ (213,527,072)	\$ (179,484,109)
Investment maturities	279,775,191	321,542,000
Interest received	<u>2,259,942</u>	<u>4,479,589</u>
Net Cash Used in Investing Activities	<u>68,508,061</u>	<u>146,537,480</u>
Net change in cash and cash equivalents	(23,701,641)	83,979,609
CASH AND CASH EQUIVALENTS, Beginning of Year	<u>234,106,984</u>	<u>150,127,375</u>
CASH AND CASH EQUIVALENTS, END OF YEAR	<u>\$ 210,405,343</u>	<u>\$ 234,106,984</u>
STATEMENT OF NET POSITION CLASSIFICATION OF CASH		
Cash and cash equivalents	\$ 147,191,020	\$ 162,766,427
Restricted cash and cash equivalents	49,069,747	65,677,030
Restricted cash for the benefit of DWSD	11,371,285	3,144,400
Noncurrent restricted cash and cash equivalents	<u>2,773,291</u>	<u>2,519,127</u>
CASH AND CASH EQUIVALENTS, END OF YEAR	<u>\$ 210,405,343</u>	<u>\$ 234,106,984</u>
NONCASH OPERATING ACTIVITIES		
Credits given on billings-Flint KWA obligation	<u>\$ (6,496,428)</u>	<u>\$ (6,652,253)</u>
Interest income obligation receivable premium amortization	<u>\$ (738,660)</u>	<u>\$ (785,463)</u>
NONCASH FINANCING AND INVESTMENT ACTIVITIES		
Decrease in raw water rights obligation	<u>\$ 2,734,246</u>	<u>\$ 2,624,820</u>
Interest paid for raw water rights obligation	<u>\$ 3,762,182</u>	<u>\$ 4,027,433</u>
Increase in unrealized loss on investments	<u>\$ 860,822</u>	<u>\$ 6,705,494</u>
Amortization income (expense)	<u>\$ 15,815,659</u>	<u>\$ 16,116,880</u>

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

GREAT LAKES WATER AUTHORITY WATER FUNDSTATEMENT OF CASH FLOWS
For the Year Ended June 30, 2022
With Comparative Amounts for the Year Ended June 30, 2021

	<u>2022</u>	<u>2021</u>
Reconciliation of Operating Income to Net		
Cash Provided by Operating Activities:		
Operating income	\$ 80,379,316	\$ 94,138,793
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation	123,196,027	123,271,541
Amortization of intangible assets	3,566,664	3,566,664
Credits for raw water rights	(6,496,427)	(6,652,253)
Miscellaneous nonoperating income (expense)	435,044	1,740
Legacy pension expense and administrative fee	(5,150,550)	(8,254,106)
WRAP (Water Residential Assistance Program)	(1,049,908)	(593,206)
Loan forgiveness pass-through to DWSD	(2,518,000)	(2,031,300)
Interest income on contractual obligation receivable	25,107,207	25,474,904
Interest expense on obligation payable	(681,267)	(690,516)
Changes in:		
Receivables	(3,613,279)	(5,824,289)
Due from other governments	602,303	8,375,867
Due from other funds	458,258	(652,153)
Contractual obligation receivable	1,032,882	1,910,354
Prepaid items and other assets (operating)	(1,561,979)	(1,712,553)
Inventories	794,521	(157,900)
Accounts payable (operating)	1,113,432	(352,968)
Accrued salaries, wages and benefits	(3,845,359)	(429,831)
Accrued liabilities	8,302,871	1,601,500
Due to other governments	1,916,608	(2,588,261)
Due to other funds	(162,368)	162,368
Obligation payable including accrued interest	(194,242)	(184,992)
Other noncurrent liabilities	248,439	(2,909,153)
Net pension liability and deferred items	(5,822,668)	(2,735,343)
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>\$ 216,057,525</u>	<u>\$ 222,734,907</u>

- (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 WATER FUND

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GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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

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

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

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

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

REPORTING ENTITY

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

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

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

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

BASIS OF PRESENTATION

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

BASIS OF ACCOUNTING

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

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

ASSETS, DEFERRED OUTFLOWS OF RESOURCES, LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION

Cash and Cash Equivalents and Investments

The Authority's cash and cash equivalents are considered to be cash on hand, demand deposits and 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.

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 Water Fund recognizes an estimate of uncollectible accounts for its customer accounts receivable related to its water services.

Due from and Due to Other Governments

The due from other governments includes amounts owed to the Authority by DWSD for shared services, accrued interest receivable on the contractual obligation receivable and grants. The due to other governments includes amounts owed by the Authority to DWSD for shared services and state revolving fund pass through to DWSD that were received by the Authority but not disbursed to DWSD by June 30, 2022.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

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

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. Prepaid insurance on debt is amortized over the life of the debt. Other assets include accrued interest receivable on investments.

Inventories

Inventories consist of operating, maintenance and repair parts for water 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 13, 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.

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.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

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

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

	Useful Lives (In Years)
Site 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.

Intangible Assets

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 12 for a description of these rights.

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 contributions to the plan subsequent to the plan measurement date. More detailed information on pension amounts can be found in Note 17.

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.
- Advanced billings on rentals

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

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

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 disposal systems. See "BC Note Obligation" in Note 12.

Regional System Leases

The effective date of the Regional System lease by the City to the Authority for the leased water 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:

- Compensated absences
- Workers' compensation
- Claims and judgements
- Cash held for the benefit of DWSD budget stabilization

Net Pension Liability

Under the terms of the Regional System leases, the Authority is a nonemployer contributing entity in the City of Detroit General Employee's Retirement system (GRS) Component II plan in a special funding situation. For the purposes of measuring the net pension liability, deferred outflows, and pension expense, information about the fiduciary net position of the Component II plan of the GRS and additions to/ deductions from the plan's net position have been determined on the same basis as they are reported by GRS. The GRS combined plan uses the economic resources measurement focus and the full accrual basis of accounting. Revenue is recorded when earned and expenses are recorded when a liability is incurred. Plan member contributions are recognized in the period in which the contributions are due. Benefits are recognized when due and payable in accordance with the terms of the plan. Investments are reported at fair value or estimated fair value. Refer to Note 17 for additional information on the net pension liability.

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.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

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

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 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 \$2,354,715 for the Water Fund.

Operating expenses include the direct costs of operating the water system, 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.

Taxes

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

Interest Income on Obligations Receivable

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

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

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

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 Sewer 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, 2022:

<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	51.5%	\$ 47,258,919	48.5%	\$ 44,463,100	\$ 91,722,019
Administrative services	43.8%	\$ 14,636,708	56.2%	\$ 18,754,698	\$ 33,391,406

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.

USE OF ESTIMATES

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

ADOPTION OF NEW ACCOUNTING STANDARDS

GASB Statement No. 96, Subscription-Based Information Technology Arrangements (SBITA) is effective for years beginning after June 15, 2022. The Authority has implemented this statement early for the fiscal year ending June 30, 2022. This implementation did not have any effect on previous reporting periods as the existing or amended SBITA contracts terms did not result in recording a subscription asset or the contracts started during the current fiscal year.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

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

ADOPTION OF NEW ACCOUNTING STANDARDS (cont.)

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. 92, *Omnibus 2020*
- Statement No. 93, *Replacement of Interbank Offer Rates*
- Statement No. 97, *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans - an amendment of GASB Statements No. 14 and No.84, and a supersession of GASB Statement No. 32*
- Statement No. 99, *Omnibus 2022*

NEW ACCOUNTING PRONOUNCEMENTS TO BE IMPLEMENTED IN THE FUTURE

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

- Statement No. 91, *Conduit Debt Obligations* (effective for fiscal years beginning after December 15, 2021)
- Statement 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)
- 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.

NOTE 2 – BUDGETARY INFORMATION

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

BUDGET PROCESS

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

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

NOTE 2 – BUDGETARY INFORMATION (cont.)

BUDGET PROCESS (cont.)

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

In the Regional System leases, the City acknowledges that all local water 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 system as required in the Water and Sewer Services Agreement.

SCHEDULE OF CHARGES PROCESS

The GLWA Wholesale Customer Model Water 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.

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.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

NOTE 3 – CASH DEPOSITS AND INVESTMENTS (cont.)

The deposits and investments of the Water Fund at June 30, 2022 are reported in the financial statements as follows:

Statement of Net Position

Cash and cash equivalents	\$ 147,191,020
Restricted cash and cash equivalents	49,069,747
Restricted cash for the benefit of DWSD	11,371,285
Investments	91,499,859
Restricted investments	30,711,544
Noncurrent restricted cash and cash equivalents	2,773,291
Noncurrent restricted investments	<u>9,506,991</u>

Total	<u>\$ 342,123,737</u>
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Cash Deposits and Investments

Bank deposits – checking and savings accounts	\$ 44,666,252
Money market accounts	165,739,091
Investments in securities	<u>131,718,394</u>

Total	<u>\$ 342,123,737</u>
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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 \$210,405,342 for the water fund. The bank balance of the water fund deposits and money market accounts was \$212,293,856 of which \$198,211,298 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.

INVESTMENTS

Following is a summary of the Water Fund's investments as of June 30, 2022:

	Water Fund	Standard & Poors Rating	Weighted Maturity In Years
U.S. treasury notes	\$ 55,845,338	AA+	1.38
U.S. government agencies	43,932,520	AA+	0.88
Commercial paper	<u>31,940,536</u>	A1	0.04
Total	<u>\$ 131,718,394</u>		

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

NOTE 3 – CASH DEPOSITS AND INVESTMENTS (cont.)

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.

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, 2022, 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, 2022, 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>
U.S. government agencies	Federal National Mortgage Association	24.47%
U.S. government agencies	Federal Home Loan Mortgage Company	10.89
Commercial paper	Nordea Bank Abp	10.94

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.

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.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

NOTE 3 – CASH DEPOSITS AND INVESTMENTS (cont.)

FAIR VALUE MEASUREMENTS (cont.)

	Level 2
Investments by fair value:	
U.S. treasury notes	\$ 55,845,338
U.S. government agencies	43,932,520
Commercial paper	31,940,536
Total Investments	\$ 131,718,394

The Water Fund has no Level 1 or 3 inputs on June 30, 2022.

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.

The following schedules provide, in the order of the flow of funds per the Master Bond Ordinance, the assignment of Water Fund cash and investments between restricted and unrestricted assets based on the source of the monies as of June 30, 2022.

	Funded from Revenue and Other		Funded from	Total
	Unrestricted	Restricted	Debt Issuance Restricted	
Receiving fund	\$ 58,356,061 *	\$ -	\$ -	\$ 58,356,061
Operations and maintenance	36,503,245	-	-	36,503,245
Operations and maintenance – legacy pension	-	194,425	-	194,425
Senior lien debt service	-	28,520,884	-	28,520,884
Senior lien bond reserve	-	-	101,636,783	101,636,783
Second and junior lien debt service	-	32,625,470	-	32,625,470
Second lien bond reserve	-	-	47,802,189	47,802,189
Legacy pension obligation	-	374,283	-	374,283
Water residential assistance program (WRAP)	-	5,272,708	-	5,272,708
Budget stabilization	-	1,913,873	-	1,913,873
Extraordinary repair and replacement	26,197,651	-	-	26,197,651
Improvement and extension – regional	94,497,370	-	-	94,497,370
Subtotal – Reserves Defined by Ordinance	215,554,327	68,901,643	149,438,972	433,894,942
Less: Funded by surety (noncash)	-	-	(144,345,270)	(144,345,270)
Total – Reserves Defined by Ordinance (net of surety coverage)	215,554,327	68,901,643	5,093,702	289,549,672
Cash held for the benefit of DWSD	-	11,371,285	-	11,371,285
Construction retainage and deposits	-	18,066,228	-	18,066,228
Construction fund	23,136,552	-	-	23,136,552
Total Cash, Cash Equivalents and Investments Water Fund	\$ 238,690,879	\$ 98,339,156	\$ 5,093,702	\$ 342,123,737

*Balance for two months required transfers

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

NOTE 4 – RESTRICTED ASSETS (cont.)

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.

