



Sewage Disposal 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 SEWAGE DISPOSAL FUND

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Independent Auditors' Report

To the Board of Directors of
Great Lakes Water Authority

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of the Sewage Disposal Fund of the Great Lakes Water Authority (the Sewage Disposal Fund), as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the Sewage Disposal 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 Sewage Disposal 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 Sewage Disposal 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.

Emphasis of Matter

As discussed in Note 1, the financial statements present only the Sewage Disposal 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.

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 Sewage Disposal 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 opinion. 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 Sewage Disposal 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 Sewage Disposal 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.

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, 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 Sewage Disposal 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 Sewage Disposal 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 Sewage Disposal 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 Sewage Disposal 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.



Madison, Wisconsin
December 14, 2022

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FINANCIAL STATEMENTS

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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	\$ 200,464,397	\$ 191,584,705
Restricted cash and cash equivalents	38,574,227	85,509,014
Restricted cash for the benefit of DWSD	9,098,348	2,919,797
Investments	93,709,233	132,388,013
Restricted investments	73,042,550	28,758,582
Receivables, net	46,858,599	45,041,213
Due from other governments	2,208,272	1,351,111
Due from water fund	-	162,368
Contractual obligation receivable	15,403,674	14,637,184
Shortfall receivable - DWSD	-	8,296,578
Prepaid items and other assets	4,920,898	4,143,303
Inventories	8,366,771	7,000,631
Total Current Assets	492,646,969	521,792,499
Noncurrent Assets		
Restricted cash and cash equivalents	2,491,300	2,876,374
Restricted investments	31,184,328	29,882,148
Contractual obligation receivable	369,794,921	384,718,443
Prepaid lease	13,750,000	13,750,000
Assets not subject to depreciation or amortization	320,526,307	315,474,451
Capital assets being depreciated, net	2,138,777,595	2,221,472,660
Intangible assets, net	3,993,977	4,433,681
Prepaid insurance on debt	10,124,011	11,053,199
Total Noncurrent Assets	2,890,642,439	2,983,660,956
Total Assets	3,383,289,408	3,505,453,455
Deferred Outflows of Resources		
Deferred charge on refunding	110,341,248	118,709,227
Deferred pension amounts	19,347,900	39,574,610
Total Deferred Outflows of Resources	129,689,148	158,283,837

	2022	2021
Liabilities		
Current Liabilities		
Accounts and contracts payable	\$ 37,488,263	\$ 32,182,085
Accrued salaries, wages and benefits	1,013,356	1,136,565
Accrued liabilities	9,743,206	4,615,255
Due to other governments	3,750,000	3,750,000
Due to water fund	2,328,086	2,786,344
Interest payable	34,566,553	35,189,612
Current portion of		
Revenue bonds and loans	87,312,545	87,409,283
BC Note obligation	458,756	436,911
Regional system leases	6,950,466	6,667,073
Other liabilities	3,435,863	2,743,360
Total Current Liabilities	<u>187,047,094</u>	<u>176,916,488</u>
Noncurrent Liabilities		
Revenue bonds and loans	2,790,722,856	2,912,505,035
BC Note obligation	36,750,113	37,208,869
Regional system leases	489,005,809	495,956,275
Other liabilities	16,989,290	17,376,059
Net pension liability	41,841,847	92,577,019
Total Noncurrent Liabilities	<u>3,375,309,915</u>	<u>3,555,623,257</u>
Total Liabilities	<u>3,562,357,009</u>	<u>3,732,539,745</u>
Deferred Inflows of Resources		
Deferred gain on refunding	40,566,648	44,046,097
Deferred amounts for swap terminations	457	18,041
Deferred pension amounts	20,087,733	-
Total Deferred Inflows of Resources	<u>60,654,838</u>	<u>44,064,138</u>
Net Position (Deficit)		
Net investment in capital assets	(85,551,623)	(110,660,463)
Restricted for debt service	91,754,608	90,855,751
Restricted for payment assistance program	7,045,715	6,428,815
Unrestricted	(123,281,991)	(99,490,694)
TOTAL NET POSITION (DEFICIT)	<u>\$ (110,033,291)</u>	<u>\$ (112,866,591)</u>

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

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GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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	\$ 268,813,369	\$ 267,567,816
Local system charges	188,662,200	187,959,700
Industrial waste charges	8,300,278	8,004,939
Pollutant surcharges	5,181,816	6,719,964
Other revenues	429,491	501,121
Total Operating Revenues	471,387,154	470,753,540
Operating Expenses		
Operating expenses before depreciation and amortization		
Personnel	62,160,768	63,055,636
Contractual services	63,410,109	62,913,214
Utilities	30,930,459	23,921,428
Chemicals	12,593,379	7,953,995
Supplies and other expenses	19,911,985	21,938,081
Capital program allocation	(1,013,677)	(1,068,749)
Intergovernmental reimbursements	(1,074,346)	(612,181)
Total operating expenses before depreciation and amortization	186,918,677	178,101,424
Depreciation	158,013,629	150,772,065
Amortization of intangible assets	439,704	109,926
Total Operating Expenses	345,372,010	328,983,415
Operating Income	126,015,144	141,770,125
Nonoperating Revenues (Expenses)		
Earnings (loss) on investments	(3,022,882)	490,706
Interest on shortfall and obligations receivable	17,157,558	18,247,607
Interest expense	(131,110,125)	(135,227,647)
Amortization of debt related items and cost of issuance	(2,292,419)	(3,022,639)
Legacy pension expense	(8,927,171)	(14,452,504)
WRAP (Water Residential Assistance Program)	(1,742,929)	(924,247)
Other	(234,915)	(540,045)
Total Nonoperating Expenses	(130,172,883)	(135,428,769)
Income (loss) before capital contributions	(4,157,739)	6,341,356
Capital Contributions	6,991,039	5,960,000
Change in net position	2,833,300	12,301,356
NET POSITION (DEFICIT), Beginning of Year	(112,866,591)	(125,167,947)
NET POSITION (DEFICIT), END OF YEAR	\$ (110,033,291)	\$ (112,866,591)

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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	\$ 470,114,343	\$ 469,974,866
Cash received from intergovernmental reimbursements	588,645	251,301
Cash payments for intergovernmental services provided	(1,074,346)	(612,181)
Cash payments to suppliers for goods and services	(121,676,647)	(110,575,113)
Cash payments for employee services	(62,331,347)	(60,883,214)
Cash payments to other governments for obligation payable	(1,969,294)	(1,969,295)
Cash payments for WRAP	(1,742,930)	(924,247)
Cash payments for GLWA share pension agreement	(20,475,400)	(20,475,400)
Cash received from insurance claims	592,797	1,695,458
Cash received nonoperating income	428	20,784
Cash received for DWSD nonoperating pension	3,066,700	3,066,800
Cash paid for DWSD nonoperating pension	(3,066,805)	(3,066,807)
Cash received for DWSD WRAP	1,510,400	1,349,200
Cash payments for DWSD WRAP	(1,510,400)	(2,266,491)
Cash increase from DWSD budgetary surplus (1)	6,024,896	13,109,997
Principal payments received on obligation receivable	14,244,900	13,664,500
Interest received on obligation receivable	17,500,600	17,994,154
Advanced payments received on obligation receivable	55,310	-
Payments received from DWSD for previous year budget shortfall	8,296,578	18,206,431
Interest payments received on previous year budget shortfall	144,918	635,284
Cash received from DWSD for cost of issuance fees	49,500	-
Cash payments for issuance costs on DWSD obligation receivable	(49,500)	-
Payments of state revolving fund loan proceeds to DWSD	(1,288,152)	-
Net Cash Provided by Operating Activities	307,005,194	339,196,027
Cash Flows From Noncapital Financing Activities		
Proceeds from state revolving fund loans for DWSD	1,288,152	-
Cash received from grants	149,018	-
Principal payments	(14,244,900)	(13,619,500)
Interest payments	(17,430,450)	(18,009,700)
Net Cash Used in Noncapital Financing Activities	(30,238,180)	(31,629,200)
Cash Flows From Capital and Related Financing Activities		
Proceeds from insurance claims	345,645	-
Proceeds from sale of assets	239,128	52,779
Proceeds from state revolving fund loans	9,215,214	17,261,319
Payment of bond issuance costs	(37,500)	(555,801)
Principal payments on bonds	(113,955,100)	(104,965,500)
Principal payments on regional system leases	(6,667,073)	(6,395,235)
Principal payments on right to use lease	(189,119)	(96,310)
Interest payments	(112,599,419)	(107,543,682)
Purchase of capital assets	(75,575,344)	(88,804,223)
Net Cash Used in Capital and Related Financing Activities	(299,223,568)	(291,046,653)

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	<u>2022</u>	<u>2021</u>
Cash Flows From Investing Activities		
Investment purchases	\$ (307,745,971)	\$ (255,538,068)
Investment sales and maturities	296,101,125	346,505,000
Interest received	<u>1,839,782</u>	<u>2,758,596</u>
Net Cash Used in Investing Activities	<u>(9,805,064)</u>	<u>93,725,528</u>
Net change in cash and cash equivalents	(32,261,618)	110,245,702
CASH AND CASH EQUIVALENTS, Beginning of Year	<u>282,889,890</u>	<u>172,644,188</u>
CASH AND CASH EQUIVALENTS, END OF YEAR	<u>\$ 250,628,272</u>	<u>\$ 282,889,890</u>
STATEMENT OF NET POSITION CLASSIFICATION OF CASH		
Cash and cash equivalents	\$ 200,464,397	\$ 191,584,705
Restricted cash and cash equivalents	38,574,227	85,509,014
Restricted cash for the benefit of DWSD	9,098,348	2,919,797
Noncurrent restricted cash and cash equivalents	<u>2,491,300</u>	<u>2,876,374</u>
CASH AND CASH EQUIVALENTS, END OF YEAR	<u>\$ 250,628,272</u>	<u>\$ 282,889,890</u>
NONCASH OPERATING ACTIVITIES		
Interest income obligation receivable premium amortization	<u>\$ (392,284)</u>	<u>\$ (376,827)</u>
NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES		
Increase in assets from contributed capital	<u>\$ 6,991,039</u>	<u>\$ -</u>
Increase in lease liability right to use asset	<u>\$ -</u>	<u>\$ 4,543,607</u>
Increase in intangible right to use asset	<u>\$ -</u>	<u>\$ 4,543,607</u>
Increase in unrealized loss on investments	<u>\$ 2,530,920</u>	<u>\$ 5,046,732</u>
Interest expense due to accretion	<u>\$ 170,931</u>	<u>\$ 496,509</u>
Amortization income (expense)	<u>\$ (2,254,919)</u>	<u>\$ (2,466,838)</u>

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

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	2022	2021
Reconciliation of Operating Income to Net		
Cash Provided by Operating Activities:		
Operating income	\$ 126,015,144	\$ 141,770,125
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation	158,013,629	150,772,065
Amortization of intangible assets	439,704	109,926
Miscellaneous nonoperating income (expense)	281,926	20,784
Legacy pension expense and administrative fee	(9,217,846)	(14,772,228)
WRAP (Water Residential Assistance Program)	(1,742,929)	(924,247)
Loan forgiveness pass-through to DWSD	(808,000)	-
Interest income on contractual obligation receivable	17,012,640	17,612,323
Interest income on shortfall receivable	144,918	635,284
Interest expense on obligation payable	(1,532,384)	(1,553,190)
Changes in:		
Receivables	(1,817,386)	(778,674)
Due from other governments	(900,148)	9,834,318
Due from other funds	162,368	(162,368)
Contractual obligation receivable	14,157,032	14,041,326
Shortfall receivable	8,296,578	18,206,431
Prepaid items and other assets (operating)	(902,781)	(704,466)
Inventories	(1,366,140)	(630,044)
Accounts payable (operating)	6,585,172	1,920,781
Accrued salaries, wages and benefits	(123,209)	1,136,565
Accrued liabilities	5,127,951	4,615,255
Due to other governments	-	2,000,000
Due to other funds	(458,258)	652,153
Obligation payable including accrued interest	(436,911)	(416,105)
Other noncurrent liabilities	494,853	705,409
Net pension liability and deferred items	(10,420,729)	(4,895,396)
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>\$ 307,005,194</u>	<u>\$ 339,196,027</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 SEWAGE DISPOSAL FUND

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

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

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

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 SEWAGE DISPOSAL 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 sewage disposal 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 Authority recognizes an estimate of uncollectible accounts for its customer accounts receivable related to its sewage disposal services.

Due from and Due to Other Governments

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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.

Shortfall Receivable – DWSD

A shortfall arises when the local system cash receipts are insufficient to meet the MBO obligations. Pursuant to the 2018 Memorandum of Understanding (MOU) dated June 27, 2018 executed between DWSD and the Authority any DWSD shortfall not cured by the end of the fiscal year following the year in which the shortfall arises shall be repaid in full, in installments, over a period not to exceed three fiscal years, plus a surcharge. Prior year shortfalls were paid off during the current fiscal year. There was no shortfall of local revenue requirements for the year ending June 30, 2022.

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 sewage disposal system assets and are valued at the lower of cost or market, with cost being determined on an average cost method. Inventory is recorded as expense when consumed rather than when purchased. The water fund does not report inventory because the amounts are insignificant and for efficiency are recorded in the sewage disposal fund. Any inventory usage by the water fund is charged through an interfund payable to the sewage disposal fund.

Prepaid Lease

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

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 SEWAGE DISPOSAL 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 a right to use intangible asset for the lease of a warehouse in the sewage disposal fund. See Note 15 for a description of the leased right to use asset.

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 18.

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.
- Insurance proceeds received that have not been spent

Revenue Bonds and Loans

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

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

BC Note Obligation

Under the terms of the lease agreements with the City, the Authority is required to pay a portion of the City's B and C notes allocated to the regional sewage disposal systems. See "BC Note Obligation" in Note 13.