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

Restricted assets from schedule above:	
From revenue and other	\$ 98,339,156
From debt issuance	5,093,702
Amounts payable to liabilities and debt	<u>(66,500,105)</u>
Restricted Net Position	<u>\$ 36,932,753</u>
Restricted net position for:	
Debt service	\$ 31,660,045
Payment assistance program	<u>5,272,708</u>
Total Restricted Net Position	<u>\$ 36,932,753</u>

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

	Unrestricted	Restricted Current	Restricted Noncurrent	Total
Cash and cash equivalents	\$ 147,191,020	\$ 49,069,747	\$ 2,773,291	\$ 199,034,058
Cash held for the benefit of DWSD	-	11,371,285	-	11,371,285
Investments	<u>91,499,859</u>	<u>30,711,544</u>	<u>9,506,991</u>	<u>131,718,394</u>
Total	<u>\$ 238,690,879</u>	<u>\$ 91,152,576</u>	<u>\$ 12,280,282</u>	<u>\$ 342,123,737</u>

NOTE 5 – RECEIVABLES, NET

The following is a summary of the net receivables as of June 30, 2022:

Receivables, net:	
Billed	\$ 54,169,640
Unbilled	30,349,758
Other	<u>295,791</u>
Subtotal	84,815,189
Allowance for doubtful accounts	<u>(13,917,234)</u>
Total Receivables, net	<u>\$ 70,897,955</u>

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

NOTE 6 – DUE FROM OTHER GOVERNMENTS

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

DWSD-Billed shared services	\$ 14,707,170
DWSD-Unbilled shared services	(4,388,634)
DWSD-Accrued interest on obligation receivable	221,885
State of Michigan FEMA	<u>705,767</u>
Total Due From Other Governments	<u>\$ 11,246,188</u>

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, 2022 consisted of the following:

	Water Fund - Due from Sewage Disposal Fund
Sewage Disposal Fund - Due to Water Fund	<u>\$ 2,328,086</u>

NOTE 8 – CONTRACTUAL OBLIGATION RECEIVABLE

As part of the regional system lease transaction, in which GLWA leased the regional water 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.

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 system. 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.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

NOTE 8 – CONTRACTUAL OBLIGATION RECEIVABLE (cont.)

Changes in obligation receivable for the year ended June 30, 2022 were as follows:

	Beginning Balance	Increase	Decrease	Debt Forgiveness	Ending Balance	Due Within One Year
Obligation Receivable						
Bifurcated debt	\$ 383,840,900	\$ -	\$ (15,168,000)	\$ -	\$ 368,672,900	\$ 15,890,000
New money bonds	136,320,000	-	-	-	136,320,000	-
State revolving funds	28,885,586	18,043,834	(652,056)	(2,518,000)	43,759,364	1,468,850
Total Obligation Receivable	549,046,486	18,043,834	(15,820,056)	(2,518,000)	548,752,264	17,358,850
Deferred amounts for:						
Unamortized premiums	19,605,606	-	(738,660)	-	18,866,946	767,171
Total Obligation Receivable	\$ 568,652,092	\$ 18,043,834	\$ (16,558,716)	\$ (2,518,000)	\$ 567,619,210	\$ 18,126,021

The current obligation receivable payment schedule is as follows:

Year Ended June 30	Principal	Interest	Total
2023	\$ 17,358,850	\$ 25,993,471	\$ 43,352,321
2024	19,811,500	25,265,471	45,076,971
2025	21,209,050	24,389,351	45,598,401
2026	22,163,300	23,467,041	45,630,341
2027	23,171,000	22,502,129	45,673,129
2028 - 2032	130,230,719	96,486,253	226,716,972
2033 - 2037	162,851,100	64,883,885	227,734,985
2038 - 2042	67,851,279	30,037,327	97,888,606
2043 - 2047	72,100,399	12,247,416	84,347,815
2048 - 2050	12,005,067	859,014	12,864,081
Total	\$ 548,752,264	\$ 326,131,358	\$ 874,883,622

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

NOTE 9 – CAPITAL ASSETS

Capital assets activity for the year ended June 30, 2022 was as follows:

	Beginning Balance	Additions	Disposals	Transfers	Ending Balance
Nondepreciable and nonamortizable capital assets					
Land	\$ 34,167,736	\$ -	\$ -	\$ 739,355	\$ 34,907,091
Easements	258,990,205	-	-	148,741	259,138,946
Construction in progress	204,853,029	158,706,458	-	(90,605,427)	272,954,060
Prepaid subscription assets	-	413,924	-	-	413,924
Total Nondepreciable and Nonamortizable Capital Assets	498,010,970	159,120,382	-	(89,717,331)	567,414,021
Depreciated capital assets					
Site improvements	84,054,180	-	-	-	84,054,180
Buildings and structures	592,346,952	-	-	14,829,124	607,176,076
Infrastructure	668,116,959	-	-	-	668,116,959
Machinery and equipment	714,473,237	2,237,151	(6,015)	74,888,207	791,592,580
Vehicles	5,069,512	352,904	(141,287)	-	5,281,129
Leasehold improvements	8,407,125	-	-	-	8,407,125
Total Depreciable Assets	2,072,467,965	2,590,055	(147,302)	89,717,331	2,164,628,049
Less: Accumulated depreciation					
Site improvements	(47,605,667)	(7,033,332)	-	-	(54,638,999)
Buildings and structures	(171,661,110)	(25,592,114)	-	-	(197,253,224)
Infrastructure	(209,383,033)	(38,764,658)	-	-	(248,147,691)
Machinery and equipment	(316,813,627)	(50,659,410)	492	-	(367,472,545)
Vehicles	(1,839,523)	(590,716)	140,953	-	(2,289,286)
Leasehold improvements	(610,918)	(555,797)	-	-	(1,166,715)
Total Accumulated Depreciation	(747,913,878)	(123,196,027)	141,445	-	(870,968,460)
Total Depreciated Capital Assets, Net	1,324,554,087	(120,605,972)	(5,857)	89,717,331	1,293,659,589
Intangible asset – raw water rights	106,999,919	-	-	-	106,999,919
Less: Accumulated amortization	(12,780,546)	(3,566,664)	-	-	(16,347,210)
Total Intangible Assets, Net	94,219,373	(3,566,664)	-	-	90,652,709
Net Capital Assets	\$1,916,784,430	\$ 34,947,746	\$ (5,857)	\$ -	\$1,951,726,319

ASSET IMPAIRMENT

Capital assets are evaluated annually to determine if any asset impairments exist, defined as a significant, unexpected decline in the service utility of a capital asset. There were no recorded impairments for the Authority for the year ended June 30, 2022.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

NOTE 9 – CAPITAL ASSETS (cont.)

RAW WATER RIGHTS ASSET

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

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

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.

NOTE 10 – ACCRUED LIABILITIES

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

Cash held for the benefit of DWSD	\$ 11,371,285
Advanced billings	74,649
Customer deposit	<u>3,815,493</u>
Total Other Accrued Liabilities	<u>\$ 15,261,427</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:

Shared services	\$ 11,418,104
State revolving fund loan proceeds due to DWSD	<u>6,192,497</u>
Total Due to Other Governments	<u>\$ 17,610,601</u>

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

NOTE 12 – LONG-TERM DEBT

Changes in long-term debt for the year ended June 30, 2022 were as follows:

	Beginning Balance	Increase	Decrease	Debt Forgiveness	Ending Balance	Due Within One Year
Bonds and Loans						
Revenue bonds	\$2,192,510,000	\$ -	\$ (63,620,000)	\$ -	\$2,128,890,000	\$20,165,000
Notes from direct borrowings and direct placements - State revolving loan	<u>71,259,601</u>	<u>43,685,917</u>	<u>(2,998,056)</u>	<u>(2,518,000)</u>	<u>109,429,462</u>	<u>5,096,750</u>
Total Bonds and Loans	2,263,769,601	43,685,917	(66,618,056)	(2,518,000)	2,238,319,462	25,261,750
Deferred amounts for:						
Unamortized premiums	183,719,225	-	(16,248,084)	-	167,471,141	15,727,022
Unamortized discounts	<u>(7,596,752)</u>	<u>-</u>	<u>1,135,690</u>	<u>-</u>	<u>(6,461,062)</u>	<u>(897,517)</u>
Total Bonds and Loans, Net	2,439,892,074	43,685,917	(81,730,450)	(2,518,000)	2,399,329,541	40,091,255
Other Debt						
Raw water rights obligation	98,095,302	-	(2,734,246)	-	95,361,056	2,845,282
BC Note obligation	<u>16,736,535</u>	<u>-</u>	<u>(194,242)</u>	<u>-</u>	<u>16,542,293</u>	<u>203,954</u>
Total	<u>\$2,554,723,911</u>	<u>\$ 43,685,917</u>	<u>\$ (84,658,938)</u>	<u>\$(2,518,000)</u>	<u>\$2,511,232,890</u>	<u>\$43,140,491</u>

As of June 30, 2022, aggregate debt service requirements of the Authority's fixed rate bonds and loans were as follows.

Year Ended June 30	Bonds		Notes from Direct Borrowings and Direct Placements		Total
	Principal	Interest	Principal	Interest	
2023*	\$ 20,165,000	\$ 83,194,422	\$ 5,096,750	\$ 2,217,281	\$ 110,673,453
2024	76,930,000	96,484,833	5,565,000	2,131,857	181,111,690
2025	82,590,000	92,746,039	11,008,950	1,965,336	188,310,325
2026	86,340,000	88,879,460	9,594,223	1,760,803	186,574,486
2027	90,325,000	84,650,908	6,927,820	1,594,236	183,497,964
2028-2032	527,010,000	351,936,257	23,017,928	6,430,861	908,395,046
2033-2037	632,475,000	209,310,447	22,368,516	4,134,090	868,288,053
2038-2042	322,955,000	102,464,151	17,021,934	1,906,071	444,347,156
2043-2047	273,890,000	39,623,500	7,793,699	606,294	321,913,493
2048-2050	<u>16,210,000</u>	<u>1,242,000</u>	<u>1,034,642</u>	<u>25,904</u>	<u>18,512,546</u>
Total	<u>\$ 2,128,890,000</u>	<u>\$ 1,150,532,017</u>	<u>\$ 109,429,462</u>	<u>\$ 22,772,733</u>	<u>\$ 3,411,624,212</u>

* 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, 2022 are not included in the debt service requirements amounts above as they were paid on June 24, 2022.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

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, 2022:

Issue	Bond Date	Original Issue Amount	Range of Interest Rates	Maturity Dates	Outstanding Ending Balance	Callable at Par
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%	7/01/23-37	71,225,000	44,190,000
Series 2014D-2	9/04/14	188,455,000	5.00%	7/01/23-28	188,455,000	136,925,000
Series 2014D-4	9/04/14	307,645,000	5.00%	7/01/29-34	209,360,000	209,360,000
Series 2014D-6	9/04/14	65,425,000	5.00%	7/01/23-36	49,490,000	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%	7/01/22-46	87,995,000	87,970,000
Series 2016B	10/27/16	163,830,000	5.00%	7/01/22-46	163,825,000	163,800,000
Series 2016C	10/27/16	443,930,000	5.00-5.25%	7/01/22-35	443,930,000	367,685,000
Series 2016D	10/27/16	222,045,000	4.00-5.00%	7/01/24-36	222,045,000	217,380,000
Series 2018A	10/3/18	155,595,000	5.00%	7/01/22-29	122,460,000	-
Series 2020A	5/12/20	42,445,000	5.00%	7/1/24-49	42,445,000	35,685,000
Series 2020B	5/12/20	43,135,000	5.00%	7/1/24-49	43,135,000	36,265,000
Series 2020C**	5/12/20	377,515,000	1.684-3.473%	7/1/22-41	<u>377,515,000</u>	<u>317,530,000</u>
Total Revenue Bonds Payable					<u>\$ 2,128,890,000</u>	

** Taxable bond

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, 2022.

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. 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.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

NOTE 12 – LONG-TERM DEBT (cont.)

The Authority received direct borrowing loans from the State of Michigan Revolving Loan Fund during the year ended June 30, 2022 for the Water Fund totaling \$43,685,917 of which \$2,518,000 has been forgiven. The water loans forgiven and \$18,043,834 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. At June 30, 2022, the Authority has not fully drawn the amounts of authorized State of Michigan revolving fund bond issues. The amount of undrawn is \$142,864,641 for the Water Fund. Of these undrawn amounts, \$25,081,003 for the Water Fund are for pass through loans to DWSD.