Regional System Leases

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

Other Liabilities

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

- Lease payable – right to use asset
- Compensated absences
- Claims and judgements
- Cash held for the benefit of DWSD budget stabilization

Net Pension Liability

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

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 18.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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 wastewater treatment. The local system charges are the charges to the City of Detroit under the Sewer Services Agreement (WSSA), dated June 12, 2015. Wholesale customer charges are shown net of loss contingency expense of \$3,612,517 for the Sewage Disposal Fund.

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

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

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

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 Shortfall and Obligations Receivable

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

Amortization of Debt Related Items and Cost of Issuance

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

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

Legacy Pension Expense

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

Centralized Services and Administrative Services

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

Capital Contribution

The current wastewater disposal service contract with the Oakland-Macomb Interceptor Drain Drainage District (OMIDD) provides for OMIDD to maintain, repair, and improve Interceptor PCI-5, the Northeast Sewer Pump Station and the North Interceptor East Arm, which are related to the capital assets in the Regional Sewage Disposal System Lease (See Note 14). During the fiscal year ending June 30, 2022, OMIDD transferred to GLWA and GLWA accepted and placed into service capital assets of \$6,991,039 which has been recognized as a capital contribution.

Use of Estimates

The preparation of 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 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 SEWAGE DISPOSAL FUND

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

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (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.

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.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 2 – BUDGETARY INFORMATION (cont.)

BUDGET PROCESS (cont.)

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

SCHEDULE OF CHARGES PROCESS

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

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

NOTE 3 – CASH DEPOSITS AND INVESTMENTS

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

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

Statement of Net Position

Cash and cash equivalents	\$ 200,464,397
Restricted cash and cash equivalents	38,574,227
Restricted cash for the benefit of DWSD	9,098,348
Investments	93,709,233
Restricted investments	73,042,550
Noncurrent restricted cash and cash equivalents	2,491,300
Noncurrent restricted investments	<u>31,184,328</u>
Total	<u>\$ 448,564,383</u>

Cash Deposits and Investments

Bank deposits – checking and savings accounts	\$ 16,225,280
Money market accounts	234,402,992
Investments in securities	<u>197,936,111</u>
Total	<u>\$ 448,564,383</u>

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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 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 \$250,628,272 for the sewage disposal fund. The bank balance of the sewage disposal fund deposits and money market accounts was \$250,628,272 of which \$250,378,272 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 Sewage Disposal Fund's investments as of June 30, 2022:

	Sewage Disposal Fund	Standard & Poors Rating	Weighted Maturity In Years
U.S. treasury notes	\$ 102,953,175	AA+	1.34
U.S. government agencies	26,201,191	AA+	0.90
Commercial paper	<u>68,781,745</u>	A1	0.09
Total	<u>\$ 197,936,111</u>		

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.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 3 – CASH DEPOSITS AND INVESTMENTS (cont.)

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 Sewage Disposal Fund 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	8.72%
Commercial paper	Goldman Sachs	7.62
Commercial paper	Nordea Bank Abp	7.53

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.

	<u>Level 2</u>
Investments by fair value:	
U.S. treasury notes	\$ 102,953,175
U.S. government agencies	26,201,191
Commercial paper	<u>68,781,745</u>
Total Investments	<u>\$ 197,936,111</u>

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

NOTES TO FINANCIAL STATEMENTS
As of and for the Year Ended 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 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 Debt Issuance	Total
	Unrestricted	Restricted	Restricted	
Receiving fund	\$ 90,384,914*	\$ -	\$ -	\$ 90,384,914
Operations and maintenance	41,582,851	-	-	41,582,851
Operations and maintenance – legacy pension	-	348,391	-	348,391
Senior lien debt service	-	45,370,355	-	45,370,355
Senior lien bond reserve	-	-	111,010,076	111,010,076
Second and junior lien debt service	-	57,602,462	-	57,602,462
Second lien bond reserve	-	-	48,722,008	48,722,008
Legacy pension obligation	-	522,310	-	522,310
Water residential assistance program (WRAP)	-	7,045,715	-	7,045,715
Budget stabilization	-	5,256,209	-	5,256,209
Extraordinary repair and replacement	41,908,281	-	-	41,908,281
Improvement and extension – regional	104,295,207	-	-	104,295,207
Subtotal – Reserves Defined by Ordinance	278,171,253	116,145,442	159,732,084	554,048,779
Less: Funded by surety (noncash)	-	-	(138,358,380)	(138,358,380)
Total – Reserves Defined by Ordinance (net of surety coverage)	278,171,253	116,145,442	21,373,704	415,690,399
Cash held for the benefit of DWSD	-	9,098,348	-	9,098,348
Construction retainage	-	7,773,259	-	7,773,259
Construction funds	16,002,377	-	-	16,002,377
Total Cash, Cash Equivalents and Investments Sewage Disposal Fund	\$ 294,173,630	\$ 133,017,049	\$ 21,373,704	\$ 448,564,383

*Balance for two months required transfers

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 4 – RESTRICTED ASSETS (cont.)

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

Restricted assets from schedule above:	
From revenue and other	\$ 133,017,049
From debt issuance	21,373,704
Amounts payable to liabilities and debt	<u>(55,590,430)</u>
 Restricted Net Position	 <u>\$ 98,800,323</u>
 Restricted net position for:	
Debt service	\$ 91,754,608
Payment assistance program	<u>7,045,715</u>
 Total Restricted Net Position	 <u>\$ 98,800,323</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	\$ 200,464,397	\$ 38,574,227	\$ 2,491,300	\$ 241,529,924
Cash held for the benefit of DWSD	-	9,098,348	-	9,098,348
Investments	<u>93,709,233</u>	<u>73,042,550</u>	<u>31,184,328</u>	<u>197,936,111</u>
 Total	 <u>\$ 294,173,630</u>	 <u>\$ 120,715,125</u>	 <u>\$ 33,675,628</u>	 <u>\$ 448,564,383</u>

NOTE 5 – RECEIVABLES, NET

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

Receivables, net:	
Billed	\$ 64,722,773
Unbilled	24,045,449
Other	<u>996,875</u>
Subtotal	89,765,097
 Allowance for doubtful accounts	 <u>(42,906,498)</u>
 Total Receivables, Net	 <u>\$ 46,858,599</u>

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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	\$ 884,783
DWSD-Accrued interest on obligation receivable	2,774
DWSD-Intergovernmental agreement and other	618,967
State of Michigan FEMA	<u>701,748</u>
Total Due From Other Governments	<u>\$ 2,208,272</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 and sewage disposal system from the City of Detroit, all DWSD revenue bonds outstanding as of December 31, 2015, including those purchased by the Michigan Finance Authority under its state revolving loan program, were assumed by GLWA with the consent of bondholders. The total bonds assumed by GLWA on January 1, 2016 totaled \$3,291,282,050 for the Sewage Disposal Fund.

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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:

	<u>Beginning Balance</u>	<u>Increase</u>	<u>Decrease</u>	<u>Debt Forgiveness</u>	<u>Ending Balance</u>	<u>Due Within One Year</u>
Obligation Receivable						
Bifurcated debt	\$ 311,583,900	\$ -	\$ (12,779,900)	\$ -	\$ 298,804,000	\$ 13,333,300
New money bonds	78,810,000	-	(1,465,000)	-	77,345,000	1,530,000
State revolving funds	-	<u>1,288,152</u>	-	<u>(808,000)</u>	<u>480,152</u>	<u>132,000</u>
Total Obligation Receivable	390,393,900	1,288,152	(14,244,900)	(808,000)	376,629,152	14,995,300
Deferred amounts for:						
Unamortized premiums	<u>8,961,727</u>	-	<u>(392,284)</u>	-	<u>8,569,443</u>	<u>408,374</u>
Total	<u>\$ 399,355,627</u>	<u>\$ 1,288,152</u>	<u>(14,637,184)</u>	<u>\$ (808,000)</u>	<u>\$ 385,198,595</u>	<u>\$ 15,403,674</u>

The current obligation receivable payment schedule is as follows:

<u>Year Ended June 30</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2023	\$ 14,995,300	\$ 17,352,206	\$ 32,347,506
2024	15,635,600	16,734,563	32,370,163
2025	16,317,900	16,075,013	32,392,913
2026	16,964,552	15,387,332	32,351,884
2027	17,637,000	14,670,600	32,307,600
2028 - 2032	100,526,900	61,457,150	161,984,050
2033 - 2037	124,685,200	38,176,750	162,861,950
2038 - 2042	42,561,700	12,743,650	55,305,350
2043 - 2047	22,180,000	4,716,250	26,896,250
2048 - 2049	<u>5,125,000</u>	<u>256,250</u>	<u>5,381,250</u>
Total	<u>\$ 376,629,152</u>	<u>\$ 197,569,764</u>	<u>\$ 574,198,916</u>

NOTE 9 – SHORTFALL RECEIVABLE – DWSD

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

In accordance with the 2018 MOU, budget shortfalls not cured by the end of the fiscal year following the year in which they arise shall be repaid in full, in installments, over a period not to exceed the next three fiscal years, plus a surcharge calculated as provided below. The surcharge factor on the portion of the budget shortfall for the Sewage Disposal Fund, which remains unpaid, shall be based on the three-year U.S. Treasury note rate plus 150 basis points. The 2018 budget shortfall was paid off during the year. The surcharge factor for the 2018 budget shortfall was 3.209%.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 9 – SHORTFALL RECEIVABLE – DWSD (cont.)

The following is the shortfall receivable activity for the year ended June 30, 2022:

	Beginning Balance	Increase	Decrease	Ending Balance	Due Within One Year
2018 DWSD budget shortfall	\$ 8,296,578	\$ -	\$ (8,296,578)	\$ -	-

NOTE 10 – 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	\$ 28,142,843	\$ -	\$ -	\$ 251,764	\$ 28,394,607
Easements	96,211,323	-	-	2,098,190	98,309,513
Construction in progress	191,120,285	67,449,150	-	(65,468,972)	193,100,463
Prepaid subscription assets	-	721,724	-	-	721,724
Total Nondepreciable and Nonamortizable Capital Assets	315,474,451	68,170,874	-	(63,119,018)	320,526,307
Depreciated capital assets					
Site improvements	51,660,505	75,308	-	770,375	52,506,188
Buildings and structures	1,156,499,808	146,437	-	10,802,868	1,167,449,113
Infrastructure	619,819,263	-	-	5,888,382	625,707,645
Machinery and equipment	1,311,290,921	11,414,594	(779,079)	45,030,675	1,366,957,111
Vehicles	5,953,693	1,134,531	(170,319)	-	6,917,905
Leasehold improvements	3,137,248	-	-	626,718	3,763,966
Total Depreciable Assets	3,148,361,438	12,770,870	(949,398)	63,119,018	3,223,301,928
Less: Accumulated depreciation					
Site improvements	(29,293,587)	(3,215,117)	-	-	(32,508,704)
Buildings and structures	(254,566,401)	(37,353,917)	-	-	(291,920,318)
Infrastructure	(75,607,745)	(13,740,637)	-	-	(89,348,382)
Machinery and equipment	(564,825,107)	(102,709,676)	207,755	-	(667,327,028)
Vehicles	(2,106,753)	(775,741)	170,319	-	(2,712,175)
Leasehold improvements	(489,185)	(218,541)	-	-	(707,726)
Total Accumulated Depreciation	(926,888,778)	(158,013,629)	378,074	-	(1,084,524,333)
Total Depreciated Capital Assets, Net	2,221,472,660	(145,242,759)	(571,324)	63,119,018	2,138,777,595
Intangible asset – right to use asset	4,543,607	-	-	-	4,543,607
Less: Accumulated amortization	(109,926)	(439,704)	-	-	(549,630)
Total Intangible Assets, Net	4,433,681	(439,704)	-	-	3,993,977
Net Capital Assets	\$ 2,541,380,792	\$ (77,511,589)	\$ (571,324)	\$ -	\$ 2,463,297,879

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 SEWAGE DISPOSAL FUND

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

NOTE 10 – CAPITAL ASSETS (cont.)

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 11 – 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	\$ 9,098,348
Advanced insurance proceeds	<u>644,858</u>
Total Other Accrued Liabilities	<u>\$ 9,743,206</u>

NOTE 12 – DUE TO OTHER GOVERNMENTS

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

Green infrastructure	<u>\$ 3,750,000</u>
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GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 13 – 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	\$ 2,515,455,000	\$ -	\$ (75,710,000)	\$ -	\$ 2,439,745,000	\$ 35,665,000
Capital appreciation bonds	5,675,000	-	(5,675,000)	-	-	-
Notes from direct borrowings and direct placements-State revolving loan	416,767,850	10,503,366	(46,815,000)	(808,000)	379,648,216	47,936,430
Total Bonds and Loans	2,937,897,850	10,503,366	(128,200,000)	(808,000)	2,819,393,216	83,601,430
Discount on capital appreciation bonds	(170,931)	-	170,931	-	-	-
Deferred amounts for:						
Unamortized premiums	130,678,706	-	(12,720,139)	-	117,958,567	12,504,194
Unamortized discounts	(68,491,307)	-	9,174,925	-	(59,316,382)	(8,793,079)
Total Bonds and Loans, Net	2,999,914,318	10,503,366	(131,574,283)	(808,000)	2,878,035,401	87,312,545
Other Debt						
BC Note obligation	37,645,780	-	(436,911)	-	37,208,869	458,756
Total	\$ 3,037,560,098	\$ 10,503,366	\$ (132,011,194)	\$ (808,000)	\$ 2,915,244,270	\$ 87,771,301

As of June 30, 2022, aggregate debt service requirements of the Authority's bonds and loans (fixed and variable-rate) were as follows. These amounts assume that current interest rates on variable-rate bonds will remain the same for their respective terms. As these rates vary, interest payments on variable-rate bonds will vary.