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

The following is a schedule of the state revolving loans payable at June 30, 2022:

Issue	Bond Date	Amount Issued	Range of Interest Rates	Maturity Dates	Outstanding Ending Balance
Series 2005 SRF-1	9/22/05	\$ 13,805,164	2.125%	10/01/22-26	\$ 3,875,164
Series 2005 SRF-2	9/22/05	8,891,730	2.125%	10/01/22-26	2,446,730
Series 2006 SRF-1	9/21/06	5,180,926	2.125%	10/01/22-26	1,445,926
Series 2008 SRF-1	9/29/08	2,590,941	2.50%	10/01/22-28	750,941
Series 2016 SRF-1	9/16/16	8,273,168	2.50%	4/01/23-48	7,463,168
Series 2016 SRF-2	9/16/16	3,393,543	2.50%	4/01/23-48	3,053,543
Series 2017 SRF-1	6/23/17	5,807,931	2.50%	10/1/22-48	5,347,931
Series 2019 SRF-1	6/7/19	8,330,000	2.00%	10/1/22-40	7,985,000
Series 2019 SRF-2	8/30/19	29,950,000	2.00%	4/1/23-41	27,115,556
Series 2019 SRF-3	8/30/19	11,788,056	2.00%	10/1/22-43	7,742,932
Series 2020 SRF-1	7/31/20	20,538,700	2.00%	4/1/23-47	15,869,467
Series 2020 SRF-2	8/28/20	9,000,000	2.00%	10/1/23-32	3,623,516
Series 2020 SRF-3	8/28/20	8,960,000	2.00%	4/1/23-38	6,753,599
Series 2020 SRF-4	9/30/20	12,153,050	2.00%	4/1/23-38	5,325,829
Series 2021 SRF-1	6/21/21	11,940,000	1.875%	10/1/24-27	1,774,468
Series 2021 SRF-2	8/30/21	104,725,000	1.875%	10/1/24-25	7,154,223
Series 2021 SRF-3	8/30/21	11,528,950	1.875%	10/1/24-27	1,701,469
Total State Revolving Loans Payable					<u>\$ 109,429,462</u>

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

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. Net revenues are defined in the Great Lakes Water Authority Water 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, 2022 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 term of pledge commitment for the water bonds is through fiscal year 2050.

The table below has the pledged revenue coverage as of June 30, 2022:

Remaining principal and interest requirement	\$ 3,411,624,212
Principal and interest funding requirement for the year ending June 30, 2022 (calculated on a debt set aside basis consistent with rate covenant basis for rate determination)	\$ 176,589,315
Pledged revenue for the year ending June 30, 2022	\$ 248,350,508
Pledged revenue collected as a percentage of funding requirement	141%

At the 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, 2022.

DEBT RATINGS

In March 2020, Standard & Poor's Global Ratings Services affirmed the ratings on the water system senior lien debt of AA- and the water system second lien debt of A+ and assigned a stable outlook. The water system was assigned a stable outlook. Moody's Investor Services upgraded the ratings on the water system senior lien debt by one notch to A1 and second lien debt by one notch to A2. The ratings outlook for the water system remained stable. Fitch upgraded the ratings on the water system senior lien debt by one notch to A+ and second lien debt by one notch to an A. The water system was assigned a stable outlook.

In November 2018, S&P Global Ratings assigned an A+ rating to the Authority's junior lien water system SRF bonds.

See Note 20 for rating agency upgrades received in August 2022.

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).

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

NOTE 12 – LONG-TERM DEBT (cont.)

RAW WATER RIGHTS OBLIGATION (cont.)

The future credits to be issued are detailed below:

Year Ended June 30	Principal	Interest	Total
2023	\$ 2,845,282	\$ 3,806,495	\$ 6,651,777
2024	2,963,619	3,689,208	6,652,827
2025	3,085,994	3,567,008	6,653,002
2026	3,212,750	3,439,803	6,652,553
2027	3,345,194	3,307,356	6,652,550
2028 - 2032	18,909,553	14,351,041	33,260,594
2033 - 2037	23,142,653	10,118,496	33,261,149
2038 - 2042	27,813,547	4,943,999	32,757,546
2043 - 2046	10,042,464	462,187	10,504,651
Total	\$ 95,361,056	\$ 47,685,593	\$ 143,046,649

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.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

NOTE 12 – LONG-TERM DEBT (cont.)

BC NOTE OBLIGATION (cont.)

The following is a schedule of the BC Note obligation for the Financial Recovery Bonds at June 30, 2022:

Bond Issue (GLWA share)	Original Issue Amount (GLWA share)	Range of Interest Rates	Maturity Date	Outstanding Ending Balance
Series 2014-B	\$ 26,540,080	4.00% and variable	4/1/44	\$ 15,556,025
Series 2014-C	3,829,794	5.00%	6/30/27	986,268
Total				<u>\$ 16,542,293</u>

As of June 30, 2022, debt service requirements of the BC Note obligation for the Financial Recovery Bonds were as follows:

Year Ended June 30	Principal	Interest	Total
2023	\$ 203,954	\$ 671,554	\$ 875,508
2024	214,151	661,357	875,508
2025	1,002,661	650,649	1,653,310
2026	1,013,904	608,294	1,622,198
2027	885,004	565,378	1,450,382
2028 - 2032	3,889,008	2,333,405	6,222,413
2033 - 2037	3,889,008	1,975,616	5,864,624
2038 - 2042	3,889,008	1,166,702	5,055,710
2043 - 2044	1,555,595	140,004	1,695,599
Total	<u>\$ 16,542,293</u>	<u>\$ 8,772,959</u>	<u>\$ 25,315,252</u>

INTEREST EXPENSE

The following represents the amounts recorded as interest expense for the year ended June 30, 2022:

Revenue bonds and loans	\$ 103,645,614
Regional System Lease	17,026,165
Raw water rights obligation	3,733,333
BC Note obligation	<u>681,267</u>
Total Interest Expense	<u>\$ 125,086,379</u>

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

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. 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. In addition, the 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.

Amounts reported as a liability at year-end represent the net present value of all future lease payments. Changes in the Water Regional Systems lease payable for the year ended June 30, 2022 is as follows:

Beginning Balance	Increase	Decrease	Ending Balance	Amount due Within One Year*
\$ 411,237,284	\$ -	\$ (5,454,877)	\$ 405,782,407	\$ 5,686,745

* The current portion represents the 12 monthly payments required from July 1, 2022 through June 30, 2023. Future revenues are intended to cover these payments.

As of June 30, 2022, aggregate requirements of the Water Regional Systems lease is as follows:

Year Ended June 30	Principal	Interest	Total
2023	\$ 5,686,745	\$ 16,813,255	\$ 22,500,000
2024	5,928,467	16,571,533	22,500,000
2025	6,180,464	16,319,536	22,500,000
2026	6,443,173	16,056,827	22,500,000
2027	6,717,048	15,782,952	22,500,000
2028 - 2032	38,118,590	74,381,410	112,500,000
2033 - 2037	46,938,614	65,561,386	112,500,000
2038 - 2042	57,799,449	54,700,551	112,500,000
2043 - 2047	71,173,304	41,326,696	112,500,000
2048 - 2052	87,641,652	24,858,348	112,500,000
2053 - 2056	73,154,901	5,595,099	78,750,000
Total	<u>\$ 405,782,407</u>	<u>\$ 347,967,593</u>	<u>\$ 753,750,000</u>

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

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

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

NOTE 14 – OTHER LIABILITIES

Changes in other liabilities for the year ended June 30, 2022 were as follows:

	Beginning Balance	Increase	Decrease	Ending Balance	Due Within One Year
Compensated absences	\$ 4,781,806	\$ 3,519,343	\$ (3,503,387)	\$ 4,797,762	\$ 2,739,783
Workers' compensation	330,817	717,963	(835,480)	213,300	138,300
Claims and judgements	150,000	425,000	(75,000)	500,000	500,000
Cash held for the benefit of DWSD budget stabilization	2,000,000	-	-	2,000,000	-
Total	\$ 7,262,623	\$ 4,662,306	\$ (4,413,867)	\$ 7,511,062	\$ 3,378,083

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, 2022 for PTO accruals are \$2,754,143 for the Water Fund of which \$2,472,131 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, 2022 balance of the accrued compensated absences for the liability assumed on January 1, 2016 is approximately \$2,043,619 of which \$267,652 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.

WORKERS' COMPENSATION

Workers' compensation is discussed in Note 15 Risk Management/Self-Insurance Programs.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

NOTE 14 – OTHER LIABILITIES (cont.)

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.

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.

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	\$0
Fiduciary	\$15,000,000	\$10,000
General Liability	\$750,000,000	\$1,000,000
Pollution Legal Liability	\$25,000,000	\$500,000
Property Damage	\$750,000,000	\$1,000,000/\$3,500,000 for conveyor operations
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 WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

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.

	2022	2021
Unpaid claims, beginning of year	\$ 917,531	\$ 1,376,431
Incurred claims (including change in IBNR provisions)	10,510,451	11,113,461
Claims payments	(10,662,187)	(11,572,361)
Unpaid Claims, End of Year	\$ 765,795	\$ 917,531

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:

	2022	2021
Unpaid claims, beginning of year	\$ 330,817	\$ 251,834
Incurred claims (including change in IBNR provisions)	717,963	337,010
Claims payments	(835,480)	(258,027)
Unpaid Claims, End of Year	\$ 213,300	\$ 330,817

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

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 earnings to the plan. The Authority will make an additional contribution to the 401(a) plan to match employee contributions under the Great Lakes Water Authority 457 Plan up to 3% of compensation. Employees are 100% vested after three years of service (cliff vesting). Employees who transferred to the Authority on or around January 1, 2016 from DWSD retain their years of service for vesting purposes. The Authority recognized expense of \$5,154,140, which is net of forfeitures of \$349,255, for the year ended June 30, 2022. The Authority has accrued approximately \$60,000 of expense on the accrued payroll at June 30, 2022. At June 30, 2022, there were 1,175 plan members.

The Great Lakes Water Authority Defined Contribution Plan Make-Up Benefit is a 401(a) governmental money purchase plan administered by ICMA Retirement Corporation (the “Administrator”) to provide benefits at retirement to all employees who terminated employment with DWSD on or around January 1, 2016 and were not vested in the City of Detroit General Retirement System (GRS). Eligible employees were required to rollover to the Authority’s Section 457 Deferred Compensation Plan their refunded employee mandatory contribution from GRS. The amount of the make-up benefit was determined by an actuary based on the present value of the lost GRS benefit. It was accrued in fiscal year 2018 and funded during fiscal year 2019. No additional contributions are required for this plan. Employees are 100% vested after one year of service. At June 30, 2022 there are 28 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, 2022 there were 1,196 plan members.

The Authority has a Roth IRA Plan which allows employees to make post-tax contributions which are immediately 100% vested. At June 30, 2022 there were 87 plan members.

RETIREMENT HEALTH SAVINGS PLAN

The Authority also provides a Retirement Health Savings Program for full-time employees. Employees are required to contribute \$10 per pay period and the Authority contributes \$80 per pay period. Employees are 100% vested after three years of service (cliff vesting). Employees who transferred to the Authority on or around January 1, 2016 from DWSD retain their years of service for vesting purposes. The Authority recognized an expense \$1,937,556, which is net of forfeitures of \$195,586, for the year ended June 30, 2022. The Authority has accrued approximately \$21,000 of expense on the accrued payroll at June 30, 2022. Employee contributions were \$256,640 for the year ended June 30, 2022. At June 30, 2022, there were 1,648 plan members.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

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 required 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, 2021 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.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

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

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

During the Plan's fiscal year 2021, employer contributions were not actuarially determined, but are determined by the provisions of the POA. Included within contributions for fiscal year 2021 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 2022. This includes a contribution to the GRS pension plan of \$10,810,800 for the Water Fund. 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. 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, 2021. The total share for the DWSD is estimated to be \$0.6 million. GLWA's share of the 2024 estimated contribution will be \$0.42 million with approximately \$0.15 million allocated to the Water Fund.

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

DWSD Employee Contributions. Contribution requirements of plan members are established and may be amended by the GRS Board of Trustees in accordance with the City Charter, union contracts, and plan provisions. For the year ended June 30, 2021, 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, 2020, which used updated procedures to roll forward the estimated liability to June 30, 2021. 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	6.50%, net of investment expense and including inflation

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

The actuarial assumptions, other than mortality and the investment rate of return were based on the results of an actuarial experience study for the period from 2002-2007.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

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

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 arithmetic real rates of return as of June 30, 2021, for each major asset class included in the pension plan’s target allocation, and those target allocations, are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global equity	46.0%	5.80%
Global fixed income	33.0%	3.28%
Real estate	13.0%	5.94%
Diversifying strategies	8.0%	3.22%
	100.0%	

Single Discount Rate. A Single Discount Rate of 6.50%, net of investment expenses, was used to measure the total pension liability as of June 30, 2021. This Single Discount Rate was based on the expected rate of return on pension plan investments of 6.50% 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, 2021, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date.