Year Ended June 30	Bonds		Notes from Direct Borrowings and Direct Placements		Total
	Principal	Interest	Principal	Interest	
2023*	\$ 35,665,000	\$ 81,137,536	\$ 47,936,430	\$ 8,210,746	\$ 172,949,712
2024	83,475,000	96,974,031	40,360,000	7,188,734	227,997,765
2025	98,650,000	92,838,983	41,265,870	6,271,040	239,025,893
2026	101,895,000	88,197,970	27,373,152	5,471,828	222,937,950
2027	111,945,000	83,397,094	24,805,000	4,917,078	225,064,172
2028 - 2032	672,355,000	338,564,893	108,248,511	16,814,924	1,135,983,328
2033 - 2037	831,540,000	182,552,944	71,643,260	6,493,521	1,092,229,725
2038 - 2042	399,565,000	44,946,983	16,965,993	731,375	462,209,351
2043 - 2047	94,650,000	9,172,617	1,050,000	10,500	104,883,117
2048 - 2049	10,005,000	506,375	-	-	10,511,375
Total	\$ 2,439,745,000	\$ 1,018,289,426	\$ 379,648,216	\$ 56,109,746	\$ 3,893,792,388

* 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 SEWAGE DISPOSAL FUND

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

NOTE 13 – 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 2001B	9/15/01	110,550,000	5.50%	7/01/23-29	\$ 78,895,000	\$ -
Series 2003B	6/17/09	150,000,000	7.50%	7/01/33	100,000	100,000
Series 2004A	2/12/04	101,435,000	5.25%	7/01/22-24	12,640,000	-
Series 2005A	3/17/05	273,355,000	4.50%	7/01/35	100,000	100,000
Series 2005B	3/17/05	40,215,000	5.50%	7/01/22	6,695,000	-
Series 2005C	4/05/05	63,160,000	5.00%	7/01/25	100,000	100,000
Series 2006B	8/10/06	250,000,000	5.00%	7/01/36	100,000	100,000
Series 2006D	12/14/06	370,000,000	Variable(*)	7/01/26-32	239,475,000	239,475,000
Series 2012A	6/26/12	659,780,000	5.00%	7/01/21-23	32,105,000	17,985,000
Series 2014C-3	9/04/14	446,170,000	5.00%	7/01/23-33	381,800,000	303,570,000
Series 2014C-6	9/04/14	143,880,000	5.00%	7/01/32-33	88,900,000	88,900,000
Series 2014C-7	9/04/14	76,715,000	5.00%	7/01/23-36	50,000,000	44,065,000
Series 2015C	12/15/15	197,660,000	5.00%	7/01/26-35	197,160,000	197,160,000
Series 2016B	10/27/16	126,105,000	5.00%	7/01/24-34	126,105,000	111,660,000
Series 2016C	10/27/16	295,190,000	4.00-5.00%	7/01/27-36	295,190,000	295,190,000
Series 2018A	10/03/18	81,595,000	5.00%	7/1/22-48	78,810,000	67,040,000
Series 2018B	10/03/18	131,690,000	5.00%	7/1/24-49	131,690,000	-
Series 2018C**	10/03/18	44,180,000	3.4-3.613%	7/1/22-24	37,350,000	-
Series 2020A**	6/16/20	594,930,000	1.503-3.506%	7/01/23-44	594,930,000	108,540,000
Series 2020B**	6/16/20	92,525,000	1.492-3.606%	7/1/22-44	<u>87,600,000</u>	<u>15,325,000</u>
Total Revenue Bonds Payable					<u>\$ 2,439,745,000</u>	

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

** Taxable bond

Refunded Debt

In prior years, the Authority's Sewage Disposal Fund defeased certain bonds by placing the proceeds of new bonds in irrevocable trusts for the purpose of generating resources for all future debt service payments on the refunded debt. As a result, the refunded bonds are considered to be defeased and the trust fund assets and related liabilities have been removed from the statement of net position. At June 30, 2022, the balance of the bonds considered to be defeased is \$570,460,000. These defeased bonds include the following revenue bonds: \$419,810,000 Series 2012A, \$123,200,000 Series 2014C-1 and \$27,450,000 2014C-2. As a result, the refunded bonds are considered to be defeased and the trust fund assets and related liabilities have been removed from the statement of net position. These bonds were called July 1, 2022.

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.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 13 – LONG-TERM DEBT (cont.)

STATE REVOLVING FUND LOANS

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

The Authority's Sewage Disposal Fund received direct borrowing loans from the State of Michigan Revolving Loan Fund during the year ended June 30, 2022 totaling \$10,503,366 of which \$808,000 has been forgiven. The sewer loans forgiven and \$1,288,152 of the Sewage Disposal Fund loans were a pass through to DWSD the subrecipient of the loans. The remaining proceeds of the Sewage Disposal Fund loans were used to pay costs of acquiring, constructing extensions, and making certain repairs and improvements to the regional sewage disposal system. At June 30, 2022, the Authority has not fully drawn the amounts of authorized State of Michigan revolving fund bond issues. The amount of undrawn is \$64,624,532 for the Sewage Disposal Fund. Of the undrawn amount, \$9,633,098 of the Sewage Disposal Fund are for pass through loans to DWSD.

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 13 – LONG-TERM DEBT (cont.)

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 1999 SRF-2	9/30/99	\$ 46,000,000	2.50%	10/01/22	\$ 2,885,000
Series 2000 SRF-1	3/30/00	44,197,995	2.50%	10/01/22	2,667,995
Series 2000 SRF-2	9/28/00	64,401,066	2.50%	10/01/22	4,016,066
Series 2001 SRF-1	6/28/01	82,200,000	2.50%	10/01/22-24	15,095,000
Series 2001-SRF-2	12/20/01	59,850,000	2.50%	10/01/22-24	10,990,000
Series 2002 SRF-1	6/27/02	18,985,000	2.50%	4/01/23	1,190,000
Series 2002 SRF-2	6/27/02	1,545,369	2.50%	4/01/23	95,369
Series 2002 SRF-3	12/19/02	31,549,466	2.50%	10/01/22-24	5,329,466
Series 2003 SRF-1	6/26/03	48,520,000	2.50%	10/01/22-25	11,735,000
Series 2003 SRF-2	9/25/03	25,055,370	2.50%	4/01/23-25	4,565,370
Series 2004 SRF-1	6/24/04	2,910,000	2.125%	10/01/22-24	520,000
Series 2004 SRF-2	6/24/04	18,353,459	2.125%	4/01/23-25	3,263,459
Series 2004 SRF-3	6/24/04	12,722,575	2.125%	4/01/23-25	2,252,575
Series 2007 SRF-1	9/20/07	167,540,598	1.625%	10/01/22-29	73,570,598
Series 2009 SRF-1	4/17/09	13,970,062	2.50%	4/01/23-30	6,215,062
Series 2010 SRF-1	1/22/10	4,214,763	2.50%	4/01/23-31	2,120,763
Series 2012 SRF-1	8/30/12	14,950,000	2.50%	10/01/22-34	10,535,000
Series 2015A SRF	3/20/15	79,500,000	2.50%	4/01/23-36	59,625,000
Series 2015B SRF	3/20/15	27,175,304	2.50%	10/01/22-35	20,005,304
Series 2015D SRF	12/11/15	15,321,478	2.50%	10/01/22-35	11,061,478
Series 2016 SAW-1	5/25/16	10,000,000	2.50%	10/01/22-38	8,800,000
Series 2016 SRF-1	9/16/16	15,463,628	2.50%	4/01/23-38	12,733,628
Series 2016 SRF-2	9/16/16	48,315,683	2.50%	4/01/23-39	42,145,683
Series 2017 SRF-1	6/23/17	33,566,682	2.50%	10/01/22-38	29,746,682
Series 2018 SRF-2	9/14/18	17,510,000	2.00%	10/01/23-42	17,510,000
Series 2020 SRF-1	3/27/20	28,350,000	2.00%	10/1/23-35	16,456,478
Series 2020 SRF-2	9/30/20	3,232,000	2.00%	10/1/22-25	480,152
Series 2021 SRF-1	3/26/21	12,940,000	1.875%	10/1/23-30	4,037,088
Series 2021 SRF-2*	9/24/21	6,881,250	1.875%	-	-
Series 2022 SRF-1*	6/6/22	34,195,000	1.875%	-	-
Total State Revolving Loans Payable					<u>\$ 379,648,216</u>

* Loan has been authorized, no draws on loan as of June 30, 2022.

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 Sewer System bonds and loans are paid solely from the net revenues of the Sewer System. Net revenues are defined in the Great Lakes Water Authority 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.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 13 – LONG-TERM DEBT (cont.)

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

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

Remaining principal and interest requirement	\$ 3,893,792,388
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)	\$ 235,847,946
Pledged revenue for the year ending June 30, 2022	\$ 344,749,187
Pledged revenue collected as a percentage of funding requirement	146%

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 upgraded the ratings on the sewage disposal system senior lien debt by one notch to AA- and the sewage disposal system second lien debt by one notch to A+. Both were assigned a stable outlook. Moody's Investor Services upgraded the ratings on the sewage disposal system senior lien debt by one notch to A1 and second lien debt by one notch to A2. The ratings outlook for both remained stable. Fitch upgraded the ratings on the sewage disposal system senior lien debt by one notch to A+ and second lien debt by one notch to an A. Both with a stable outlook.

In March 2020 Standard & Poor's Global Ratings Services upgraded the sewage disposal system SRF bonds from A to A+.

See Note 21 for rating agency upgrades received in August 2022.

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 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.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 13 – LONG-TERM DEBT (cont.)

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

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

Bond Issue (GLWA share)	Original Issue Amount (GLWA share)	Range of Interest Rates	Maturity Date	Outstanding Ending Balance
Series 2014-B	44,233,463	4.00% and variable	4/1/44	\$ 34,990,439
Series 2014-C	6,382,990	5.00%	6/30/27	2,218,430
Total				<u>\$ 37,208,869</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	\$ 458,756	\$ 1,510,539	\$ 1,969,295
2024	481,694	1,487,601	1,969,295
2025	2,255,301	1,463,516	3,718,817
2026	2,280,590	1,368,246	3,648,836
2027	1,990,655	1,271,712	3,262,367
2028 - 2032	8,747,608	5,248,564	13,996,172
2033 - 2037	8,747,608	4,443,785	13,191,393
2038 - 2042	8,747,608	2,624,282	11,371,890
2043 - 2044	3,499,049	314,914	3,813,963
Total	<u>\$ 37,208,869</u>	<u>\$ 19,733,159</u>	<u>\$ 56,942,028</u>

INTEREST EXPENSE

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

	Sewage Disposal Fund
Revenue bonds and loans	\$ 108,637,990
Regional System Lease	20,809,759
BC Note obligation	1,532,384
Lease-right to use asset	129,992
Total Interest Expense	<u>\$ 131,110,125</u>

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 14 – REGIONAL SYSTEMS LEASES PAYABLE AND RELATED PREPAID LEASE

On January 1, 2016, the Authority effectuated lease agreements with the City for the regional water and sewage disposal systems for a term of 40 years, to be extended automatically to coincide with the final maturity of any bonds issued to finance improvements to the regional or local sewage disposal systems. The agreements collectively provide for an annual lease payment of \$50 million. Currently, \$27,500,000 is allocated to the Sewage Disposal Fund. The lease for the sewage disposal system provides service to the wholesale customers and the retail sewage disposal customers of the City up to the point of connection to the local sewage disposal system facilities of the City. In addition, 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 Sewage Disposal Regional System lease payable for the year ended June 30, 2022 is as follows:

Beginning Balance	Increase	Decrease	Ending Balance	Amount due Within One Year*
\$ 502,623,348	\$ -	\$ (6,667,073)	\$ 495,956,275	\$ 6,950,466

* 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 Sewage Disposal Regional System lease is as follows:

Year Ended June 30	Principal	Interest	Total
2023	\$ 6,950,466	\$ 20,549,534	\$ 27,500,000
2024	7,245,904	20,254,096	27,500,000
2025	7,553,901	19,946,099	27,500,000
2026	7,874,989	19,625,011	27,500,000
2027	8,209,726	19,290,274	27,500,000
2028 - 2032	46,589,388	90,910,612	137,500,000
2033 - 2037	57,369,417	80,130,583	137,500,000
2038 - 2042	70,643,770	66,856,230	137,500,000
2043 - 2047	86,989,594	50,510,406	137,500,000
2048 - 2052	107,117,575	30,382,425	137,500,000
2053 - 2056	89,411,545	6,838,455	96,250,000
Total	\$ 495,956,275	\$ 425,293,725	\$ 921,250,000

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

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

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

NOTE 15 – 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
Lease payable – right to use asset	\$ 4,447,297	\$ -	\$ (189,119)	\$ 4,258,178	\$ 366,784
Compensated absences	847,122	1,592,356	(1,622,503)	816,975	719,079
Claim and judgements	9,325,000	525,000	-	9,850,000	2,350,000
Cash held for the benefit of DWSD budget stabilization	5,500,000	-	-	5,500,000	-
Total	\$ 20,119,419	\$ 2,117,356	\$ (1,811,622)	\$ 20,425,153	\$ 3,435,863

LEASE PAYABLE – RIGHT TO USE ASSET

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

The future lease payments are detailed below:

Year Ended June 30	Principal	Interest	Total
2023	\$ 366,784	\$ 122,762	\$ 489,546
2024	390,070	111,443	501,513
2025	414,719	99,404	514,123
2026	436,958	86,622	523,580
2027	462,398	73,181	535,579
2028 - 2032	<u>2,187,249</u>	<u>141,717</u>	<u>2,328,966</u>
Total	\$ 4,258,178	\$ 635,129	\$ 4,893,307

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 15 – OTHER LIABILITIES (cont.)

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

	<u>Cost</u>	<u>Accumulated Amortization</u>	<u>Ending Book Value</u>
Warehouse	\$ 4,543,607	\$ (549,630)	\$ 3,993,977

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 \$816,975 for the Sewage Disposal Fund of which \$719,079 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.

CLAIMS AND JUDGEMENTS

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

CASH HELD FOR THE BENEFIT OF DWSD BUDGET STABILIZATION

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

NOTE 16 – RISK MANAGEMENT/SELF-INSURANCE PROGRAMS

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

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

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.

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

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

WORKERS' COMPENSATION

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

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

NOTE 17 – DEFINED CONTRIBUTION PENSION PLANS

DEFINED CONTRIBUTION PLANS

The Great Lakes Water Authority Defined Contribution Retirement Plan is a 401(a) governmental money purchase plan administered by ICMA Retirement Corporation (the "Administrator") to provide benefits at retirement to all full-time employees of the Authority. The Authority contributes 6.0% of earnings to the plan. The Authority will make an additional contribution to the 401(a) plan to match employee contributions under the Great Lakes Water Authority 457 Plan up to 3% of compensation. Employees are 100% vested after three years of service (cliff vesting). Employees who transferred to the Authority on or around January 1, 2016 from DWSD retain their years of service for vesting purposes. The Authority recognized expense of \$5,154,140, 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.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 17 – DEFINED CONTRIBUTION PENSION PLANS (cont.)

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.

NOTE 18 – NET PENSION LIABILITY (SPECIAL FUNDING SITUATION)

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

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

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

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

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 \$19,347,900 for the Sewage Disposal 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 \$1,127,500 paid by the Sewage Disposal Fund. Part of the administrative fee is considered a prepayment based on actual administrative expenses incurred by the plan as reported in the other supplemental information of the audited financial report of the GRS Plan.

Subsequent to 2023, DWSD and the Authority will be responsible for paying their allocable share of any additional amounts that are actuarially determined to be payable. An estimate of the 2024 contribution was included in the GRS annual actuarial valuation of Component II dated June 30, 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 \$0.27 million allocated to the Sewage Disposal Fund.

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

DWSD Employee Contributions. Contribution requirements of plan members are established and may be amended by the GRS Board of Trustees in accordance with the City Charter, union contracts, and plan provisions. For the year ended June 30, 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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

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

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.

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 Sewage Disposal Fund's share of the net pension liability are summarized as follows:

Total pension liability	\$ 328,574,957
Plan fiduciary net position	(286,733,110)
Net Pension Liability	\$ 41,841,847

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 18 – 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	\$ 326,046,271	\$ 233,469,252	\$ 92,577,019
Changes for the year:			
Interest	22,012,546	-	22,012,546
Difference between expected and actual experience	(5,904,906)	-	(5,904,906)
Changes in assumptions	14,928,696	-	14,928,696
Employer contributions	-	19,347,900	(19,347,900)
Net investment income	-	61,578,019	(61,578,019)
Benefit payments, including refunds of employee contributions	(28,507,650)	(28,507,650)	-
Other changes	-	845,589	(845,589)
Net changes	<u>2,528,686</u>	<u>53,263,858</u>	<u>(50,735,172)</u>
Balances at June 30, 2022	<u>\$ 328,574,957</u>	<u>\$ 286,733,110</u>	<u>\$ 41,841,847</u>

Sensitivity of the Net Pension Liability to Changes in the Discount Rate. The following presents the net pension liability of the Sewage Disposal Fund's calculated using the discount rate of 6.50%, as well as what the Sewage Disposal 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	<u>\$ 53,303,517</u>	<u>\$ 41,841,847</u>	<u>\$ 32,055,303</u>

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 \$8,927,171 for the Sewage Disposal Fund. At June 30, 2022, the Sewage Disposal 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	\$ -	\$ 20,087,733	\$ (20,087,733)
Employer contributions to the plan subsequent to the measurement date	<u>19,347,900</u>	<u>-</u>	<u>19,347,900</u>
Total	<u>\$ 19,347,900</u>	<u>\$ 20,087,733</u>	<u>\$ (739,833)</u>

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 18 – 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	\$ (3,294,438)
2024	(2,646,942)
2025	(5,068,638)
2026	<u>(9,077,715)</u>
Total	<u>\$ (20,087,733)</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 19 – COMMITMENTS AND CONTINGENCIES

CAPITAL IMPROVEMENT PROGRAM

The Authority is engaged in a variety of projects that are part of its five-year capital improvement program (the Program). The total cost of this Program is anticipated to be approximately \$761.8 million with a 75% spend rate assumption of \$571.3 million for the Sewage Disposal Fund 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 \$134 million for the Sewage Disposal Fund.

The current wastewater disposal service contract with the Oakland-Macomb Interceptor Drain Drainage District (OMIDD) provides for OMIDD to maintain, repair, and improve Interceptor PCI-5, the Northeast Sewer Pump Station and the North Interceptor East Arm, which are related to the capital assets in the Regional Sewage Disposal System Lease (See Note 14). The amount of capital improvements in progress related to the contract are estimated by OMIDD to be worth \$57.6 million for the Sewage Disposal Fund at June 30, 2022. At a future date, in accordance with the contract, OMIDD will offer and transfer the assets, following GLWA's acceptance, as the assets are placed in service.

SUBSCRIPTION-BASED INFORMATION TECHNOLOGY ARRANGEMENTS (SBITA)

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

NEXGEN is an enterprise asset management system subscription service. The contract is a \$1.7 million purchase for a duration of five years with one two-year renewal. The contract ends November 30, 2026 with a two-year renewal which would end November 30, 2028. The anticipated in-service date is expected during fiscal year 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.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 19 – COMMITMENTS AND CONTINGENCIES (cont.)

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.

2021 RAIN EVENTS

During the Summer of 2021, GLWA's service area experienced several intense rain events. These rain events resulted in sewer backups, causing property damage. GLWA received over 23,000 property damage claims from these intense rain events. Most of the claims relate to rain events occurring on June 25-26, 2021 and July 16, 2021.

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

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

The Authority has submitted an initial insurance claim for repairs and maintenance costs incurred from the flood damage and has received a payment of \$1 million during the fiscal year. This payment was net of the \$1 million deductible on the policy. The Authority expects future additional costs for repairs and maintenance and debris removal from the interceptors as a result of the heavy rains. The amount is not able to be estimated at this time. Claims will be submitted to the insurance as these costs are incurred.

CONTINGENCIES

The Authority is subject to various government environmental laws and regulations. GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*, established accounting and financial reporting standards for pollution (including contamination) remediation obligations, which are obligations to address the current or potential detrimental effects of existing pollution by participating in pollution remedial activities such as site assessments and cleanups. The standard excludes pollution prevention or control obligations with respect to current operations, and future pollution remediation activities that are required upon retirement of an asset, such as landfill closure and post-closure care. The Authority determined that there were no estimated pollution remediation obligations to be recorded at June 30, 2022.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

NOTE 19 – COMMITMENTS AND CONTINGENCIES (cont.)

GASB Statement No. 83, *Certain Asset Retirement Obligations*, established accounting and financial reporting standards for legally enforceable liabilities related to the retirement of tangible capital asset(s) where the tangible capital asset is permanently removed from service. The retirement of a tangible capital asset can occur via sale, abandonment, recycling or disposal in some other manner and excludes the temporary idling of a tangible capital asset. An asset retirement obligation does not apply to obligations resulting from the disposal, or plan to dispose, of a tangible capital asset; obligation(s) associated with using a tangible capital asset for a different purpose; obligation(s) for pollution remediation; obligation(s) from regular maintenance or the cost to replace a component. The Authority determined there were no legally enforceable asset retirement obligations to be recorded at June 30, 2022.

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

The Authority is a defendant in numerous alleged claims, lawsuits, billing disputes, and other stated and pending demands. The Authority's Legal Department has estimated a reserve of \$9,850,000 for the Sewage Disposal 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 SEWAGE DISPOSAL FUND

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

NOTE 20 – 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	\$ 320,526,307
Capital assets being depreciated, net	2,138,777,595
Intangible asset – net	<u>3,993,977</u>
Total Capital Assets and Intangible Asset	<u>2,463,297,879</u>
Less: Related Debt	
Total bonds and loans, net (Note 13)	2,878,035,401
Less: Portion of bonds used for SWAP termination agreements	(222,813,324)
Less: Obligation receivable-local share of debt (Note 8)	(385,198,595)
Deferred charge on refunding	(110,341,248)
Deferred gain on refunding	40,566,648
Capital portion of regional system lease	344,342,442
Lease obligation-right to use asset (Note 15)	<u>4,258,178</u>
Total Related Debt	<u>2,548,849,502</u>
Net Investment in Capital Assets	<u>\$ (85,551,623)</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 14.

NOTE 21 – SUBSEQUENT EVENTS

JUNIOR LIEN REVENUE BONDS

The Authority received two orders of approvals from EGLE in August 2022, one for \$50.3 million and one for \$19 million, both for regional sewage disposal system improvements. These order of approvals are for the \$66 million SRF Junior Lien Sewage Disposal System Revenue Bonds (Ordinance No. 2022-04) approved by the GLWA Board in June 2022 and \$21 million SRF Junior Lien Sewage Disposal System Revenue Bonds (Ordinance No. 2022-05) approved by the GLWA Board in July 2022.

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

RATING AGENCY UPGRADES

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

SEWER BOND REFUNDING AND SEWER NEW MONEY BOND TRANSACTION

On September 13, 2022, the Authority issued a bond refunding and new money sewage disposal system transaction. The Authority issued \$210,455,000 of Sewage Disposal System Revenue Bonds (\$197,965,000 in new money and \$12,490,000 in refunding bonds). The net present value savings from the refunding transaction for the sewage disposal fund was \$211,718.

REQUIRED SUPPLEMENTARY INFORMATION

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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 - Sewage Disposal 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	\$ 22,012,546	\$ 23,277,566	\$ 23,544,630	\$ 23,465,553	\$ 24,268,718	\$ 25,906,278	\$ 32,970,738
Differences between expected and actual experience	(5,904,906)	(6,585,459)	2,220,999	(205,683)	1,519,917	(3,248,690)	(274,022)
Changes in assumptions	14,928,696	8,406,113	-	(13,693,822)	9,721,266	11,308,613	(12,695,976)
Benefit changes	-	-	-	-	-	-	(97,749,668)
Benefit payments, including refunds of employee contributions	(28,507,650)	(28,932,239)	(29,836,515)	(30,406,407)	(32,770,558)	(44,676,314)	(34,831,342)
Net change	2,528,686	(3,834,019)	(4,070,886)	(20,840,359)	2,739,343	(10,710,113)	(112,580,270)
Share of total pension liability, beginning of year	326,046,271	329,880,290	333,951,176	354,791,535	352,052,192	362,762,305	475,342,575
Share of Total Pension Liability, End of Year	328,574,957	326,046,271	329,880,290	333,951,176	354,791,535	352,052,192	362,762,305
Share of Plan Fiduciary Net Position							
Employer contributions	19,347,900	19,347,900	19,347,900	19,347,900	19,347,900	19,347,900	19,342,889
Employee contributions	-	-	-	-	-	-	84,010
Net investment income (loss)	61,578,019	(2,318,571)	5,898,562	19,468,812	24,899,462	(841,679)	11,085,930
Benefit payments, including refunds of employee contributions	(28,507,650)	(28,932,239)	(29,836,515)	(30,406,407)	(32,770,558)	(44,676,314)	(34,831,342)
Administrative expense	-	-	-	-	-	-	(13,661)
Other changes	845,589	758,387	(76,643)	889,186	958,487	161,836	17,808,122
Net change	53,263,858	(11,144,523)	(4,666,696)	9,299,491	12,435,291	(26,008,257)	13,475,948
Share of plan fiduciary net position, beginning of year	233,469,252	244,613,775	249,280,471	239,980,980	227,545,689	253,553,946	240,077,998
Share of Plan Fiduciary Net Position, End of Year	286,733,110	233,469,252	244,613,775	249,280,471	239,980,980	227,545,689	253,553,946
SHARE OF NET PENSION LIABILITY	\$ 41,841,847	\$ 92,577,019	\$ 85,266,515	\$ 84,670,705	\$ 114,810,555	\$ 124,506,503	\$ 109,208,359
Nonemployer contributing entity share of collective net pension liability - Sewage Disposal Fund	4.7%	8.4%	9.1%	10.2%	12.2%	12.5%	13.2%
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 \$24,448,667.