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

Total pension liability	\$ 183,593,989
Plan fiduciary net position	(160,214,509)
Net Pension Liability	\$ 23,379,480

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

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

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) – (b)
Balances at June 30, 2021	\$ 182,181,063	\$ 130,452,884	\$ 51,728,179
Changes for the year:			
Interest	12,299,693	-	12,299,693
Difference between expected and actual experience	(3,299,415)	-	(3,299,415)
Changes in assumptions	8,341,534	-	8,341,534
Employer contributions	-	10,810,800	(10,810,800)
Net investment income	-	34,407,230	(34,407,230)
Benefit payments, including refunds of employee contributions	(15,928,886)	(15,928,886)	-
Other changes	-	472,481	(472,481)
Net changes	1,412,926	29,761,625	(28,348,699)
Balances at June 30, 2022	\$ 183,593,989	\$ 160,214,509	\$ 23,379,480

Sensitivity of the Net Pension Liability to Changes in the Discount Rate. The following presents the net pension liability of the Water Fund, calculated using the discount rate of 6.50%, as well as what the Water Fund's net pension liability would be if it were calculated using a discount rate that is 1% lower (5.50%) or 1% higher (7.50%) than the current rate:

	1% Decrease (5.50%)	Current Discount Rate (6.50%)	1% Increase (7.50%)
Net Pension Liability	\$ 29,783,783	\$ 23,379,480	\$ 17,911,167

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, 2022, the Authority recognized pension expense of \$4,988,132 for the Water Fund. At June 30, 2022, the Water Fund reported deferred outflows and inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows (Inflows) of Resources
Net difference between projected and actual earnings on pension plan investments	\$ -	\$ 11,224,189	\$ (11,224,189)
Employer contributions to the plan subsequent to the measurement date	10,810,800	-	10,810,800
Total	\$ 10,810,800	\$ 11,224,189	\$ (413,389)

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

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

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	
2023	\$ (1,840,794)
2024	(1,479,001)
2025	(2,832,144)
2026	<u>(5,072,250)</u>
Total	<u>\$ (11,224,189)</u>

Payable to the Pension Plan. At June 30, 2022, the Authority did not have any outstanding contributions payable to the pension plan for the year then ended.

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 \$965.6 million with an 80% spend rate assumption of \$772.5 million through fiscal year 2027. 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, 2022 was approximately \$332 million for the Water Fund.

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 2024. 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 \$4.3 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 \$5.1 million. The remaining commitment under this contract is \$4.8 million. The anticipated in-service date for HR and payroll is January 2024, and the financial system in July 2024. There is a separate implementation contract which terminates in 2029 for a not to exceed cost of \$4.6 million. The Authority's remaining commitment under this contract is \$4 million. Implementation costs incurred up to the date placed in service will be capitalized.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS As of and for the Year Ended June 30, 2022

NOTE 18 – COMMITMENTS AND CONTINGENCIES (cont.)

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, 2022.

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, 2022.

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 \$500,000 for the Water Fund, which is 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 WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

NOTE 19 – NET INVESTMENT IN CAPITAL ASSETS

The composition of net investment in capital assets as of June 30, 2022 was as follows:

Capital Assets and Intangible Asset	
Capital assets not being depreciated	\$ 567,414,021
Capital assets being depreciated, net	1,293,659,589
Intangible asset – net	<u>90,652,709</u>
Total Capital Assets and Intangible Asset	<u>1,951,726,319</u>
Less: Related Debt	
Total bonds and loans, net (Note 12)	2,399,329,541
Less: Portion of bonds used for SWAP termination agreements	(168,094,391)
Less: Obligation receivable-local share of debt (Note 8)	(567,619,210)
Deferred charge on refunding	(41,997,055)
Deferred gain on refunding	48,216,421
Capital portion of regional system lease	295,693,640
Lease obligation-raw water rights (Note 12)	<u>95,361,056</u>
Total Related Debt	<u>2,060,890,002</u>
Net Investment in Capital Assets	<u>\$ (109,163,683)</u>

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

WATER MAIN BREAK

On August 13, 2022 the Authority's System Control Center identified that there was a break in the system and notified the Lake Huron Water Treatment Facility Team (LH) to go find the physical location of the break. The LH Team found the break in a farm field on a 120-inch water transmission main about a mile from the plant. This main is the largest in the regional water transmission system – providing water to the northernmost communities in our service area. The transmission main was repaired and returned to service during the weekend of October 1st, 2022. GLWA was able to increase production at the Northeast and Springwells Water Treatment plants and made changes to how water is routed in the system to restore water flow and pressure in the system. The City of Flint water was sourced under a back-up agreement with the Genesee County Drain Commission starting August 13, 2022. Normal operations with the City of Flint were restored on October 13, 2022. Repair costs are expected to be between \$2 million and \$3 million and will be paid for from unallocated reserves in the Water Fund.

JUNIOR LIEN REVENUE BONDS

The Authority received an order of approval from EGLE in August 2022, for \$34.1 million for regional water system improvements. This order of approval is for the \$40 million SRF Junior Lien Water Supply System Revenue Bonds (Ordinance No. 2022-03) approved by the GLWA Board in June 2022.

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

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended June 30, 2022

NOTE 20 – SUBSEQUENT EVENTS (cont.)

RATING AGENCY UPGRADES

In August 2022, S&P Global Ratings affirmed the Authority's senior lien water disposal system 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 senior lien rating of A1, and its second lien ratings of A2. The outlook was moved to positive from stable. Fitch affirmed the Authority's ratings for its water system senior lien bonds at an A+, and its second lien bonds at an A. The water system outlook remained stable.

WATER BOND NEW MONEY TRANSACTION

On September 13, 2022, the Authority issued \$207,215,000 of Water Supply System Revenue Bonds in new money.

REQUIRED SUPPLEMENTARY INFORMATION

GREAT LAKES WATER AUTHORITY WATER FUND

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						
	2022	2021	2020	2019	2018	2017	2016
Measurement Date	2021*	2020*	2019*	2018*	2017*	2016*	2015**
Share of Total Pension Liability							
Interest	\$ 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	(3,299,415)	(3,679,680)	1,241,001	(114,927)	849,266	(1,815,233)	(153,112)
Changes in assumptions	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	(15,928,886)	(16,166,129)	(16,671,401)	(16,989,833)	(18,310,822)	(24,963,262)	(19,462,302)
Net change	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	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	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	10,808,000
Employee contributions	-	-	-	-	-	-	46,941
Net investment income (loss)	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	(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	472,481	423,755	(42,826)	496,841	535,562	90,427	9,950,436
Net change	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	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	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	<u>\$ 23,379,480</u>	<u>\$ 51,728,179</u>	<u>\$ 47,643,374</u>	<u>\$ 47,310,460</u>	<u>\$ 64,151,352</u>	<u>\$ 69,569,044</u>	<u>\$ 61,021,079</u>
Nonemployer contributing entity share of collective net pension liability - Water Fund	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	87.3%	71.6%	74.2%	74.6%	67.6%	64.6%	69.9%

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

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

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

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

GREAT LAKES WATER AUTHORITY WATER FUND

REQUIRED SUPPLEMENTARY INFORMATION

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

	Fiscal Year						
	2022*	2021*	2020*	2019*	2018*	2017*	2016*
Contractually required contribution**	\$ 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>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

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

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

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

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

GREAT LAKES WATER AUTHORITY WATER FUND

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, 2022

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.

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

SUPPLEMENTARY INFORMATION

GREAT LAKES WATER AUTHORITY WATER FUND

COMBINING SCHEDULE OF NET POSITION - WATER FUND

As of June 30, 2022

	Water Operations Fund	Water Improvement and Extension Fund	Water Construction Fund	Total Water Fund
Assets				
Current Assets				
Cash and cash equivalents	\$ 94,861,553	\$ 29,192,915	\$ 23,136,552	\$ 147,191,020
Restricted cash and cash equivalents	34,834,402	-	14,235,345	49,069,747
Restricted cash for the benefit of DWSD	11,371,285	-	-	11,371,285
Investments	26,195,404	65,304,455	-	91,499,859
Restricted investments	30,711,544	-	-	30,711,544
Receivables				
Billed	54,169,640	-	-	54,169,640
Unbilled	30,349,758	-	-	30,349,758
Other	295,791	-	-	295,791
Allowance for doubtful accounts	(13,917,234)	-	-	(13,917,234)
Due from other governments	11,246,188	-	-	11,246,188
Due from other funds	-	1,543,503	784,583	2,328,086
Due from other water funds	-	3,972,809	399,496	4,372,305
Contractual obligation receivable	18,126,021	-	-	18,126,021
Prepaid items and other assets	8,611,410	90,077	-	8,701,487
Total Current Assets	306,855,762	100,103,759	38,555,976	445,515,497
Noncurrent Assets				
Restricted cash and cash equivalents	2,773,291	-	-	2,773,291
Restricted investments	9,506,991	-	-	9,506,991
Contractual obligation receivable	549,493,189	-	-	549,493,189
Prepaid lease	11,250,000	-	-	11,250,000
Assets not subject to depreciation or amortization	567,414,021	-	-	567,414,021
Capital assets being depreciated, net	1,293,659,589	-	-	1,293,659,589
Intangible assets, net	90,652,709	-	-	90,652,709
Prepaid insurance on debt	6,649,782	-	-	6,649,782
Total noncurrent assets	2,531,399,572	-	-	2,531,399,572
Total Assets	2,838,255,334	100,103,759	38,555,976	2,976,915,069
Deferred outflows of resources				
Deferred charge on refunding	41,997,055	-	-	41,997,055
Deferred pension amounts	10,810,800	-	-	10,810,800
Total Deferred Outflows of Resources	52,807,855	-	-	52,807,855

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	\$ 21,143,337	\$ 1,805,348	\$ 33,942,086	\$ 56,890,771
Accrued salaries, wages and benefits	1,046,674	-	-	1,046,674
Accrued liabilities	15,261,427	-	-	15,261,427
Due to other governments	17,610,601	-	-	17,610,601
Due to other water funds	4,329,759	42,546	-	4,372,305
Interest payable	36,398,995	-	-	36,398,995
Current portion of:				
Revenue bonds and loans	40,091,255	-	-	40,091,255
Raw water rights obligation	2,845,282	-	-	2,845,282
BC Note obligation	203,954	-	-	203,954
Regional system lease	5,686,745	-	-	5,686,745
Other liabilities	3,378,083	-	-	3,378,083
Total Current Liabilities	<u>147,996,112</u>	<u>1,847,894</u>	<u>33,942,086</u>	<u>183,786,092</u>
Noncurrent Liabilities				
Revenue bonds and loans	2,359,238,286	-	-	2,359,238,286
Raw water rights obligation	92,515,774	-	-	92,515,774
BC Note obligation	16,338,339	-	-	16,338,339
Regional system lease	400,095,662	-	-	400,095,662
Other liabilities	4,132,979	-	-	4,132,979
Net pension liability	23,379,480	-	-	23,379,480
Total Noncurrent Liabilities	<u>2,895,700,520</u>	<u>-</u>	<u>-</u>	<u>2,895,700,520</u>
Total Liabilities	<u>3,043,696,632</u>	<u>1,847,894</u>	<u>33,942,086</u>	<u>3,079,486,612</u>
Deferred Inflows of Resources				
Deferred gain on refunding	48,216,421	-	-	48,216,421
Deferred amounts for swap terminations	61,438	-	-	61,438
Deferred pension amounts	11,224,189	-	-	11,224,189
Total Deferred Inflows of Resources	<u>59,502,048</u>	<u>-</u>	<u>-</u>	<u>59,502,048</u>
Net Position (Deficit)				
Net investment in capital assets	(109,163,683)	-	-	(109,163,683)
Restricted for debt service	31,660,045	-	-	31,660,045
Restricted for payment assistance program	5,272,708	-	-	5,272,708
Unrestricted	(139,904,561)	98,255,865	4,613,890	(37,034,806)
TOTAL NET POSITION	<u>\$ (212,135,491)</u>	<u>\$ 98,255,865</u>	<u>\$ 4,613,890</u>	<u>\$ (109,265,736)</u>