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 SEWAGE DISPOSAL 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**	\$ 19,347,900	\$ 19,347,900	\$ 19,347,900	\$ 19,347,900	\$ 19,347,900	\$ 19,347,900	\$ 19,347,900
Actual contribution	19,347,900	19,347,900	19,347,900	19,347,900	19,347,900	19,347,900	19,347,900
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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

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

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

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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 SEWAGE DISPOSAL FUND

COMBINING SCHEDULE OF NET POSITION - SEWAGE DISPOSAL FUND

As of June 30, 2022

	<u>Sewer Operations Fund</u>	<u>Sewer Improvement and Extension Fund</u>	<u>Sewer Construction Fund</u>	<u>Total Sewage Disposal Fund</u>
Assets				
Current Assets				
Cash and cash equivalents	\$ 131,968,097	\$ 52,493,924	\$ 16,002,376	\$ 200,464,397
Restricted cash and cash equivalents	30,966,553	11,659	7,596,015	38,574,227
Restricted cash for the benefit of DWSD	9,098,348	-	-	9,098,348
Investments	41,907,950	51,801,283	-	93,709,233
Restricted investments	73,042,550	-	-	73,042,550
Receivables:				
Billed	64,722,773	-	-	64,722,773
Unbilled	24,045,449	-	-	24,045,449
Other	996,875	-	-	996,875
Allowance for doubtful accounts	(42,906,498)	-	-	(42,906,498)
Due from other governments	1,916,727	291,545	-	2,208,272
Due from other sewage disposal funds	-	1,156,547	266,181	1,422,728
Contractual obligation receivable	15,403,674	-	-	15,403,674
Prepaid items and other assets	4,751,569	169,329	-	4,920,898
Inventories	8,366,771	-	-	8,366,771
Total Current Assets	<u>364,280,838</u>	<u>105,924,287</u>	<u>23,864,572</u>	<u>494,069,697</u>
Noncurrent assets				
Restricted cash and cash equivalents	2,491,300	-	-	2,491,300
Restricted investments	31,184,328	-	-	31,184,328
Contractual obligation receivable	369,794,921	-	-	369,794,921
Prepaid lease	13,750,000	-	-	13,750,000
Assets not subject to depreciation or amortization	320,526,307	-	-	320,526,307
Capital assets being depreciated, net	2,138,777,595	-	-	2,138,777,595
Intangible assets, net	3,993,977	-	-	3,993,977
Prepaid insurance on debt	10,124,011	-	-	10,124,011
Total Noncurrent Assets	<u>2,890,642,439</u>	<u>-</u>	<u>-</u>	<u>2,890,642,439</u>
Total Assets	<u>3,254,923,277</u>	<u>105,924,287</u>	<u>23,864,572</u>	<u>3,384,712,136</u>
Deferred Outflows of Resources				
Deferred charge on refunding	110,341,248	-	-	110,341,248
Deferred pension amounts	19,347,900	-	-	19,347,900
Total Deferred Outflows of Resources	<u>129,689,148</u>	<u>-</u>	<u>-</u>	<u>129,689,148</u>

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

	Sewer Operations Fund	Sewer Improvement and Extension Fund	Sewer Construction Fund	Total Sewage Disposal Fund
Liabilities				
Current Liabilities				
Accounts and contracts payable	\$ 16,174,427	\$ 2,013,533	\$ 19,300,303	\$ 37,488,263
Accrued salaries, wages and benefits	1,013,356	-	-	1,013,356
Accrued liabilities	9,743,206	-	-	9,743,206
Due to other governments	3,750,000	-	-	3,750,000
Due to other funds	15,877	1,633,450	678,759	2,328,086
Due to other sewage disposal funds	1,417,359	5,369	-	1,422,728
Interest payable	34,566,553	-	-	34,566,553
Current portion of:				
Revenue bonds and loans	87,312,545	-	-	87,312,545
BC Note obligation	458,756	-	-	458,756
Regional system lease	6,950,466	-	-	6,950,466
Other liabilities	3,435,863	-	-	3,435,863
Total Current Liabilities	<u>164,838,408</u>	<u>3,652,352</u>	<u>19,979,062</u>	<u>188,469,822</u>
Noncurrent Liabilities				
Revenue bonds and loans	2,790,722,856	-	-	2,790,722,856
BC Note obligation	36,750,113	-	-	36,750,113
Regional system lease	489,005,809	-	-	489,005,809
Other liabilities	16,989,290	-	-	16,989,290
Net pension liability	41,841,847	-	-	41,841,847
Total Noncurrent Liabilities	<u>3,375,309,915</u>	<u>-</u>	<u>-</u>	<u>3,375,309,915</u>
Total Liabilities	<u>3,540,148,323</u>	<u>3,652,352</u>	<u>19,979,062</u>	<u>3,563,779,737</u>
Deferred Inflows of Resources				
Deferred gain on refunding	40,566,648	-	-	40,566,648
Deferred amounts for swap terminations	457	-	-	457
Deferred pension amounts	20,087,733	-	-	20,087,733
Total Deferred Inflows of Resources	<u>60,654,838</u>	<u>-</u>	<u>-</u>	<u>60,654,838</u>
Net Position (Deficit)				
Net investment in capital assets	(85,551,623)	-	-	(85,551,623)
Restricted for debt service	91,754,608	-	-	91,754,608
Restricted for payment assistance program	7,045,715	-	-	7,045,715
Unrestricted	(229,439,436)	102,271,935	3,885,510	(123,281,991)
TOTAL NET POSITION	<u>\$ (216,190,736)</u>	<u>\$ 102,271,935</u>	<u>\$ 3,885,510</u>	<u>\$ (110,033,291)</u>

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

	<u>Sewer Operations Fund</u>	<u>Sewer Improvement and Extension Fund</u>	<u>Sewer Construction Fund</u>	<u>Total Sewage Disposal Fund</u>
Operating Revenues				
Wholesale customer charges	\$ 268,813,369	\$ -	\$ -	\$ 268,813,369
Local system charges	188,662,200	-	-	188,662,200
Industrial waste charges	8,300,278	-	-	8,300,278
Pollutant surcharges	5,181,816	-	-	5,181,816
Other revenues	<u>429,491</u>	<u>-</u>	<u>-</u>	<u>429,491</u>
Total Operating Revenues	<u>471,387,154</u>	<u>-</u>	<u>-</u>	<u>471,387,154</u>
Operating Expenses				
Operating expenses before depreciation and amortization				
Personnel	62,160,768	-	-	62,160,768
Contractual services	58,570,159	4,839,950	-	63,410,109
Utilities	30,930,459	-	-	30,930,459
Chemicals	12,593,379	-	-	12,593,379
Supplies and other expenses	19,911,985	-	-	19,911,985
Capital program allocation	(1,013,677)	-	-	(1,013,677)
Intergovernmental reimbursements	<u>(771,355)</u>	<u>(302,991)</u>	<u>-</u>	<u>(1,074,346)</u>
Total Operating Expenses Before Depreciation and Amortization	<u>182,381,718</u>	<u>4,536,959</u>	<u>-</u>	<u>186,918,677</u>
Depreciation	158,013,629	-	-	158,013,629
Amortization of intangible assets	<u>439,704</u>	<u>-</u>	<u>-</u>	<u>439,704</u>
Total Operating Expenses	<u>340,835,051</u>	<u>4,536,959</u>	<u>-</u>	<u>345,372,010</u>
Operating Income (Loss)	<u>130,552,103</u>	<u>(4,536,959)</u>	<u>-</u>	<u>126,015,144</u>
Nonoperating Revenues (Expenses)				
Earnings (loss) on investments	(2,172,598)	(877,209)	26,925	(3,022,882)
Interest on shortfall and obligations receivable	17,157,558	-	-	17,157,558
Interest expense	(131,110,125)	-	-	(131,110,125)
Amortization of debt related items and cost of issuance	(2,292,419)	-	-	(2,292,419)
Legacy pension expense	(8,927,171)	-	-	(8,927,171)
WRAP (Water Residential Assistance Program)	(1,742,929)	-	-	(1,742,929)
Other	(234,915)	-	-	(234,915)
Capital outlay	<u>73,228,981</u>	<u>(8,080,463)</u>	<u>(65,148,518)</u>	<u>-</u>
Total Nonoperating Revenues (Expenses)	<u>(56,093,618)</u>	<u>(8,957,672)</u>	<u>(65,121,593)</u>	<u>(130,172,883)</u>
Income (Loss) Before Transfers and Capital Contributions	74,458,485	(13,494,631)	(65,121,593)	(4,157,739)
Transfer in	1,463,926	42,964,809	57,560,908	101,989,643
Transfer out	(52,380,023)	(49,583,145)	(26,475)	(101,989,643)
Capital Contributions	<u>6,991,039</u>	<u>-</u>	<u>-</u>	<u>6,991,039</u>
Change in net position	30,533,427	(20,112,967)	(7,587,160)	2,833,300
NET POSITION (DEFICIT), Beginning of Year	<u>(246,724,163)</u>	<u>122,384,902</u>	<u>11,472,670</u>	<u>(112,866,591)</u>
NET POSITION (DEFICIT), END OF YEAR	<u>\$ (216,190,736)</u>	<u>\$ 102,271,935</u>	<u>\$ 3,885,510</u>	<u>\$ (110,033,291)</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 SEWAGE DISPOSAL 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 SEWAGE DISPOSAL FUND

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

	Original Budget	Amended Budget	Administrative and Centralized Services	Final Amended Budget	Actual	Variance Over (Under) Amended Budget	Percent Over (Under) Amended Budget
Operating Expenses							
Personnel	\$ 39,230,515	\$ 37,759,795	\$ 26,939,300	\$ 64,699,095	\$ 62,160,768	\$ (2,538,327)	-3.92%
Contractual services	23,293,638	26,654,738	34,770,100	61,424,838	58,570,159	(2,854,679)	-4.65%
Utilities	23,483,693	30,396,593	180,800	30,577,393	30,930,459	353,066	1.15%
Chemicals	9,381,700	12,432,900	-	12,432,900	12,593,379	160,479	1.29%
Supplies and other expenses	15,968,536	15,224,536	7,312,600	22,537,136	19,911,985	(2,625,151)	-11.65%
Capital program allocation	(1,292,697)	(988,397)	-	(988,397)	(1,013,677)	(25,280)	2.56%
Intergovernmental reimbursements	(344,900)	(771,360)	-	(771,360)	(771,355)	5	0.00%
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	2,250,915	262,595	1,254,000	1,516,595	-	(1,516,595)	-100.00%
Total operating expenses before depreciation and amortization financial reporting basis	181,299,800	191,908,600	(480,400)	191,428,200	182,381,718	(9,046,482)	
SBITA [1]	-	-	160,800	160,800	160,753	(47)	0.00%
Warehouse lease [1]	-	-	319,600	319,600	319,584	(16)	-0.01%
TOTAL OPERATING EXPENSES BUDGET BASIS	<u>\$ 181,299,800</u>	<u>\$ 191,908,600</u>	<u>\$ -</u>	<u>\$ 191,908,600</u>	<u>\$ 182,862,055</u>	<u>\$ (9,046,545)</u>	-4.71%

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

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

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

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

SCHEDULE OF REVENUE REQUIREMENTS BUDGET TO ACTUAL - SEWAGE DISPOSAL 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, Sewage Disposal Operations had a positive variance of approximately \$8.5 million.

	2022 Adopted Budget	2022 Amended Budget	2022 Actual	Variance Over (Under) Amended Budget
Revenues				
Revenue from charges				
Suburban wholesale customers	\$ 272,130,000	\$ 268,130,000	\$ 268,813,369	\$ 683,369
Local system charges	188,662,200	188,662,200	188,662,200	-
Industrial waste control	9,024,800	8,324,800	8,300,278	(24,522)
Pollutant surcharges	<u>4,188,900</u>	<u>5,088,900</u>	<u>5,181,816</u>	<u>92,916</u>
Total revenue from charges	<u>474,005,900</u>	<u>470,205,900</u>	<u>470,957,663</u>	<u>751,763</u>
Other revenue [1]	400,000	538,000	817,448	279,448
Investment earnings [2]	<u>1,023,300</u>	<u>1,876,200</u>	<u>1,842,475</u>	<u>(33,725)</u>
Total Revenues	<u>\$ 475,429,200</u>	<u>\$ 472,620,100</u>	<u>\$ 473,617,586</u>	<u>\$ 997,486</u>
Revenue Requirements				
Operations and maintenance [3]	181,299,800	191,908,600	182,862,055	(9,046,545)
General Retirement System legacy pension	10,824,000	10,824,000	10,824,000	-
Debt service	207,209,500	204,984,500	206,490,151	1,505,651
General Retirement System accelerated pension	11,620,700	11,620,700	11,620,700	-
Water Residential Assistance Program contribution	2,358,300	2,358,300	2,358,300	-
Regional system lease	27,500,000	27,500,000	27,500,000	-
Transfer to the Improvement & Extension Fund [4]	<u>34,616,900</u>	<u>23,424,000</u>	<u>23,424,000</u>	<u>-</u>
Total Revenue Requirements	<u>\$ 475,429,200</u>	<u>\$ 472,620,100</u>	<u>\$ 465,079,206</u>	<u>\$ (7,540,894)</u>
Revenue Requirement Variance	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 8,538,380</u>	<u>\$ 8,538,380</u>

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

[2] Investment earnings excludes earnings on bond proceeds in the construction fund. As required by the Master Bond Ordinance, investment earnings on bond proceeds will remain in the Construction Fund. There were no bond proceeds remaining in the construction fund during the current fiscal year.

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

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

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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 87 & 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

\$ 8,538,380

Budgetary adjustments to financial reporting basis

Pension delayed accounting election adjustments:

Current year pension payments recorded as deferral	19,347,900
Prior year pension deferral accounted for in current year	(8,927,171)
Administrative fee prepaid adjustment	836,825

Debt service	114,864,801
BC Note obligation	436,916
Regional system lease	6,690,241
GASB 87 & GASB 96 adjustments	350,345
Water Residential Assistance Program (WRAP)	615,371
Improvement & Extension fund transfers	23,424,000

Nonbudgeted financial reporting adjustments

Depreciation and amortization	(158,453,333)
Amortization - debt related	(2,292,419)
Improvement & Extension operating expenses	(4,536,959)
Gain (loss) on disposal of capital assets	(332,197)
Interest on DWSD note receivable	144,918
Investment earnings unrealized gain (loss)	(4,865,357)
Capital contribution	<u>6,991,039</u>

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

\$ 2,833,300

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

SEWER 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 Sewer I&E Fund. Overall, the Sewer I&E Fund experienced a decrease of \$20.1 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 \$20.1 million.

	Adopted Budget	Amended Budget	Actual [3]	Variance Over (Under) Amended Budget
Inflows				
Revenue transfers	\$ 34,616,900	\$ 23,424,000	\$ 23,424,000	\$ -
Receipt of DWSD shortfall receivable payments	406,400	144,900	8,441,496	8,296,596
Investment earnings [1]	-	1,004,900	855,242	(149,658)
Total Inflows	<u>35,023,300</u>	<u>24,573,800</u>	<u>32,720,738</u>	<u>8,146,938</u>
Outflows				
Capital spending other (net operating expenses)	-	722,200	4,536,959	3,814,759
Capital outlay	15,965,100	9,137,700	8,080,463	(1,057,237)
GASB 96 transfer to operating fund [2]	-	-	560,971	560,971
Investment earnings transfer out [1]	-	1,004,900	876,480	(128,420)
Revenue financed capital - transfer to Sewer Construction Fund	47,546,000	63,279,200	48,145,694	(15,133,506)
Total Outflows	<u>63,511,100</u>	<u>74,144,000</u>	<u>62,200,567</u>	<u>(11,943,433)</u>
Net Increase (Decrease) - Budget Basis	<u>\$ (28,487,800)</u>	<u>\$ (49,570,200)</u>	(29,479,829)	<u>\$ 20,090,371</u>
Non-budgeted inflows (outflows)				
Transfer for FY 2020 DWSD shortfall [4]			10,817,815	
Unrealized net decrease in fair value of investments			(1,732,451)	
Other transfers in			281,498	
Combining Schedule Sewer I&E Fund Change in Net Position [3]			<u>\$ (20,112,967)</u>	

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

[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 - Sewage Disposal Fund. Information in this schedule is based on activity in the Sewer Improvement and Extension Fund.

[4] Pursuant to the 2018 Memorandum of Understanding dated June 27, 2018, DWSD budget shortfalls not cured by the end of the following year in which they arise shall be repaid in installments plus a surcharge. DWSD experienced a \$10.2 million budget shortfall in FY 2020 that was cured in FY 2021. Those amounts were transferred to the I&E Fund in FY 2022.

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

SEWER 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 Sewer Construction Fund. The Sewer Construction Fund had a decrease of \$7.6 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 \$7.6 million.

	<u>Adopted Budget</u>	<u>Amended Budget</u>	<u>Actual [2]</u>	<u>Variance Over (Under) Amended Budget</u>
Inflows				
Transfers from Sewer Improvement & Extension Fund	\$ 47,546,000	\$ 63,279,200	\$ 48,145,694	\$ (15,133,506)
State revolving loans	31,992,000	10,000,000	9,215,214	(784,786)
Transfer from operations fund-proceeds from sale of assets	-	-	200,000	200,000
Investment earnings [1]	-	-	26,444	26,444
Total Inflows	<u>79,538,000</u>	<u>73,279,200</u>	<u>57,587,352</u>	<u>(15,691,848)</u>
Outflows				
Investment earnings transfer out [1]	-	-	26,475	26,475
Capital projects	<u>79,538,000</u>	<u>73,279,200</u>	<u>65,148,518</u>	<u>(8,130,682)</u>
Total Outflows	<u>79,538,000</u>	<u>73,279,200</u>	<u>65,174,993</u>	<u>(8,104,207)</u>
Net Increase (Decrease) - Budget Basis	<u>\$ -</u>	<u>\$ -</u>	<u>(7,587,641)</u>	<u>\$ (7,587,641)</u>
Non-budgeted inflows (outflows)				
Unrealized net increase in fair value of investments			<u>481</u>	
Combining Schedule Sewage Disposal Construction Fund Change in Net Position [2]			<u>\$ (7,587,160)</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. 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 - Sewage Disposal Fund. Information in this schedule is based on activity in the Sewer Construction Fund.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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	\$ 294,173,630	\$ 323,972,718	\$ 287,464,920	\$ 236,057,128	\$ 208,563,268	\$ 205,179,312	\$ 188,063,375
Operating Expense							
Operating expense	\$ 345,372,010	\$ 328,983,415	\$ 329,870,427	\$ 342,585,175	\$ 363,629,987	\$ 336,946,731	\$ 170,401,050
Less: depreciation	(158,013,629)	(150,772,065)	(152,920,967)	(168,544,370)	(187,250,583)	(185,628,465)	(86,021,029)
Less: amortization of intangible asset	<u>(439,704)</u>	<u>(109,926)</u>	-	-	-	-	-
Net Operating Expense	<u>\$ 186,918,677</u>	<u>\$ 178,101,424</u>	<u>\$ 176,949,460</u>	<u>\$ 174,040,805</u>	<u>\$ 176,379,404</u>	<u>\$ 151,318,266</u>	<u>\$ 84,380,021</u>
Operating Expense per Day (365 days)	<u>\$ 512,106</u>	<u>\$ 487,949</u>	<u>\$ 484,793</u>	<u>\$ 476,824</u>	<u>\$ 483,231</u>	<u>\$ 414,571</u>	<u>\$ 466,188</u>
Days Cash							
Number of days cash	<u>574</u>	<u>664</u>	<u>593</u>	<u>495</u>	<u>432</u>	<u>495</u>	<u>403</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 SEWAGE DISPOSAL 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 Sewage Disposal Fund. The following describes the three funds and the purpose of each fund.

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

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

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

Note 2 – Budget to Actual Schedules

Schedule of Operating Expenses – Budget to Actual

The schedule of operating expenses for the sewage disposal 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 Sewer Operations Fund reported in the Combining Schedule of Revenues, Expenses and Changes in Net position for the Sewage Disposal Fund. The Warehouse lease line represents the total lease payments made for the warehouse which is included in the budget as an operating lease. For financial reporting purposes the warehouse payments are treated as a reduction in the lease liability and interest expense (which is a nonoperating expense). The subscription based information technology arrangements (SBITA) payments line represents the payments made for the SBITA's which is included in the budget as a contractual service. For financial reporting purposes these costs have been treated as a prepaid subscription asset as the software is not in service as of June 30, 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 87 and 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.

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 Sewer System. The legal level of budgetary control is at this level. Administratively, the budget may be modified within these categories. Modifications to the budget beyond those established levels would be presented to the Audit Committee, and subsequently to the Board.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

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

Note 2 – Budget to Actual Schedules (cont.)

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 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 SEWAGE DISPOSAL 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 6	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 7 through 11	Debt capacity information is intended to show the Authority's debt burden and its ability to issue additional debt.	70
Demographic and Economic Schedules 12 through 13	Demographic and economic information is intended to show the socioeconomic environment within which the Authority operates.	78
Operating Information Schedules 14 through 15	Operating information is intended to show contextual information about operations and resources to provide understanding and assessing the Authority's economic condition.	80

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 SEWAGE DISPOSAL FUND

SCHEDULE OF NET POSITION - SEWAGE DISPOSAL FUND

As of June 30, 2022

	2022	2021	2020	2019	2018	2017	2016
Assets							
Current Assets							
Cash and cash equivalents	\$ 200,464,397	\$ 191,584,705	\$ 119,569,724	\$ 160,371,766	\$ 199,056,556	\$ 203,748,704	\$ 156,022,295
Restricted cash and cash equivalents	38,574,227	85,509,014	26,060,277	95,931,528	54,832,050	72,213,813	81,181,424
Restricted cash for the benefit of DWSD	9,098,348	2,919,797	-	627,919	-	-	51,648
Investments	93,709,233	132,388,013	167,895,196	75,685,362	9,506,712	1,430,608	32,041,080
Restricted investments	73,042,550	28,758,582	87,066,562	33,384,445	31,790,386	31,371,834	28,843,000
Receivables							
Billed	64,722,773	59,552,759	56,390,056	60,549,471	50,439,450	52,234,778	48,046,934
Unbilled	24,045,449	24,320,796	23,861,029	24,297,140	25,200,108	24,279,170	23,037,391
Other	996,875	489,412	95,376	221,452	3,723,036	3,157,050	92,748,989
Allowance for doubtful accounts	(42,906,498)	(39,321,754)	(36,357,891)	(34,802,168)	(32,863,001)	(30,410,232)	(98,968,630)
Due from other governments	2,208,272	1,351,111	11,459,398	179,585	24,339,106	29,461,328	66,202,143
Due from other funds	-	162,368	-	12,568	3,447,927	-	65,971
Contractual obligation receivable	15,403,674	14,637,184	14,041,327	12,089,779	11,253,800	11,262,300	5,077,675
Shortfall receivable - DWSD	-	8,296,578	18,206,431	17,542,669	9,367,355	-	-
Prepaid items and other assets	4,920,898	4,143,303	3,691,723	2,801,271	1,683,659	1,089,521	407,359
Inventories	8,366,771	7,000,631	6,370,587	5,445,981	8,471,626	8,509,454	9,984,063
Total Current Assets	492,646,969	521,792,499	498,349,795	454,338,768	400,248,770	408,348,328	444,741,342
Noncurrent Assets							
Restricted cash and cash equivalents	2,491,300	2,876,374	27,014,187	62,030,778	30,001,353	128,378,837	155,488,780
Restricted investments	31,184,328	29,882,148	29,048,921	73,903,089	143,261,763	81,177,748	62,186,734
Contractual obligation receivable	369,794,921	384,718,443	399,355,626	414,766,953	335,574,500	346,828,300	366,254,075
Shortfall receivable - DWSD	-	-	8,296,578	26,503,010	19,932,645	-	-
Prepaid lease	13,750,000	13,750,000	13,750,000	13,750,000	13,750,000	13,750,000	-
Assets not subject to depreciation or amortization	320,526,307	315,474,451	300,868,836	318,574,902	271,362,100	278,286,118	295,876,258
Capital assets being depreciated, net	2,138,777,595	2,221,472,660	2,298,917,647	2,357,018,353	2,485,098,172	2,591,023,442	2,699,891,145
Intangible assets, net	3,993,977	4,433,681	-	-	-	-	-
Prepaid insurance on debt	10,124,011	11,053,199	12,030,061	13,880,254	16,931,255	18,581,897	27,822,085
Total Noncurrent Assets	2,890,642,439	2,983,660,956	3,089,281,856	3,280,427,339	3,315,911,788	3,458,026,342	3,607,519,077
Total Assets	3,383,289,408	3,505,453,455	3,587,631,651	3,734,766,107	3,716,160,558	3,866,374,670	4,052,260,419
Deferred Outflows of Resources							
Deferred charge on refunding	110,341,248	118,709,227	127,077,205	159,370,167	186,544,140	198,351,942	212,147,508
Deferred pension amounts	19,347,900	39,574,610	27,368,710	20,347,789	33,369,917	38,462,972	24,376,481
Total Deferred Outflows of Resources	129,689,148	158,283,837	154,445,915	179,717,956	219,914,057	236,814,914	236,523,989

	2022	2021	2020	2019	2018	2017	2016
Liabilities							
Current Liabilities							
Accounts and contracts payable	\$ 37,488,263	\$ 32,182,085	\$ 30,838,950	\$ 38,004,322	\$ 34,077,602	\$ 27,546,558	\$ 36,152,087
Accrued salaries, wages and benefits	1,013,356	1,136,565	-	-	-	-	-
Accrued liabilities	9,743,206	4,615,255	-	627,919	-	898,800	674,458
Due to other governments	3,750,000	3,750,000	1,750,000	-	47,539	35,848,573	24,225,013
Due to other funds	2,328,086	2,786,344	2,134,191	2,876,954	330,293	-	-
Interest payable	34,566,553	35,189,612	27,565,045	44,130,602	41,108,994	41,011,198	43,912,888
Current portion of:							
Revenue bonds and loans	87,312,545	87,409,283	88,939,460	88,357,662	61,186,207	65,920,307	60,902,189
BC Note obligation	458,756	436,911	416,105	396,291	377,419	359,448	342,331
Regional system lease	6,950,466	6,667,073	6,395,235	6,134,481	5,884,359	5,644,435	5,414,293
Other liabilities	3,435,863	2,743,360	1,049,422	813,439	1,051,478	4,531,322	1,114,045
Total Current Liabilities	<u>187,047,094</u>	<u>176,916,488</u>	<u>159,088,408</u>	<u>181,341,670</u>	<u>144,063,891</u>	<u>181,760,641</u>	<u>172,737,304</u>
Noncurrent Liabilities							
Revenue bonds and loans	2,790,722,856	2,912,505,035	3,015,182,999	3,163,394,353	3,168,566,028	3,236,016,730	3,387,291,190
BC Note obligation	36,750,113	37,208,869	37,645,781	38,061,886	38,458,178	38,835,597	39,195,045
Regional system lease	489,005,809	495,956,275	502,623,348	509,018,588	515,153,064	521,037,424	526,681,859
Other liabilities	16,989,290	17,376,059	13,917,291	13,791,681	13,503,540	6,170,701	36,217,981
Net pension liability	41,841,847	92,577,019	85,266,515	84,670,705	114,810,555	124,506,503	109,208,359
Total Noncurrent Liabilities	<u>3,375,309,915</u>	<u>3,555,623,257</u>	<u>3,654,635,934</u>	<u>3,808,937,213</u>	<u>3,850,491,365</u>	<u>3,926,566,955</u>	<u>4,098,594,434</u>
Total Liabilities	<u>3,562,357,009</u>	<u>3,732,539,745</u>	<u>3,813,724,342</u>	<u>3,990,278,883</u>	<u>3,994,555,256</u>	<u>4,108,327,596</u>	<u>4,271,331,738</u>
Deferred Inflows of Resources							
Deferred gain on refunding	40,566,648	44,046,097	47,525,546	47,982,938	46,654,836	49,257,784	-
Deferred amounts for swap terminations	457	18,041	35,625	165,223	189,808	214,393	238,978
Deferred capital contribution	-	-	5,960,000	-	-	-	-
Deferred pension amounts	20,087,733	-	-	-	12,994,118	11,750,654	27,805,977
Total Deferred Inflows of Resources	<u>60,654,838</u>	<u>44,064,138</u>	<u>53,521,171</u>	<u>48,148,161</u>	<u>59,838,762</u>	<u>61,222,831</u>	<u>28,044,955</u>
Net Position (Deficit) [1]							
Net investment in capital assets	(85,551,623)	(110,660,463)	(113,359,960)	(62,382,494)	34,412,661	142,699,532	220,388,158
Restricted for debt service	91,754,608	90,855,751	85,803,313	117,246,259	101,996,536	107,931,677	108,793,840
Restricted for payment assistance program	7,045,715	6,428,815	5,233,710	4,631,494	3,308,896	3,117,744	2,052,550
Unrestricted	(123,281,991)	(99,490,694)	(102,845,010)	(183,438,240)	(258,037,496)	(320,109,796)	(341,826,833)
TOTAL NET POSITION (DEFICIT)	<u>\$ (110,033,291)</u>	<u>\$ (112,866,591)</u>	<u>\$ (125,167,947)</u>	<u>\$ (123,942,981)</u>	<u>\$ (118,319,403)</u>	<u>\$ (66,360,843)</u>	<u>\$ (10,592,285)</u>