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

GREAT LAKES WATER AUTHORITY WATER FUND

COMBINING SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION - WATER FUND
For the Year Ended June 30, 2022

	Water Operations Fund	Water Improvement and Extension Fund	Water Construction Fund	Total Water Fund
Operating Revenues				
Wholesale customer charges	\$ 323,026,213	\$ -	\$ -	\$ 323,026,213
Local system charges	21,697,300	-	-	21,697,300
Other revenues	<u>234,462</u>	<u>-</u>	<u>-</u>	<u>234,462</u>
Total Operating Revenues	<u>344,957,975</u>	<u>-</u>	<u>-</u>	<u>344,957,975</u>
Operating Expenses				
Operating expenses before depreciation and amortization				
Personnel	44,892,622	-	-	44,892,622
Contractual services	49,143,743	1,540,154	-	50,683,897
Utilities	28,725,292	-	-	28,725,292
Chemicals	7,788,784	-	-	7,788,784
Supplies and other expenses	9,157,367	-	-	9,157,367
Capital program allocation	(1,618,459)	-	-	(1,618,459)
Intergovernmental reimbursements	<u>(1,813,535)</u>	<u>-</u>	<u>-</u>	<u>(1,813,535)</u>
Total Operating Expenses Before Depreciation and Amortization	136,275,814	1,540,154	-	137,815,968
Depreciation	123,196,027	-	-	123,196,027
Amortization of intangible assets	<u>3,566,664</u>	<u>-</u>	<u>-</u>	<u>3,566,664</u>
Total Operating Expenses	<u>263,038,505</u>	<u>1,540,154</u>	<u>-</u>	<u>264,578,659</u>
Operating Income (Loss)	<u>81,919,470</u>	<u>(1,540,154)</u>	<u>-</u>	<u>80,379,316</u>
Nonoperating Revenues (Expenses)				
Earnings (loss) on investments	(936,892)	(1,457,077)	32,573	(2,361,396)
Interest on obligations receivable	25,107,207	-	-	25,107,207
Interest expense	(125,086,379)	-	-	(125,086,379)
Amortization of debt related items and cost of issuance	15,610,434	-	-	15,610,434
Legacy pension expense	(4,988,132)	-	-	(4,988,132)
WRAP (Water Residential Assistance Program)	(1,049,908)	-	-	(1,049,908)
Other	388,656	-	-	388,656
Capital outlay	<u>161,296,514</u>	<u>(3,668,396)</u>	<u>(157,628,118)</u>	<u>-</u>
Total Nonoperating Revenues (Expenses)	<u>70,341,500</u>	<u>(5,125,473)</u>	<u>(157,595,545)</u>	<u>(92,379,518)</u>
Income (Loss) Before Transfers	152,260,970	(6,665,627)	(157,595,545)	(12,000,202)
Transfer in	2,164,216	23,739,800	149,803,527	175,707,543
Transfer out	<u>(49,381,883)</u>	<u>(126,293,770)</u>	<u>(31,890)</u>	<u>(175,707,543)</u>
Change in net position	105,043,303	(109,219,597)	(7,823,908)	(12,000,202)
NET POSITION (DEFICIT), Beginning of Year	<u>(317,178,794)</u>	<u>207,475,462</u>	<u>12,437,798</u>	<u>(97,265,534)</u>
NET POSITION (DEFICIT), END OF YEAR	<u>\$ (212,135,491)</u>	<u>\$ 98,255,865</u>	<u>\$ 4,613,890</u>	<u>\$ (109,265,736)</u>

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

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

GREAT LAKES WATER AUTHORITY WATER FUND

SCHEDULE OF INTERFUND RECEIVABLES AND PAYABLES
For the Year Ended June 30, 2022

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, 2022 consisted of the following:

	Sewage Disposal Fund due to Water Fund			Total
	Sewer Operations Fund	Sewer Improvement and Extension Fund	Sewer Construction Fund	
Water Operations Fund	\$ -	\$ -	\$ -	\$ -
Water Improvement and Extension Fund	-	1,543,503	-	1,543,503
Water Construction Fund	<u>15,877</u>	<u>89,947</u>	<u>678,759</u>	<u>784,583</u>
TOTALS	<u>\$ 15,877</u>	<u>\$ 1,633,450</u>	<u>\$ 678,759</u>	<u>\$ 2,328,086</u>

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

GREAT LAKES WATER AUTHORITY WATER FUND

SCHEDULE OF OPERATING EXPENSES FOR WATER OPERATIONS - BUDGET TO ACTUAL For the Year Ended June 30, 2022

	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	\$ 76,206,731	\$ 74,108,755	\$ (26,939,300)	\$ 47,169,455	\$ 44,892,622	\$ (2,276,833)	-4.83%
Contractual services	80,082,220	84,543,809	(34,770,100)	49,773,709	49,143,743	(629,966)	-1.27%
Utilities	26,914,388	28,986,600	(180,800)	28,805,800	28,725,292	(80,508)	-0.28%
Chemicals	6,662,600	7,409,400	-	7,409,400	7,788,784	379,384	5.12%
Supplies and other expenses	22,591,026	19,809,247	(7,953,800)	11,855,447	9,157,367	(2,698,080)	-22.76%
Capital program allocation	(2,178,251)	(1,695,851)	-	(1,695,851)	(1,618,459)	77,392	-4.56%
Intergovernmental reimbursements	(1,547,600)	(2,430,800)	-	(2,430,800)	(1,813,535)	617,265	-25.39%
Centralized services allocation	(51,819,100)	(51,466,900)	51,466,900	-	-	-	0.00%
Administrative services allocation	(17,509,300)	(19,470,300)	19,470,300	-	-	-	0.00%
Unallocated reserve	4,531,086	4,139,840	(1,254,000)	2,885,840	-	(2,885,840)	-100.00%
Total operating expenses before depreciation and amortization financial reporting basis	143,933,800	143,933,800	(160,800)	143,773,000	136,275,814	(7,497,186)	
SBITA [1]	-	-	160,800	160,800	160,753	(47)	0.00%
TOTAL OPERATING EXPENSES BUDGET BASIS	\$ 143,933,800	\$ 143,933,800	\$ -	\$ 143,933,800	\$ 136,436,567	\$ (7,497,233)	-5.21%

[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 WATER FUND

SCHEDULE OF REVENUE REQUIREMENTS BUDGET TO ACTUAL - WATER OPERATIONS For the Year Ended June 30, 2022

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 budgeted, adjusted for amendments, for comparison with actual revenues, expenses, and other payments. Overall, Water Operations experienced a positive variance of approximately \$8.2 million.

	2022 Adopted Budget	2022 Amended Budget	2022 Actual	Variance Over (Under) Amended Budget
Revenues				
Revenue from charges				
Suburban wholesale customers [1]	\$ 321,110,900	\$ 315,010,900	\$ 316,529,785	\$ 1,518,885
Local system charges	<u>21,697,300</u>	<u>21,697,300</u>	<u>21,697,300</u>	<u>-</u>
Total revenue from charges	<u>342,808,200</u>	<u>336,708,200</u>	<u>338,227,085</u>	<u>1,518,885</u>
Other revenue [2]	175,000	684,400	775,537	91,137
Investment earnings [3]	<u>1,047,300</u>	<u>1,923,800</u>	<u>1,945,613</u>	<u>21,813</u>
Total Revenues	<u>\$ 344,030,500</u>	<u>\$ 339,316,400</u>	<u>\$ 340,948,235</u>	<u>\$ 1,631,835</u>
Revenue Requirements				
Operations and maintenance [4]	\$ 143,933,800	\$ 143,933,800	\$ 136,436,567	\$ (7,497,233)
General Retirement System legacy pension	6,048,000	6,048,000	6,048,000	-
Debt service	135,481,000	135,121,000	136,039,760	918,760
General Retirement System accelerated pension	6,268,300	6,268,300	6,268,300	-
Water Residential Assistance Program contribution	1,705,500	1,705,500	1,705,500	-
Regional system lease	22,500,000	22,500,000	22,500,000	-
Transfer to the Improvement & Extension Fund	<u>28,093,900</u>	<u>23,739,800</u>	<u>23,739,800</u>	<u>-</u>
Total Revenue Requirements	<u>\$ 344,030,500</u>	<u>\$ 339,316,400</u>	<u>\$ 332,737,927</u>	<u>\$ (6,578,473)</u>
Revenue Requirement Variance	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 8,210,308</u>	<u>\$ 8,210,308</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 \$6,496,428 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. There were no bond proceeds remaining in the construction fund during the current fiscal year.

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

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

GREAT LAKES WATER AUTHORITY WATER FUND

SCHEDULE OF REVENUE REQUIREMENTS TO STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION CROSSWALK

For the Year Ended June 30, 2022

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.
- GASB 96 items are expenses for budget purposes but are capitalized and amortized for financial reporting purposes.
- Contributions to the Regional System Improvement & Extension Fund are an expense for the budget basis while the accrual basis financial report treats this activity as an increase in assets.
- Depreciation and amortization are not a components of the budget basis while the accrual basis financial report treats these as an expense.

Revenue Requirement Variance from Schedule of Revenue Requirements

\$ 8,210,308

Budgetary adjustments to financial reporting basis

Pension delayed accounting election adjustments:

Current year pension payments recorded as deferral	10,810,800
Prior year pension deferral accounted for in current year	(4,988,132)
Administrative fee prepaid adjustment	467,582
Debt service	57,501,353
BC Note obligation	194,233
Regional system lease	5,473,835
GASB 96 adjustments	160,753
Water Residential Assistance Program (WRAP)	655,592
Improvement & Extension fund transfers	23,739,800

Nonbudgeted financial reporting adjustments

Depreciation and amortization	(126,762,691)
Amortization - debt related	15,610,434
Improvement & Extension operating expenses	(1,540,154)
Gain (loss) on disposal of capital assets	9,999
Raw water rights obligation	2,763,095
Investment earnings unrealized gain (loss)	<u>(4,307,009)</u>

Change in Net Position per Statement of Revenues, Expenses and Changes in Net Position

\$ (12,000,202)

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

GREAT LAKES WATER AUTHORITY WATER FUND

WATER IMPROVEMENT AND EXTENSION FUND - BUDGET TO ACTUAL

For the Year Ended June 30, 2022

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 a decrease of \$109.2 million in net position which represents use of I&E funds reserved from prior years. This was expected as it aligns with the capital funding strategy. The system experienced a positive budget variance of approximately \$20.3 million.

	Adopted Budget	Amended Budget	Actual [3]	Variance Over (Under) Amended Budget
Inflows				
Revenue transfers	\$ 28,093,900	\$ 23,739,800	\$ 23,739,800	\$ -
Investment earnings [1]	-	1,329,000	1,335,993	6,993
Total Inflows	<u>28,093,900</u>	<u>25,068,800</u>	<u>25,075,793</u>	<u>6,993</u>
Outflows				
Capital spending other (net operating expenses)	-	1,500,000	1,540,154	40,154
Capital outlay	17,006,600	6,288,092	3,668,396	(2,619,696)
GASB 96 transfer to operating fund [2]	-	-	253,171	253,171
Investment earnings transfer out [1]	-	1,329,000	1,879,155	550,155
Revenue financed capital - transfer to Water Construction Fund	108,308,000	142,635,308	124,161,444	(18,473,864)
Total Outflows	<u>125,314,600</u>	<u>151,752,400</u>	<u>131,502,320</u>	<u>(20,250,080)</u>
Net Increase (Decrease) - Budget Basis	<u>\$ (97,220,700)</u>	<u>\$ (126,683,600)</u>	(106,426,527)	<u>\$ 20,257,073</u>
Non-budgeted inflows (outflows)				
Unrealized net decrease in fair value of investments			(2,793,070)	
Combining Schedule Water I&E Fund Change in Net Position [3]			<u>\$ (109,219,597)</u>	

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

[2] 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 operating fund for this analysis. See Note 2 in the Notes to Supplementary Information.

[3] 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.

GREAT LAKES WATER AUTHORITY WATER FUND

WATER CONSTRUCTION FUND - BUDGET TO ACTUAL For the Year Ended June 30, 2022

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 a decrease of \$7.8 million in net position which represents use of construction funds from prior periods. This was expected as it aligns with the capital funding strategy. They system experienced a negative budget variance of approximately \$7.8 million.