[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 SEWAGE DISPOSAL FUND

CHANGES IN NET POSITION - SEWAGE DISPOSAL FUND

	2022	2021	2020	2019	2018	2017	2016*
Operating Revenues							
Wholesale customer charges	\$ 268,813,369	\$ 267,567,816	\$ 266,003,286	\$ 272,772,460	\$ 268,978,831	\$ 263,311,745	\$ 121,106,353
Local system charges	188,662,200	187,959,700	185,807,300	181,159,300	178,969,200	187,304,100	95,826,900
Industrial waste charges	8,300,278	8,004,939	7,854,593	9,106,274	14,334,979	14,381,106	6,910,192
Pollutant surcharges	5,181,816	6,719,964	6,448,508	5,932,550	6,908,404	5,206,294	2,423,910
Bad debt recovery	-	-	-	-	-	35,065,030	-
Other revenues	429,491	501,121	521,957	506,323	4,391,145	538,807	4,197,614
Total Operating Revenues	471,387,154	470,753,540	466,635,644	469,476,907	473,582,559	505,807,082	230,464,969
Operating Expenses							
Personnel	62,160,768	63,055,636	60,320,195	56,503,053	53,680,162	47,894,911	13,289,741
Contractual services	63,410,109	62,913,214	63,350,953	58,660,680	64,082,761	55,878,440	13,875,756
Utilities	30,930,459	23,921,428	23,432,981	25,147,527	26,823,299	27,191,866	12,668,942
Chemicals	12,593,379	7,953,995	8,672,406	8,187,033	8,073,045	9,424,428	4,006,941
Supplies and other expenses	19,911,985	21,938,081	23,393,081	25,323,636	24,982,773	12,180,128	16,462,711
Capital adjustment	-	-	-	2,258,351	-	-	-
Capital program allocation	(1,013,677)	(1,068,749)	(1,183,398)	(1,325,842)	(969,671)	(1,150,316)	-
Intergovernmental reimbursements	(1,074,346)	(612,181)	(1,036,758)	(713,633)	(292,965)	(101,191)	-
Centralized services	-	-	-	-	-	-	16,733,431
Administrative services	-	-	-	-	-	-	7,342,499
Depreciation	158,013,629	150,772,065	152,920,967	168,544,370	187,250,583	185,628,465	86,021,029
Amortization of intangible assets	439,704	109,926	-	-	-	-	-
Total Operating Expenses	345,372,010	328,983,415	329,870,427	342,585,175	363,629,987	336,946,731	170,401,050
Operating Income	126,015,144	141,770,125	136,765,217	126,891,732	109,952,572	168,860,351	60,063,919
Nonoperating Revenues (Expenses)							
Earnings (loss) on investments	(3,022,882)	490,706	11,671,932	11,763,401	5,266,255	2,209,872	1,089,367
Interest on shortfall and obligations receivable	17,157,558	18,247,607	19,489,018	18,856,322	15,505,300	17,062,678	8,831,250
Interest expense	(131,110,125)	(135,227,647)	(155,410,235)	(159,893,300)	(161,052,102)	(159,157,152)	(82,489,347)
Amortization of debt related items and cost of issuance	(2,292,419)	(3,022,639)	(3,956,009)	(6,776,707)	(5,153,300)	(17,340,200)	(363,167)
Legacy pension expense	(8,927,171)	(14,452,504)	(12,922,789)	10,763,940	(15,988,471)	(4,504,230)	-
WRAP (Water Residential Assistance Program)	(1,742,929)	(924,247)	(1,921,938)	(1,168,664)	(2,248,980)	(1,243,006)	-
Other	(234,915)	(540,045)	(900,162)	466,898	1,760,166	(498,896)	275,693
Sewer lookback - MOU adjustment	-	-	-	(6,527,200)	-	-	-
Total Nonoperating Expenses	(130,172,883)	(135,428,769)	(143,950,183)	(132,515,310)	(161,911,132)	(163,470,934)	(72,656,204)
Income (loss) before contributions and special item	(4,157,739)	6,341,356	(7,184,966)	(5,623,578)	(51,958,560)	5,389,417	(12,592,285)
Capital Contributions	6,991,039	5,960,000	5,960,000	-	-	320,707	2,000,000
Special Item - MOU with DWSD	-	-	-	-	-	(61,478,682)	-
Change in net position	2,833,300	12,301,356	(1,224,966)	(5,623,578)	(51,958,560)	(55,768,558)	(10,592,285)
NET POSITION (DEFICIT), Beginning of Year	(112,866,591)	(125,168,947)	(123,943,981)	(118,319,403)	(66,360,843)	(10,592,285)	-
NET POSITION (DEFICIT), END OF YEAR	\$ (110,033,291)	\$ (112,867,591)	\$ (125,168,947)	\$ (123,942,981)	\$ (118,319,403)	\$ (66,360,843)	\$ (10,592,285)

* GLWA began operations on January 1, 2016. The data for FY 2016 relates to six months of activity through June 30, 2016. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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]	\$481,372,100	\$475,429,200	\$486,751,300	\$480,605,300	\$470,156,000	\$465,500,100	\$464,078,500	\$446,229,300
Percent change in budgeted revenue requirement	1.3%	-2.3%	1.3%	2.2%	1.0%	0.3%	4.0%	4.0%
Average annual charge adjustment [2]								
Total regional system	2.4%	-0.6%	2.0%	0.8%	0.1%	-0.7%	8.3%	n/a [6]
Suburban wholesale	3.2%	-0.1%	1.7%	-0.1%	1.3%	1.8%	4.9%	-1.1%
Local system charge [3]	1.2%	-0.7%	2.3%	2.5%	1.2%	-4.2%	13.9%	n/a [6]
Number of wholesale sewer customers [4]	18	18	18	18	18	18	18	21

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

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

[3] Represents the annual change in the local system charges to the Detroit customer class before the annual credit of \$5.5 million. 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.

[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.

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 SEWAGE DISPOSAL FUND

SEWAGE DISPOSAL FUND OPERATING REVENUES/ LARGEST SEWER CUSTOMERS

	2022	2021	2020	2019	2018	2017	2016*
Operating Revenues							
Suburban wholesale charges [1]	\$ 268,813,369	\$ 267,567,816	\$ 266,003,286	\$ 272,772,460	\$ 268,978,831	\$ 263,311,745	\$ 121,106,353
Local system charges	188,662,200	187,959,700	185,807,300	181,159,300	178,969,200	187,304,100	95,826,900
Industrial waste and surcharges	13,482,094	14,724,903	14,303,101	15,038,824	21,243,383	19,587,400	9,334,102
Bad debt recovery	-	-	-	-	-	35,065,030	-
Other revenue	429,491	501,121	521,957	506,323	4,391,145	538,807	4,197,614
Total Operating Revenues	\$ 471,387,154	\$ 470,753,540	\$ 466,635,644	\$ 469,476,907	\$ 473,582,559	\$ 505,807,082	\$ 230,464,969
Suburban wholesale charges % of total operating revenue	57.03%	56.84%	57.00%	58.10%	56.80%	52.06%	52.55%
Local system charges % of total operating revenue	40.02%	39.93%	39.82%	38.59%	37.79%	37.03%	41.58%
Ten Largest Suburban Wholesale Member Partners							
Oakland Macomb Interceptor Drainage District	\$ 70,683,993	\$ 70,355,029	\$ 69,870,786	\$ 77,533,200	\$ 72,816,000	\$ 69,627,600	\$ 34,541,400
Wayne County - Rouge Valley	55,267,200	54,536,400	54,162,000	53,761,200	55,022,400	55,486,800	25,901,400
Oakland County-George W Kuhn Drainage District	45,828,000	45,558,000	45,264,000	44,972,400	45,751,200	45,682,800	21,410,400
Evergreen Farmington	35,766,000	35,084,400	34,839,600	34,578,000	33,733,200	32,179,200	15,094,200
South Macomb Sanitation District	24,772,800	25,000,800	24,837,600	24,672,000	24,637,200	24,120,000	11,501,400
Dearborn	20,058,000	19,628,400	19,502,400	19,372,800	19,628,400	19,603,200	8,049,000
Highland Park	5,356,800	5,708,400	5,670,000	5,614,800	5,642,400	5,818,800	2,808,600
Hamtramck	3,993,600	4,019,400	3,994,800	3,962,400	3,958,800	4,086,000	1,966,800
Grosse Pointe Farms	2,715,600	2,769,000	2,750,400	2,727,600	2,696,400	2,667,600	1,243,800
Grosse Pointe Park	1,882,800	1,824,000	1,812,000	1,801,200	1,740,000	1,626,000	746,400
Total Revenue Ten Largest Suburban Wholesale Member Partners	\$ 266,324,793	\$ 264,483,829	\$ 262,703,586	\$ 268,995,600	\$ 265,626,000	\$ 260,898,000	\$ 123,263,400
Ten largest suburban wholesale member partners % of total operating revenues	56.50%	56.18%	56.30%	57.30%	56.09%	51.58%	53.48%

[1] Net of bad debt expense.

* GLWA began operations on January 1, 2016. The data for 2016 is for the six months of activity through June 30, 2016. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND**SCHEDULE OF SEWAGE DISPOSAL SYSTEM CHARGES***

<u>Community Name</u>	<u>Fixed Monthly Charge</u>
Oakland Macomb Interceptor District (OMID)	\$ 5,871,700
Rouge Valley	4,605,600
Oakland County - George W. Kuhn (GWK)	3,819,000
Evergreen Farmington	2,980,500
SE Macomb Sanitary District	2,064,400
Dearborn	1,671,500
Grosse Pointe Farms	226,300
Grosse Pointe Park	156,900
Melvindale	129,500
Farmington	98,700
Center Line	85,800
Allen Park	69,800
Highland Park	446,400
Hamtramck	332,800
Grosse Pointe	74,100
Harper Woods	18,000
Redford Township	22,200
Wayne County #3	4,300

Annual Detroit Wholesale Revenue Requirement \$188,662,200

* Wholesale charges went into effect July 1, 2021

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND
INDUSTRIAL WASTE CONTROL CHARGES AND POLLUTANT SURCHARGES
EFFECTIVE JULY 1, 2021

Industrial Waste Control Charges			
Meter size - inches:	Admin Only Charge (1)		Monthly Charge (2)
5/8	\$	0.89	\$ 3.54
3/4	\$	1.33	\$ 5.31
1	\$	2.21	\$ 8.85
1 1/2	\$	4.87	\$ 19.47
2	\$	7.08	\$ 28.32
3	\$	12.83	\$ 51.33
4	\$	17.70	\$ 70.80
6	\$	26.55	\$ 106.20
8	\$	44.25	\$ 177.00
10	\$	61.95	\$ 247.80
12	\$	70.80	\$ 283.20
14	\$	88.50	\$ 354.00
16	\$	106.20	\$ 424.80
18	\$	123.90	\$ 495.60
20	\$	141.60	\$ 566.40
24	\$	159.30	\$ 637.20
30	\$	177.00	\$ 708.00
36	\$	194.70	\$ 778.80
48	\$	212.40	\$ 849.60

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

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

Pollutant Surcharges			
Pollutant	Charge per Pound		
Biochemical Oxygen Demand (BOD)	for concentrations > 275 mg/l	\$	0.347
Total Suspended Solids (TSS)	for concentrations > 350 mg/l	\$	0.476
Phosphorus (P)	for concentrations > 12 mg/l	\$	6.368
Fats, Oil and Grease (FOG)	for concentrations > 100 mg/l	\$	0.111
Septage Disposal Fee	per 500 gallons of disposal	\$	36.00

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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]	\$ 2,498,387,185	\$ 2,577,642,399	\$ 2,643,788,368	\$ 2,764,196,915	\$ 2,739,090,653	\$ 2,797,168,264	\$ 2,922,089,599
Capital appreciation bonds [1]	-	5,504,069	10,667,560	13,377,972	14,984,042	19,501,737	19,668,138
State revolving loans	<u>379,648,216</u>	<u>416,767,850</u>	<u>449,666,531</u>	<u>474,177,128</u>	<u>475,677,540</u>	<u>485,267,036</u>	<u>506,435,742</u>
Total Sewage Disposal Fund	<u>\$ 2,878,035,401</u>	<u>\$ 2,999,914,318</u>	<u>\$ 3,104,122,459</u>	<u>\$ 3,251,752,015</u>	<u>\$ 3,229,752,235</u>	<u>\$ 3,301,937,037</u>	<u>\$ 3,448,193,479</u>
Total taxable value [2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total population served [3]:	2,800,000	2,800,000	2,800,000	2,800,000	2,800,000	2,800,000	2,800,000
Total debt per capita:	\$ 1,028	\$ 1,071	\$ 1,109	\$ 1,161	\$ 1,153	\$ 1,179	\$ 1,231
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:	1.73%	1.82%	1.90%	2.14%	2.19%	2.32%	2.50%

[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 SEWAGE DISPOSAL FUND

DEBT BY LIEN
As of June 30, 2022

Continued on Next Page

	Original Principal Amount [1]	Outstanding as of June 30, 2022
Sewage Disposal System Revenue Bonds		
Senior Lien Bonds		
Sewage Disposal System Revenue Bonds (Senior), Series 1999 SRF-2	\$ 46,000,000	\$ 2,885,000
Sewage Disposal System Senior Lien Revenue Bonds, Series 2003B	150,000,000	100,000
Sewage Disposal System Senior Lien Revenue Refunding Bonds, Series 2004A	101,435,000	12,640,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2006D	370,000,000	239,475,000
Sewage Disposal System Revenue & Revenue Refunding Senior Lien Bonds, Series 2012A	659,780,000	32,105,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2014C-3	446,170,000	381,800,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2014C-6	143,880,000	88,900,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2016B	126,105,000	126,105,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2018A	81,595,000	78,810,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2018B	131,690,000	131,690,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2018C	44,180,000	37,350,000
Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2020A	594,930,000	594,930,000
	<u>2,895,765,000</u>	<u>1,726,790,000</u>
Second Lien Bonds		
Sewage Disposal System Second Lien Revenue Bonds, Series 2001B	110,550,000	78,895,000
Sewage Disposal System Revenue Second Lien Bonds, Series 2005A	273,355,000	100,000
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2005B	40,215,000	6,695,000
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2005C	63,160,000	100,000
Sewage Disposal System Revenue Second Lien Bonds, Series 2006B	250,000,000	100,000
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2014C-7	76,715,000	50,000,000
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2015C	197,660,000	197,160,000
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2016C	295,190,000	295,190,000
Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2020B	92,525,000	87,600,000
	<u>1,399,370,000</u>	<u>715,840,000</u>

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

DEBT BY LIEN
As of June 30, 2022

Continued From Previous Page

	Original Principal Amount [1]	Outstanding as of June 30, 2022
Sewage Disposal System Revenue Bonds (concluded)		
SRF Junior Lien Bonds		
Sewage Disposal System Revenue Bonds, Series 2000 SRF-1	\$ 44,197,995	\$ 2,667,995
Sewage Disposal System Revenue Bonds, Series 2000 SRF-2	64,401,066	4,016,066
Sewage Disposal System Revenue Bonds, Series 2001 SRF-1	82,200,000	15,095,000
Sewage Disposal System Revenue Bonds, Series 2001 SRF-2	59,850,000	10,990,000
Sewage Disposal System Revenue Bonds, Series 2002 SRF-1	18,985,000	1,190,000
Sewage Disposal System Revenue Bonds, Series 2002 SRF-2	1,545,369	95,369
Sewage Disposal System Revenue Bonds, Series 2002 SRF-3	31,549,466	5,329,466
Sewage Disposal System Revenue Bonds, Series 2003 SRF-1	48,520,000	11,735,000
Sewage Disposal System Revenue Bonds, Series 2003 SRF-2	25,055,370	4,565,370
Sewage Disposal System Revenue Bonds, Series 2004 SRF-1	2,910,000	520,000
Sewage Disposal System Revenue Bonds, Series 2004 SRF-2	18,353,459	3,263,459
Sewage Disposal System Revenue Bonds, Series 2004 SRF-3	12,722,575	2,252,575
Sewage Disposal System Revenue Bonds, Series 2007 SRF-1	167,540,598	73,570,598
Sewage Disposal System Revenue Bonds, Series 2009 SRF-1	13,970,062	6,215,062
Sewage Disposal System Revenue Bonds, Series 2010 SRF-1	4,214,763	2,120,763
Sewage Disposal System Revenue Bonds, Series 2012 SRF-1	14,950,000	10,535,000
Sewage Disposal System Revenue Bonds, Series 2015A SRF	79,500,000	59,625,000
Sewage Disposal System Revenue Bonds, Series 2015B SRF	27,175,304	20,005,304
Sewage Disposal System Revenue Bonds, Series 2015D SRF	15,321,478	11,061,478
Sewage Disposal System Revenue Bonds, Series 2016 SAW-1	10,000,000	8,800,000
Sewage Disposal System Revenue Bonds, Series 2016 SRF-1	15,463,628	12,733,628
Sewage Disposal System Revenue Bonds, Series 2016 SRF-2	48,315,683	42,145,683
Sewage Disposal System Revenue Bonds, Series 2017 SRF-1	33,566,682	29,746,682
Sewage Disposal System Revenue Bonds, Series 2018 SRF-2	17,510,000	17,510,000
Sewage Disposal System Revenue Bonds, Series 2020 SRF-1	28,350,000	16,456,478
Sewage Disposal System Revenue Bonds, Series 2020 SRF-2	3,232,000	480,152
Sewage Disposal System Revenue Bonds, Series 2021 SRF-1	12,940,000	4,037,088
Sewage Disposal System Revenue Bonds, Series 2021 SRF-2	6,881,250	-
Sewage Disposal System Revenue Bonds, Series 2022 SRF-1	34,195,000	-
	<u>943,416,748</u>	<u>376,763,216</u>
TOTAL SEWAGE DISPOSAL SYSTEM REVENUE BONDS	<u>\$ 5,238,551,748</u>	<u>\$ 2,819,393,216</u>

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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]	\$26,105	\$53,602	\$79,707	\$12,445	\$27,572	\$40,017	\$45,051	\$8,175	\$53,226	\$172,950
2024	80,260	63,536	143,796	3,215	33,438	36,653	40,360	7,189	47,549	227,998
2025	82,615	59,915	142,530	16,035	32,924	48,959	41,266	6,271	47,537	239,026
2026	84,900	56,158	141,058	16,995	32,040	49,035	27,373	5,472	32,845	222,938
2027	90,905	52,369	143,274	21,040	31,028	52,068	24,805	4,917	29,722	225,064
2028	95,135	48,807	143,942	25,795	29,793	55,588	25,250	4,388	29,638	229,168
2029	102,270	44,955	147,225	26,640	28,415	55,055	25,765	3,850	29,615	231,896
2030	114,250	40,618	154,868	19,860	27,183	47,043	26,241	3,301	29,542	231,452
2031	108,915	36,345	145,260	32,550	25,836	58,386	15,528	2,827	18,354	222,001
2032	112,765	32,445	145,210	34,175	24,168	58,343	15,465	2,448	17,913	221,466
2033	130,570	28,296	158,866	21,910	22,766	44,676	15,865	2,071	17,936	221,479
2034	132,420	22,774	155,194	25,915	21,594	47,509	16,280	1,683	17,963	220,667
2035	53,595	18,318	71,913	112,440	18,464	130,904	16,740	1,286	18,026	220,843
2036	11,445	16,909	28,354	162,055	12,296	174,351	15,478	895	16,374	219,078
2037	11,745	16,544	28,289	169,445	4,593	174,038	7,280	557	7,837	210,164
2038	110,565	14,637	125,202	1,690	522	2,212	7,394	379	7,773	135,187
2039	114,005	11,146	125,151	1,745	460	2,205	6,542	198	6,740	134,097
2040	117,550	7,545	125,095	1,810	396	2,206	990	72	1,062	128,363
2041	23,745	5,275	29,020	1,875	330	2,205	1,010	52	1,062	32,286
2042	24,635	4,374	29,009	1,945	261	2,206	1,030	31	1,061	32,276
2043	25,545	3,438	28,983	2,015	189	2,204	1,050	11	1,061	32,248
2044	26,500	2,468	28,968	2,085	115	2,200	-	-	-	31,168
2045	27,275	1,463	28,738	2,160	39	2,199	-	-	-	30,937
2046	4,425	843	5,268	-	-	-	-	-	-	5,268
2047	4,645	616	5,261	-	-	-	-	-	-	5,261
2048	4,880	378	5,258	-	-	-	-	-	-	5,258
2049	5,125	128	5,253	-	-	-	-	-	-	5,253
Total	\$1,726,790	\$643,903	\$2,370,693	\$715,840	\$374,422	\$1,090,262	\$376,763	\$56,074	\$432,837	\$3,893,792

[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 SEWAGE DISPOSAL FUND

DEBT CREDIT RATING HISTORY As of June 30, 2022

Debt Type	2022	2021	2020	2019	2018	2017	2016
Standard's & Poor's							
Senior Lien	AA-	AA-	AA-	A+	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 SEWAGE DISPOSAL 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 SEWAGE DISPOSAL FUND

DEBT SERVICE COVERAGE - GAAP BASIS - SEWAGE DISPOSAL SYSTEM
As of June 30, 2022

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

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

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

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

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

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

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

[7] At the time of the issuance of the GLWA financial report, DWSD's audited financial report had not been released. Amounts used were provided by DWSD's management of the preliminary financial results for the year ended June 30, 2022.

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL FUND

DEBT SERVICE COVERAGE - RATE COVENANT BASIS - SEWAGE DISPOSAL SYSTEM

As of June 30, 2022

	2022	2021	2020 [4]	2019	2018	2017	2016 [1]
GLWA Receipts							
Wholesale System Receipts	\$ 280,048,244	\$ 286,580,811	\$ 291,884,274	\$ 281,485,522	\$ 294,503,834	\$ 281,528,551	
DWSD Local system charges	188,662,200	187,959,700	185,807,300	181,159,300	178,969,200	187,304,100	
Investment Earnings	<u>1,680,667</u>	<u>2,739,425</u>	<u>5,372,063</u>	<u>5,098,922</u>	<u>2,796,727</u>	<u>372,505</u>	
Total GLWA Receipts	470,391,111	477,279,936	483,063,637	467,743,744	476,269,761	469,205,156	
DWSD Local System Receipts	<u>102,618,696</u>	<u>120,251,068</u>	<u>78,882,259</u>	<u>82,349,510</u>	<u>60,314,827</u>	<u>43,553,820</u>	
Total Receipts	<u>573,009,807</u>	<u>597,531,004</u>	<u>561,945,896</u>	<u>550,093,254</u>	<u>536,584,588</u>	<u>512,758,976</u>	
Operations and Maintenance Transfers							
GLWA Regional system operations [2]	191,908,600	165,588,970	176,416,149	171,899,072	172,614,312	172,965,094	
DWSD Local System operations	61,301,000	69,915,700	55,243,500	56,767,920	60,517,992	41,535,600	
Legacy Pension Regional System [3]	10,824,000	10,824,000	10,824,000	10,824,000	10,824,000	10,824,000	
Legacy Pension DWSD Local System [3]	<u>2,856,000</u>	<u>2,856,000</u>	<u>2,856,000</u>	<u>2,856,000</u>	<u>2,856,000</u>	<u>2,856,000</u>	
Total Operations and Maintenance Transfers	<u>266,889,600</u>	<u>249,184,670</u>	<u>245,339,649</u>	<u>242,346,992</u>	<u>246,812,304</u>	<u>228,180,694</u>	
Pledged revenue	<u>\$ 306,120,207</u>	<u>\$ 348,346,334</u>	<u>\$ 316,606,247</u>	<u>\$ 307,746,262</u>	<u>\$ 289,772,284</u>	<u>\$ 284,578,282</u>	
Principal and interest funding requirement [4]:							
Senior lien bonds	\$ 130,404,294	\$ 119,217,128	\$ 147,310,565	\$ 145,795,507	\$ 141,718,836	\$ 140,854,010	
Second lien bonds	<u>51,893,038</u>	<u>57,778,951</u>	<u>45,878,850</u>	<u>43,922,600</u>	<u>43,990,100</u>	<u>47,918,639</u>	
Total senior and second lien bonds	182,297,332	176,996,079	193,189,415	189,718,107	185,708,936	188,772,649	
Junior lien bonds	<u>53,550,614</u>	<u>53,166,797</u>	<u>52,593,843</u>	<u>49,454,156</u>	<u>46,571,896</u>	<u>45,782,165</u>	
Total all bonds	<u>\$ 235,847,946</u>	<u>\$ 230,162,876</u>	<u>\$ 245,783,258</u>	<u>\$ 239,172,263</u>	<u>\$ 232,280,832</u>	<u>\$ 234,554,814</u>	
Rate covenant basis debt service coverage							
Senior lien bonds	2.35	2.92	2.15	2.11	2.04	2.02	
Senior and second lien bonds	1.68	1.97	1.64	1.62	1.56	1.51	
All bonds, including SRF junior lien	1.30	1.51	1.29	1.29	1.25	1.21	

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

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

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

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

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

GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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	2,800,000	4.6%	\$ 59,590 (4)	\$ 235,847,946	\$ 84.23	0.14%
2021	2,800,000	6.2%	58,971 (4)	230,162,876	82.20	0.14%
2020	2,800,000	11.5%	58,356	245,783,258	87.78	0.15%
2019	2,800,000	4.3%	54,172	239,172,263	85.42	0.16%
2018	2,800,000	4.3%	52,572	232,280,832	82.96	0.16%
2017	2,800,000	4.6%	50,863	234,554,814	83.77	0.16%
2016 *	2,800,000	5.3%	49,179	228,570,571	81.63	0.17%
2015 *	2,807,000	5.9%	47,799	232,612,800	82.87	0.17%
2014 *	2,807,000	8.1%	44,966	229,611,100	81.80	0.18%
2013 *	2,807,000	9.7%	42,725	225,222,900	80.24	0.19%

(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 SEWAGE DISPOSAL 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 SEWAGE DISPOSAL FUND

WASTEWATER VOLUMES (Mcf)

Fiscal Year	Wastewater Influent [1]	Customer Wastewater Volume [2]		"System" Volume [3]	
		Metered Customers	Unmetered Customers [3]		
2022	*	36,008,500	15,496,000	11,451,400	9,061,100
2021		27,543,700	11,773,200	8,929,500	6,841,000
2020		30,856,000	13,812,000	9,633,400	7,410,600
2019		34,080,800	14,658,300	10,913,300	8,509,200
2018		32,139,200	13,587,800	10,487,000	8,064,400
2017		33,623,600	14,141,100	10,788,000	8,694,500
2016	**	29,336,600	12,802,100	11,288,400	5,246,100

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

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

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

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

* Data is preliminary

** GLWA assumed operations on January 1, 2016. Data for 2016 includes six months of operation under City of Detroit Water and Sewerage Department (DWSD) and six months of operation under GLWA.

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

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GREAT LAKES WATER AUTHORITY SEWAGE DISPOSAL 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 - Sewer							
Water Resource Recovery Facility	1	1	1	1	1	1	1
Major Interceptors	3	3	3	3	3	3	3
Pump Stations [1]	9	9	9	9	9	9	9
Combined Sewer Overflow Facilities:							
Retention Treatment Basins	5	5	5	5	5	5	5
Flow-through Type Facilities	3	3	3	3	3	3	3
Miles of Trunk Sewers and Interceptors	195	195	195	195	181	181	181
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	948	985	1,009	1,024	968	881	782

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

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