	Adopted Budget	Amended Budget	Actual [2]	Variance Over (Under) Amended Budget
Inflows				
Transfers from Water Improvement & Extension Fund	\$ 108,308,000	\$ 142,635,300	\$ 124,161,444	\$ (18,473,856)
State revolving loans	26,100,000	27,000,000	25,642,083	(1,357,917)
Investment earnings [1]	-	-	32,093	32,093
Total Inflows	134,408,000	169,635,300	149,835,620	(19,799,680)
Outflows				
Investment earnings transfer out [1]	-	-	31,890	31,890
Capital projects	134,408,000	169,635,300	157,628,118	(12,007,182)
Total Outflows	134,408,000	169,635,300	157,660,008	(11,975,292)
Net Increase (Decrease) - Budget Basis	\$ -	\$ -	(7,824,388)	\$ (7,824,388)
Non-budgeted inflows (outflows)				
Unrealized net increase in fair value of investments			480	
Combining Schedule Water Construction Fund Change in Net Position [2]			\$ (7,823,908)	

[1] 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. There were no bond proceeds remaining in the construction fund during the current fiscal year.

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

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

GREAT LAKES WATER AUTHORITY WATER FUND

SCHEDULE OF DAYS CASH - LIQUIDITY
As of June 30, 2022

	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016*</u>
Cash and investments - Unrestricted	\$ 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	\$ 264,578,659	\$ 250,476,297	\$ 263,282,730	\$ 263,959,730	\$ 254,602,752	\$ 245,868,861	\$ 120,841,204
Less: depreciation	(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	<u>(3,566,664)</u>	<u>(3,566,664)</u>	<u>(3,566,664)</u>	<u>(3,566,664)</u>	<u>(2,080,554)</u>	-	-
Net Operating Expense	\$ <u>137,815,968</u>	\$ <u>123,638,092</u>	\$ <u>132,532,838</u>	\$ <u>119,821,946</u>	\$ <u>108,530,383</u>	\$ <u>101,730,949</u>	\$ <u>49,545,659</u>
Operating Expense per Day (365 days)	\$ <u>377,578</u>	\$ <u>338,734</u>	\$ <u>363,104</u>	\$ <u>328,279</u>	\$ <u>297,344</u>	\$ <u>278,715</u>	\$ <u>273,733</u>
Days Cash							
Number of days cash	<u>632</u>	<u>1,043</u>	<u>1,086</u>	<u>1,058</u>	<u>1,066</u>	<u>959</u>	<u>611</u>

* 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 WATER FUND

NOTES TO SUPPLEMENTARY INFORMATION For the Year Ended June 30, 2022

Note 1 – Combining Fund Schedules

The Combining Fund Schedules presented combined the three funds the Authority maintains in the Water Fund. The following describes the three 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.

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.

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.

Note 2 – Budget to Actual Schedules

Schedule of Operating Expenses – Budget to Actual

The schedule of operating expenses for the water system 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 reported in the Combining Schedule of Revenues, Expenses and Changes in Net position for the Water Fund. 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, 2022.

Schedule of Revenue Requirements – 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 96 as described in the note above, in addition to cash payments for debt service, legacy pension obligations, water residential assistance program and regional system lease related activities.

GREAT LAKES WATER AUTHORITY WATER FUND

NOTES TO SUPPLEMENTARY INFORMATION For the Year Ended June 30, 2022

Note 2 – Budget to Actual Schedules (cont.)

The revenue requirements 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 the Regional Water 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 Requirements to Statement of Revenues, Expenses and Changes in Net Position Crosswalk

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

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STATISTICAL SECTION

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GREAT LAKES WATER AUTHORITY WATER FUND

STATISTICAL SECTION TABLE OF CONTENTS

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

The statistical section information is presented in the following categories:

		<u>Page</u>
Financial Trends Schedules 1 through 2	Financial trends information is intended to show how the Authority's financial position has changed over time.	63
Revenue Capacity Schedules 3 through 5	Revenue capacity information is intended to show the factors affecting the Authority's ability to generate its own-source revenue.	66
Debt Capacity Information Schedules 6 through 10	Debt capacity information is intended to show the Authority's debt burden and its ability to issue additional debt.	69
Demographic and Economic Schedules 11 through 12	Demographic and economic information is intended to show the socioeconomic environment within which the Authority operates.	76
Operating Information Schedules 13 through 14	Operating information is intended to show contextual information about operations and resources to provide understanding and assessing the Authority's economic condition.	78

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

GREAT LAKES WATER AUTHORITY WATER FUND

SCHEDULE OF NET POSITION - WATER FUND

As of June 30, 2022

	2022	2021	2020	2019	2018	2017	2016
Assets							
Current Assets							
Cash and cash equivalents	\$ 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	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	11,371,285	3,144,400	1,544,529	2,690,397	8,418,827	288,378	10,430
Investments	91,499,859	190,541,958	305,653,818	198,561,135	7,004,525	852,420	11,579,681
Restricted investments	30,711,544	2,932,400	30,900,352	1,468,148	1,234,954	1,169,187	27,818,000
Receivables							
Billed	54,169,640	48,694,817	38,769,605	38,336,701	38,272,740	36,459,563	37,629,170
Unbilled	30,349,758	30,066,884	31,032,237	26,144,348	29,229,709	29,539,433	32,307,945
Other	295,791	85,494	214,997	916,074	5,850	1,300	21,899,046
Allowance for doubtful accounts	(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	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	2,328,086	2,786,344	2,134,191	2,876,954	330,293	-	-
Contractual obligation receivable	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	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	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	2,773,291	2,519,127	20,491,397	32,154,262	18,261,706	177,939,494	5,460,942
Restricted investments	9,506,991	8,651,762	10,770,585	77,075,423	150,436,225	20,530,374	42,841,345
Contractual obligation receivable	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	-
Assets not subject to depreciation or amortization	567,414,021	498,010,970	418,996,654	467,830,218	434,684,895	452,185,674	415,558,090
Capital assets being depreciated, net	1,293,659,589	1,324,554,087	1,390,129,473	1,390,765,435	1,499,118,693	1,587,291,603	1,728,054,410
Intangible asset - raw water rights, net	90,652,709	94,219,373	97,786,037	101,352,701	104,919,365	-	-
Prepaid insurance on debt	6,649,782	7,304,243	7,958,703	8,754,897	13,002,376	14,112,324	20,831,496
Total Noncurrent Assets	2,531,399,572	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	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	41,997,055	44,677,823	47,358,590	82,508,971	94,431,823	99,294,499	116,511,949
Deferred pension amounts	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	52,807,855	66,790,465	62,651,084	93,878,467	113,077,542	120,786,005	130,132,511

	2022	2021	2020	2019	2018	2017	2016
Liabilities							
Current Liabilities							
Accounts and contracts payable	\$ 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	1,046,674	4,892,033	5,321,864	4,284,220	4,734,956	3,190,038	2,887,280
Accrued liabilities	15,261,427	6,958,556	5,357,056	6,481,670	12,679,692	1,353,816	875,796
Due to other governments	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	-	162,368	-	12,568	3,447,927	-	65,971
Interest payable	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	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	2,845,282	2,734,246	2,624,820	2,520,996	2,999,458	-	-
BC Note obligation	203,954	194,242	184,992	176,183	167,794	159,803	152,193
Regional system lease	5,686,745	5,454,878	5,232,465	5,019,121	4,814,476	4,618,174	4,429,876
Other liabilities	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>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	2,359,238,286	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	92,515,774	95,361,056	98,095,302	100,720,123	103,241,118	-	-
BC Note obligation	16,338,339	16,542,293	16,736,534	16,921,526	17,097,709	17,265,503	17,425,306
Regional system lease	400,095,662	405,782,406	411,237,284	416,469,750	421,488,871	426,303,346	430,921,520
Other liabilities	4,132,979	4,138,780	4,840,615	4,979,604	4,933,977	5,170,201	9,784,562
Net pension liability	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>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>3,075,114,307</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	48,216,421	52,250,187	56,283,953	60,317,719	59,252,431	62,822,646	-
Deferred amounts for swap terminations	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>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) [1]							
Net investment in capital assets	(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	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	5,272,708	4,614,294	3,754,368	3,369,875	2,462,214	2,218,373	1,451,598
Unrestricted	(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>\$ (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>

[1] The classification for net position for 2016 - 2018 have been revised to match the methodology used from 2019 and thereafter.

* 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 WATER FUND

CHANGES IN NET POSITION - WATER FUND

	2022	2021	2020	2019	2018	2017	2016*
Operating Revenues							
Wholesale customer charges	\$ 323,026,213	\$ 322,423,768	\$ 312,701,777	\$ 311,399,136	\$ 323,117,344	\$ 331,115,131	\$ 160,777,169
Local system charges	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	234,462	265,822	256,300	21,340	64,200	37,388	54,863
Total Operating Revenues	344,957,975	344,615,090	334,253,577	331,601,876	338,312,144	351,749,944	167,665,532
Operating Expenses							
Personnel	44,892,622	43,889,495	43,946,225	42,085,546	41,845,295	38,261,393	8,301,022
Contractual services	50,683,897	40,410,811	46,097,405	43,083,078	35,794,549	34,257,419	3,304,113
Utilities	28,725,292	28,828,226	27,719,754	26,247,858	26,871,081	28,469,603	12,368,557
Chemicals	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	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	(1,618,459)	(2,123,060)	(2,164,003)	(2,054,913)	(713,779)	(977,762)	-
Intergovernmental reimbursements	(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	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	2,080,554	-	-
Total Operating Expenses	264,578,659	250,476,297	263,282,730	263,959,730	254,602,752	245,868,861	120,841,204
Operating Income	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	(2,361,396)	768,918	13,744,774	14,754,401	6,129,530	1,832,918	392,031
Interest on shortfall and obligations receivable	25,107,207	25,474,904	22,945,866	22,921,380	23,351,220	25,269,750	12,231,250
Interest expense	(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 cost of issuance	15,610,434	15,988,278	14,258,569	10,771,937	13,837,585	2,403,018	2,418,891
Legacy pension expense	(4,988,132)	(8,075,457)	(7,220,716)	6,014,441	(8,933,691)	(2,516,776)	-
WRAP (Water Residential Assistance Program)	(1,049,908)	(593,206)	(1,393,179)	(855,455)	(1,506,554)	(884,327)	-
Other	388,656	(300,841)	703,544	(991,096)	(1,205,489)	878,305	-
Total Nonoperating Expenses	(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	(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	(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	(97,265,534)	(96,409,556)	(76,881,640)	(60,435,361)	(36,474,150)	(4,091,595)	-
NET POSITION (DEFICIT), END OF YEAR	\$ (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 WATER FUND

CHARGE ADJUSTMENTS

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016 [5]</u>
Budgeted revenue requirement [1]	\$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	3.5%	0.7%	0.6%	2.5%	1.0%	-0.9%	4.0%	4.0%
Average annual charge adjustment [2]								
Total regional system	3.7%	1.5%	3.2%	0.6%	1.8%	1.8%	4.5%	n/a [6]
Suburban wholesale	3.5%	1.9%	3.1%	0.3%	0.2%	2.0%	3.4%	11.3%
Local system charge [3]	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	88	85

[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. 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.

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

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

GREAT LAKES WATER AUTHORITY WATER FUND

WATER FUND OPERATING REVENUES/ LARGEST WATER CUSTOMERS

	2022	2021	2020	2019	2018	2017	2016*
Operating Revenues							
Suburban wholesale charges [1]	\$ 323,026,213	\$ 322,423,768	\$ 312,701,777	\$ 311,399,136	\$ 323,117,344	\$ 331,115,131	\$ 160,777,169
Local system charges	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	234,462	265,822	256,300	21,340	64,200	37,388	54,863
Total Operating Revenues	\$ 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	93.64%	93.56%	93.55%	93.91%	95.51%	94.13%	95.89%
Local system charges % of total operating revenue	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	\$ 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	22,798,372	22,667,931	22,293,795	23,464,096	23,365,866	22,913,261	11,105,152
Sterling Heights	16,235,356	16,375,729	15,242,912	14,644,368	15,571,146	15,480,008	7,155,303
Shelby Township	14,885,135	15,690,553	14,482,451	13,719,053	13,554,398	13,462,808	6,114,243
Troy	13,811,983	14,324,990	13,607,770	13,700,093	13,842,135	13,939,815	6,058,667
Macomb Township	13,065,395	13,388,385	12,870,377	11,063,225	11,167,739	10,945,117	-
Livonia	11,860,410	11,806,151	11,553,730	14,001,058	13,669,376	13,483,657	6,223,290
West Bloomfield Township	11,229,363	11,010,166	-	10,733,617	-	-	-
Ypsilanti Community Utilities Authority	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
Canton Township	-	10,919,607	10,491,407	-	13,334,615	13,872,584	6,032,404
Genesee County Drain Commission [3]	-	-	-	-	-	18,493,530	8,593,304
Novi	-	-	-	-	-	-	5,595,031
Total Revenue Ten Largest Suburban Wholesale Member Partners	\$ 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	43.46%	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 WATER FUND

SCHEDULE OF WATER CHARGES*

Community Name	Fixed Monthly Charge	Commodity \$/Mcf	Community Name	Fixed Monthly Charge	Commodity \$/Mcf
Allen Park	\$ 126,400	\$ 7.82	Mayfield Township	\$ 2,500	\$ 24.68
Almont, Village of	12,600	10.54	Melvindale	34,100	6.42
Ash Township	43,900	8.27	New Haven, Village of	22,200	6.94
Belleville	16,600	9.74	North Oakland County Water Authority	1,168,100	10.41
Berlin Township	38,400	11.54	Northville, City	40,600	10.48
Brownstown Township	190,600	11.09	Northville Township	299,300	17.00
Bruce Township	16,700	61.19	Novi	476,200	13.03
Canton Township	539,900	12.36	Oak Park	73,700	6.08
Center Line	24,600	6.28	Oakland County Drain Commission	4,300	3.49
Chesterfield Township	223,800	10.41	Plymouth, City	57,000	10.34
Clinton Township	398,900	7.92	Plymouth Township	234,100	11.57
Commerce Township	187,700	14.72	Redford Township	167,100	8.32
Dearborn	538,500	7.22	River Rouge	35,900	7.58
Dearborn Heights	193,300	7.84	Riverview	46,900	7.73
Eastpointe	82,000	6.31	Rockwood	14,700	11.79
Ecorse	79,400	4.48	Romeo	13,500	18.13
Farmington	53,000	9.52	Romulus	224,200	8.21
Farmington Hills	465,600	10.57	Roseville	142,200	5.99
Ferndale	54,100	6.19	Royal Oak Township	10,400	7.65
Flat Rock	69,900	9.79	Shelby Township	751,600	14.88
Flint (1)	564,400	9.43	Southeastern Oakland County Water Authority	1,215,400	7.75
Fraser	64,300	8.72	South Rockwood	6,100	10.17
Garden City	88,100	8.71	Southgate	116,300	8.12
Gibraltar	17,500	8.61	St. Clair County-Burtchville Township	17,700	18.19
Grosse Ile Township	57,800	12.10	St. Clair County-Greenwood Energy Center	49,400	19.18
Grosse Pointe Park	71,000	10.21	St. Clair Shores	161,800	6.80
Grosse Pointe Shores	34,800	13.75	Sterling Heights	804,500	11.14
Grosse Pointe Woods	67,700	7.50	Sumpter Township	35,600	9.67
Hamtramck	42,200	5.42	Sylvan Lake	12,300	15.48
Harper Woods	42,500	7.12	Taylor	244,700	7.46
Harrison Township	85,100	7.21	Trenton	89,100	8.19
Hazel Park	38,800	6.15	Troy	722,200	12.20
Highland Park	61,200	4.63	Utica	30,000	9.72
Huron Township	77,600	10.28	Van Buren Township	183,700	11.10
Imlay City	77,200	13.50	Walled Lake	42,200	10.98
Imlay Township	800	42.50	Warren	545,200	6.94
Inkster	65,100	5.56	Washington Township	121,700	12.37
Keego Harbor	15,700	12.74	Wayne	168,700	12.96
Lapeer	80,600	12.39	West Bloomfield Township	551,000	16.52
Lenox Township	15,600	8.42	Westland	327,500	7.99
Lincoln Park	121,000	6.04	Wixom	130,500	13.95
Livonia	607,100	10.11	Woodhaven	88,100	12.22
Macomb Township	669,300	16.23	Ypsilanti Community Utilities Authority	547,900	9.03
Madison Heights	98,000	7.35			

Annual Detroit Wholesale Revenue Requirement \$21,697,300

* Water charges went into effect July 1, 2021 per GLWA Board of Director's action taken at their regular meeting held March 24, 2021.

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

GREAT LAKES WATER AUTHORITY WATER FUND

RATIOS OF OUTSTANDING DEBT BY TYPE

	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Revenue bonds [1]	\$ 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	<u>109,429,462</u>	<u>71,259,601</u>	<u>39,318,264</u>	<u>29,860,802</u>	<u>25,435,902</u>	<u>17,252,235</u>	<u>17,383,761</u>
Total Water Fund	<u>\$ 2,399,329,541</u>	<u>\$ 2,439,892,074</u>	<u>\$ 2,492,789,352</u>	<u>\$ 2,496,421,894</u>	<u>\$ 2,566,099,098</u>	<u>\$ 2,629,859,336</u>	<u>\$ 2,524,474,799</u>
Total taxable value [2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total population served [3]:	3,800,000	3,800,000	3,800,000	3,800,000	3,800,000	3,800,000	3,800,000
Total debt per capita:	\$ 631	\$ 642	\$ 656	\$ 657	\$ 675	\$ 692	\$ 664
Per capita income [4]	\$ 59,590	\$ 58,971	\$ 58,356	\$ 54,172	\$ 52,572	\$ 50,863	\$ 49,179
Total debt as a percentage of income:	1.06%	1.09%	1.12%	1.21%	1.28%	1.36%	1.35%

[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.

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 WATER FUND

DEBT BY LIEN
As of June 30, 2022

	Original Principal Amount [1]	Outstanding as of June 30, 2022
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	71,225,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2014D-2	188,455,000	188,455,000
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	87,995,000
Water Supply System Revenue Refunding Senior Lien Bonds, Series 2016C	443,930,000	443,930,000
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	377,515,000
	<u>2,453,665,000</u>	<u>1,490,500,000</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	49,490,000
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	163,825,000
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	122,460,000
Water Supply System Revenue Second Lien Bonds, Series 2020B	43,135,000	43,135,000
	<u>980,210,000</u>	<u>638,390,000</u>
SRF Junior Lien Bonds		
Water Supply System Revenue Bonds, Series 2005 SRF-1	13,805,164	3,875,164
Water Supply System Revenue Bonds, Series 2005 SRF-2	8,891,730	2,446,730
Water Supply System Revenue Bonds, Series 2006 SRF-1	5,180,926	1,445,926
Water Supply System Revenue Bonds, Series 2008 SRF-1	2,590,941	750,941
Water Supply System Revenue Bonds, Series 2016 SRF-1	8,273,168	7,463,168
Water Supply System Revenue Bonds, Series 2016 SRF-2	3,393,543	3,053,543
Water Supply System Revenue Bonds, Series 2017 SRF-1	5,807,931	5,347,931
Water Supply System Revenue Bonds, Series 2019 SRF-1	8,330,000	7,985,000
Water Supply System Revenue Bonds, Series 2019 SRF-2	29,950,000	27,115,556
Water Supply System Revenue Bonds, Series 2019 SRF-3	11,788,056	7,742,932
Water Supply System Revenue Bonds, Series 2020 SRF-1	20,538,700	15,869,467
Water Supply System Revenue Bonds, Series 2020 SRF-2	9,000,000	3,623,516
Water Supply System Revenue Bonds, Series 2020 SRF-3	8,960,000	6,753,599
Water Supply System Revenue Bonds, Series 2020 SRF-4	12,153,050	5,325,829
Water Supply System Revenue Bonds, Series 2021 SRF-1	11,940,000	1,774,468
Water Supply System Revenue Bonds, Series 2021 SRF-2	104,725,000	7,154,223
Water Supply System Revenue Bonds, Series 2021 SRF-3	11,528,950	1,701,469
	<u>276,857,159</u>	<u>109,429,462</u>
TOTAL WATER SUPPLY SYSTEM REVENUE BONDS	<u>\$ 3,710,732,159</u>	<u>\$ 2,238,319,462</u>

GREAT LAKES WATER AUTHORITY WATER FUND

SCHEDULE OF DEBT SERVICE REQUIREMENTS

As of June 30, 2022

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
2023 [2]	\$6,740	\$54,467	\$61,207	\$13,425	\$28,728	\$42,153	\$5,097	\$2,217	\$7,314	\$110,673
2024	60,290	66,341	126,631	16,640	30,144	46,784	5,565	2,132	7,697	181,112
2025	64,210	63,477	127,687	18,380	29,269	47,649	11,009	1,965	12,974	188,310
2026	67,040	60,553	127,593	19,300	28,327	47,627	9,594	1,761	11,355	186,574
2027	70,060	57,313	127,373	20,265	27,337	47,602	6,928	1,594	8,522	183,498
2028	73,525	53,954	127,479	21,280	26,299	47,579	4,892	1,473	6,365	181,423
2029	76,770	50,472	127,242	22,345	25,208	47,553	4,496	1,378	5,873	180,669
2030	80,490	46,668	127,158	23,460	24,063	47,523	4,445	1,286	5,731	180,411
2031	84,380	42,659	127,039	27,440	22,791	50,231	4,545	1,194	5,739	183,008
2032	88,510	38,439	126,949	28,810	21,384	50,194	4,640	1,100	5,740	182,884
2033	92,825	34,004	126,829	30,255	20,051	50,306	4,319	1,008	5,327	182,462
2034	86,695	29,565	116,260	42,150	18,585	60,735	4,380	919	5,299	182,294
2035	94,960	25,043	120,003	39,930	16,735	56,665	4,475	829	5,304	181,972
2036	107,100	20,010	127,110	2,650	15,671	18,321	4,555	736	5,291	150,722
2037	15,790	17,046	32,836	120,120	12,601	132,721	4,640	642	5,282	170,838
2038	55,135	15,607	70,742	1,600	9,557	11,157	4,226	546	4,772	86,671
2039	61,740	13,368	75,108	1,675	9,475	11,150	3,910	458	4,368	90,626
2040	63,910	11,160	75,070	1,760	9,389	11,149	3,995	376	4,371	90,591
2041	66,160	8,874	75,034	1,845	9,299	11,144	3,036	293	3,328	89,507
2042	67,190	6,530	73,720	1,940	9,205	11,145	1,855	234	2,089	86,953
2043	17,905	4,901	22,806	31,660	8,365	40,025	1,890	193	2,083	64,914
2044	18,805	3,984	22,789	33,245	6,742	39,987	1,593	155	1,748	64,523
2045	19,740	3,020	22,760	34,910	5,038	39,948	1,515	120	1,635	64,343
2046	20,725	2,008	22,733	36,650	3,249	39,899	1,555	86	1,641	64,274
2047	21,765	946	22,711	38,485	1,371	39,856	1,241	52	1,292	63,859
2048	2,550	338	2,888	2,590	344	2,934	787	23	810	6,632
2049	2,680	208	2,888	2,725	211	2,936	248	3	251	6,074
2050	2,810	70	2,880	2,855	71	2,926	0	0	0	5,807
Total	\$1,490,500	\$731,026	\$2,221,526	\$638,390	\$419,506	\$1,057,896	\$109,429	\$22,773	\$132,202	\$3,411,624

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

[2] For bonds issued through the Michigan Finance Authority (MFA) in 2014 and 2015, the Authority is required to make payment on these obligations to the MFA depository account five business days prior to the actual due date of the bond principal and interest payments. Therefore, the payments for the principal and interest due on July 1, 2021 are not included in the debt service requirement amounts above as they were paid on June 24, 2022

Schedule may not foot due to rounding

GREAT LAKES WATER AUTHORITY WATER FUND

DEBT CREDIT RATING HISTORY

As of June 30, 2022

Debt Type	2022	2021	2020	2019	2018	2017	2016
Standards & Poor's							
Senior Lien	AA-	AA-	AA-	AA-	A-	A-	A-
Second Lien	A+	A+	A+	A+	BBB+	BBB+	BBB+
Junior Lien	A+	A+	A+	A+	N/A	N/A	N/A
Moody's							
Senior Lien	A1	A1	A1	A2	A3	A3	Baa1
Second Lien	A2	A2	A2	A3	Baa1	Baa1	Baa2
Fitch							
Senior Lien	A+	A+	A+	A	A	A	BBB
Second Lien	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.

GREAT LAKES WATER AUTHORITY WATER FUND

CALCULATION OF DEBT SERVICE COVERAGE - OVERVIEW

As of June 30, 2022

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. This year the Authority has made a refinement to both of these methodologies which are described below:

The GAAP methodology line item for 'GLWA operating expenses' now uses the operating expenses before depreciation and amortization from the basic financial statements. An additional line item has been added for GASB 87 and GASB 96 items that are expenses for budget purposes but require capitalization under the GASB standards. In previous years only the activity in the operations fund from the combining statements was used, which excluded operating expenses paid for in the Improvement and Extension Fund. Prior years have been restated to match the current year methodology.

The Rate Covenant methodology line item for the 'GLWA Regional system operations' is now based on transfers out of the trust to the GLWA operations funds. Previously a calculation was done to compute the cash disbursements from the GLWA operations funds as any cash remaining in the operations fund could be returned to the trust for debt service payments. As the Authority has matured and implemented monthly cash meetings to review cash needs for operations, the new methodology is a more conservative approach which will be used going forward. Prior years have not been restated as the methodology used during those time periods provided a more realistic picture of operational cash needs during the Authority's beginning years.

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 WATER FUND

DEBT SERVICE COVERAGE - GAAP BASIS - WATER SYSTEM

As of June 30, 2022

	2022	2021	2020	2019	2018	2017	2016 [1]
GLWA Revenues							
Wholesale customer charges	\$ 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	(6,496,428)	(6,652,253)	(6,652,348)	(6,979,503)	(3,176,073)	-	-
DWSD Local system charges	21,697,300	21,925,500	21,295,500	20,181,400	15,130,600	15,490,300	6,833,500
Other Revenue	775,537	267,562	1,912,636	21,340	64,200	37,388	54,863
Earnings on investments [2]	1,945,613	4,195,305	9,115,115	11,818,203	4,489,397	1,348,898	520,891
Total GLWA Revenues	<u>340,948,235</u>	<u>342,159,882</u>	<u>338,372,680</u>	<u>336,440,576</u>	<u>339,625,468</u>	<u>353,098,842</u>	<u>168,186,423</u>
DWSD Local System Revenues [7]							
Local system revenues [3]	83,591,720	67,464,986	73,817,339	69,777,041	83,983,786	69,680,402	183,279,645
Other Revenue	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	<u>85,941,165</u>	<u>69,423,137</u>	<u>81,106,807</u>	<u>70,790,317</u>	<u>85,619,216</u>	<u>74,945,631</u>	<u>185,353,740</u>
Total Revenue	<u>426,889,400</u>	<u>411,583,019</u>	<u>419,479,487</u>	<u>407,230,893</u>	<u>425,244,684</u>	<u>428,044,473</u>	<u>353,540,163</u>
Operating Expenses							
GLWA operating expenses	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]	413,924	-	-	-	-	-	-
O&M transfers:							
DWSD Local System operations	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	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	2,136,000
Total Operating Expenses	<u>178,538,892</u>	<u>169,791,992</u>	<u>177,515,238</u>	<u>165,626,246</u>	<u>153,910,087</u>	<u>145,647,349</u>	<u>77,150,459</u>
Pledged revenue	<u>\$ 248,350,508</u>	<u>\$ 241,791,027</u>	<u>\$ 241,964,249</u>	<u>\$ 241,604,647</u>	<u>\$ 271,334,597</u>	<u>\$ 282,397,124</u>	<u>\$ 276,389,704</u>
Principal and interest funding requirement [6]:							
Senior lien bonds	\$ 124,309,692	\$ 123,798,304	\$ 122,318,928	\$ 119,230,820	\$ 127,687,420	\$ 134,234,660	\$ 128,177,999
Second lien bonds	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	171,150,042	175,529,462	170,168,278	165,445,205	170,540,233	173,224,683	169,356,842
Junior lien bonds	5,439,273	3,684,917	2,700,795	2,521,249	2,009,658	1,785,328	1,781,683
Total all bonds	<u>\$ 176,589,315</u>	<u>\$ 179,214,379</u>	<u>\$ 172,869,073</u>	<u>\$ 167,966,454</u>	<u>\$ 172,549,891</u>	<u>\$ 175,010,011</u>	<u>\$ 171,138,525</u>
GAAP basis debt service coverage							
Senior lien bonds	2.00	1.95	1.98	2.03	2.12	2.10	2.16
Senior and second lien bonds	1.45	1.38	1.42	1.46	1.59	1.63	1.63
All bonds, including SRF junior lien	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, 2022.

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

GREAT LAKES WATER AUTHORITY WATER FUND

DEBT SERVICE COVERAGE - RATE COVENANT BASIS - WATER SYSTEM

As of June 30, 2022

	2022	2021	2020 [4]	2019	2018	2017 [5]	2016 [1]
GLWA Receipts							
Wholesale System Receipts	\$ 313,964,381	\$ 310,032,178	\$ 303,568,071	\$ 308,690,722	\$ 319,728,881	\$ 336,362,250	
DWSD Local system charges	21,697,300	21,925,500	21,295,500	20,181,400	15,130,600	15,490,300	
Investment Earnings	2,456,013	4,684,353	7,742,625	7,722,112	3,592,524	579,546	
Total GLWA Receipts	<u>338,117,694</u>	<u>336,642,031</u>	<u>332,606,196</u>	<u>336,594,234</u>	<u>338,452,005</u>	<u>352,432,096</u>	
DWSD Local System Receipts	<u>80,267,663</u>	<u>80,141,924</u>	<u>75,590,223</u>	<u>79,686,819</u>	<u>85,962,882</u>	<u>80,960,806</u>	
Total Receipts	<u>418,385,357</u>	<u>416,783,955</u>	<u>408,196,419</u>	<u>416,281,053</u>	<u>424,414,887</u>	<u>433,392,902</u>	
Operation and Maintenance Transfers							
GLWA Regional system operations [2]	143,933,800	124,167,627	126,188,192	116,356,994	114,426,522	105,431,843	
DWSD Local System operations	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	
Legacy Pension DWSD Local System [3]	<u>4,272,000</u>	<u>4,272,000</u>	<u>4,272,000</u>	<u>4,272,000</u>	<u>4,272,000</u>	<u>4,272,000</u>	
Total Operations and Maintenance Transfers	<u>184,242,800</u>	<u>170,321,527</u>	<u>171,170,592</u>	<u>162,161,294</u>	<u>159,806,226</u>	<u>149,348,243</u>	
Pledged revenue	<u>\$ 234,142,557</u>	<u>\$ 246,462,428</u>	<u>\$ 237,025,827</u>	<u>\$ 254,119,759</u>	<u>\$ 264,608,661</u>	<u>\$ 284,044,659</u>	
Principal and interest funding requirement [4]:							
Senior lien bonds	\$ 124,309,692	\$ 123,798,304	\$ 122,318,928	\$ 119,230,820	\$ 127,687,420	\$ 134,234,660	
Second lien bonds	<u>46,840,350</u>	<u>51,731,158</u>	<u>47,849,350</u>	<u>46,214,385</u>	<u>42,852,813</u>	<u>38,990,023</u>	
Total senior and second lien bonds	171,150,042	175,529,462	170,168,278	165,445,205	170,540,233	173,224,683	
Junior lien bonds	<u>5,439,273</u>	<u>3,684,917</u>	<u>2,700,795</u>	<u>2,521,249</u>	<u>2,009,658</u>	<u>1,785,328</u>	
Total all bonds	<u>\$ 176,589,315</u>	<u>\$ 179,214,379</u>	<u>\$ 172,869,073</u>	<u>\$ 167,966,454</u>	<u>\$ 172,549,891</u>	<u>\$ 175,010,011</u>	
Rate covenant basis debt service coverage							
Senior lien bonds	1.88	1.99	1.94	2.13	2.07	2.12	
Senior and second lien bonds	1.37	1.40	1.39	1.54	1.55	1.64	
All bonds, including SRF junior lien	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.

[5] In preparation of the 2022 Water Official Statements this historical information was revised and differs from last year's Annual Comprehensive Financial Report.

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

GREAT LAKES WATER AUTHORITY WATER FUND

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
2022	3,800,000	4.6%	\$ 59,590 (4)	\$ 176,589,315	\$ 46.47	0.08%
2021	3,800,000	6.2%	58,971 (4)	179,214,379	47.16	0.08%
2020	3,800,000	11.5%	58,356	172,869,073	45.49	0.08%
2019	3,800,000	4.3%	54,172	167,966,454	44.20	0.08%
2018	3,800,000	4.3%	52,572	172,549,891	45.41	0.09%
2017	3,800,000	4.6%	50,863	175,010,011	46.06	0.09%
2016 *	3,800,000	5.3%	49,179	171,138,525	45.04	0.09%
2015 *	3,800,000	5.9%	47,799	178,923,900	47.09	0.10%
2014 *	3,800,000	8.1%	44,966	182,464,900	48.02	0.11%
2013 *	3,800,000	9.7%	42,725	172,458,800	45.38	0.11%

(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 2022 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 2013-2015 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 WATER FUND

LARGEST EMPLOYERS Current Year and 9 years prior

Employer	Type of Business	Fiscal Year 2022			Fiscal Year 2013		
		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	2.40%	43,977	1	2.37%
Stellantis NV (Formerly FCA US LLC)	Automobile Manufacturer	37,761	2	1.90%	29,006	3	1.56%
University of Michigan	Public University and Health System	35,185	3	1.77%	29,551	2	1.59%
General Motors Co.	Automobile Manufacturer	33,935	4	1.70%	26,843	4	1.45%
Beaumont Health	Health Care System	24,668	5	1.24%	13,134	9	0.71%
U.S. Government	Federal Government	19,953	6	1.00%	18,600	5	1.00%
Rocket Companies Inc.	Holding company consisting of technology, personal finance and consumer service brands	18,000	7	0.90%	n/a	n/a	n/a
Henry Ford Health System	Health Care System	17,875	8	0.90%	17,831	6	0.96%
Trinity Health Michigan	Health Care System	12,991	9	0.65%	14,062	7	0.76%
Ascension Michigan (Formerly St. John's Providence)	Health Care System	12,452	10	0.63%	12,002	10	0.65%
Detroit Medical Center	Health Care System	n/a	n/a	n/a	13,458	8	0.72%
Total		<u>260,570</u>		<u>13.08%</u>	<u>218,464</u>		<u>11.76%</u>

- (a) Employment data from July 2021 Crain's Detroit Business (most recent available), Largest Southeast Michigan Employers - Ranked by full-time employees
- (b) Percentage base on U.S. Bureau of Labor Statistics from July 2021 of 1,991,991 for the Detroit-Warren-Dearborn, MI Metropolitan Statistical Area
- (c) Employment data from July 2013 Crain's Detroit Business, Largest Metro Detroit Employers - Ranked by full-time employees
- (d) Percentage base on U.S. Bureau of Labor Statistics from July 2013 of 1,857,269 for the Detroit-Warren-Dearborn, MI Metropolitan Statistical Area

GREAT LAKES WATER AUTHORITY WATER FUND

PRODUCED AND BILLED WATER VOLUMES (Mcf)

Fiscal Year	Water Produced [1]	Reported Water Sales			Non-Revenue Water Estimate	Non-Revenue Water Estimate % of Production
		Wholesale Billed [2]	Local System Billed [3]	Total Water Billed		
2022	20,498,700	13,205,300	4,297,300	17,502,600	2,996,100	14.6%
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. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

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GREAT LAKES WATER AUTHORITY WATER FUND

ADDITIONAL SUMMARY STATISTICS *

	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Capital Asset Statistics - Water							
Water Treatment Plants	5	5	5	5	5	5	5
Intake Facilities	3	3	3	3	3	3	3
Booster Pumping Stations	19	19	19	19	19	19	19
Water Storage Reservoirs	32	32	32	32	32	32	32
Miles of Transmission Lines	816	816	816	816	803	803	803
GLWA Employees							
Water Operations	203	211	211	213	205	180	155
Sewage Disposal Operations	298	320	344	369	358	342	320
Centralized Services	295	298	302	295	276	249	217
Administrative Services	152	156	152	147	129	110	90
Total Employees	<u>948</u>	<u>985</u>	<u>1,009</u>	<u>1,024</u>	<u>968</u>	<u>881</u>	<u>782</u>

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

