



Audit Committee Meeting
Friday, February 24, 2023 at 7:30 a.m.
www.glwater.org

[Join Zoom Meeting](#)

Meeting ID: **892 1187 7255** Passcode: **314767**

US Toll-free: **888 788 0099** or **877 853 5247**

AGENDA

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
 - A. Minutes of February 13, 2023 (Page 1)
5. PUBLIC PARTICIPATION
6. OLD BUSINESS
7. NEW BUSINESS
 - A. *Action Item:* 2nd Quarter Budget Amendments 2023-067 (Page 5)
 - B. *Action Item:* Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Sewer Disposal System Revenue Bonds in an Amount Not to Exceed \$105,000,000 (Ordinance 2023-02) 2023-065 (Page 47)
8. REPORTS
 - A. CFO Report (verbal update)
 - B. Monthly Financial Report for October 2022 (Page 72)
 - C. Monthly Financial Report for November 2022 (Page 73)
 - D. Business Inclusion and Diversity Program Update (Page 74)
 - E. Charges Outreach & Modeling Update (Page 78)
 - F. Affordability & Assistance Update (Page 81)
 - G. Gifts, Grants & Other Resources Report (Page 83)
 - H. Quarterly Investment Report (Page 95)
9. COMMUNICATIONS
 - A. *The Procurement Pipeline* for February 2023 (Page 129)
10. LOOK AHEAD
 - A. Next Audit Committee Meeting: March 24, 2023, at 8:00 a.m.
11. OTHER MATTERS
12. ADJOURNMENT



Great Lakes Water Authority

735 Randolph Street
Detroit, Michigan 48226
glwater.legistar.com

Meeting Minutes - Draft

Audit Committee

Monday, February 13, 2023

8:00 AM

Zoom Telephonic Meeting

**Zoom Telephonic Special Meeting
Rescheduled from Feb 8, 2023**

Join Zoom Meeting:

<https://glwater.zoom.us/j/87036782226?pwd=dC9TT3hZdittSXIDTjdhcXBQNVpWUT09>

Join By Telephone

US Toll Free:

888 788 0099; or 877 853 5247

Meeting ID: 870 3678 2226

1. Call To Order

Chairperson Baker called the meeting to order at 8:05 a.m.

2. Quorum Call

Present: 3 - Chairperson Brian Baker, Director Gary Brown, and Director Jaye Quadrozzi

Note: Gary Brown joined the Meeting at 8:24 a.m. (under item 6A. Old Business).

3. Approval of Agenda

Chairperson Baker requested a Motion to Approve the Agenda.

Motion By: Jaye Quadrozzi

Support By: Brian Baker

Action: Approved

The motion carried by a unanimous vote.

4. Approval of Minutes

A. [2023-019](#) Minutes of December 16, 2022

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [4A December 16, 2022 Audit Committee Meeting Minutes](#)

Chairperson Baker requested a Motion to Approve the December 16, 2022 Audit Committee Meeting Minutes.

Motion By: Jaye Quadrozzi

Support: Brian Baker

Action: Approved

The motion carried unanimously.

5. Public Comment

There were no public comments.

6. Old Business

A. [2023-013](#) Recommendation to Approve the FY 2024 & FY 2025 Biennial Budget Resolution and the Resolution for the Proposed FY 2024 Schedule of Charges

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [6A1 FY 2024 & 2025 Biennial Budget Discussion Draft](#)

[6A FY 2024_FY 2025 Biennial Budget FY 2024 Charges](#)

[FY 2024+ Proposed Budget & Charges - Audit Committee 2.13.2023](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Recommended for Approval to the Board of Directors

Agenda of February 22, 2023

The motion carried by a unanimous vote.

7. New Business

A. [2023-020](#) **Scheduling of a Public Hearing for the GLWA FY 2024 Clean Water State Revolving Fund (CWSRF) Program Project Submittal**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7A1 AC Memo - Request to Schedule FY 2024 CWSRF Public Hearing](#)
[7A3 FY2024 CWSRF Public Hearing Notice](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Recommended for Approval to the Board of Directors

Agenda of February 22, 2023

The motion carried by a unanimous vote.

8. Reports

A. [2023-046](#) **Business Inclusion and Diversity Program Update**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8A Business Inclusion and Diversity Program Update](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

B. [2023-047](#) **Charges Outreach & Modeling Update**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8B Charges Outreach and Modeling Update - 01.27.23](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

C. [2023-048](#) Affordability & Assistance Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8C Affordability and Assistance Update](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Received and Filed

The motion carried by a unanimous vote.

9. Communications**A. [2023-049](#) The Procurement Pipeline for December 2022**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [9A December 2022 Procurement Pipeline](#)

No action taken

B. [2023-050](#) The Procurement Pipeline for January 2023

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [9B January 2023 Procurement Pipeline](#)

No action taken

10. Look Ahead

The next Audit Committee Meeting is scheduled to be held Friday, February 24, 2023 at 8:00 a.m.

11. Other Matters

There were no other matters.

12. Adjournment

Chairperson Baker requested a Motion to Adjourn.

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Approved

The motion carried by a unanimous vote.

There being no further business, the meeting was adjourned at 9:18 a.m.



Financial Services Audit Committee Communication

Date: February 24, 2023

To: Great Lakes Water Authority Audit Committee

From: Lisa L. Mancini, Financial Planning & Analysis Manager

Re: FY 2023 Second Quarter Budget Amendments through December 31, 2022, and
Proposed Budget Amendment Resolution

Background: In accordance with the budget amendment policy, articles, and by-laws for the Great Lakes Water Authority, a quarterly budget amendment report is presented for review by the Audit Committee. When budget amendments are required at the appropriation level as defined by the corresponding fiscal year budget adoption resolution, the Audit Committee reviews the proposed budget amendments and forward to the Board of Directors with a recommendation.

Analysis: See attached report.

Proposed Action: The Audit Committee recommends that the Board of Directors for the Great Lakes Water Authority adopt the proposed budget resolution for the second quarter FY 2023 budget amendments.

..Title

Resolution to Approve the FY 2023 Second Quarter Budget Amendments

..Body

Agenda of: February 24, 2023

Item No.: **2023-067**

Amount: N/A

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Suzanne R. Coffey, P.E.
Chief Executive Officer
Great Lakes Water Authority

DATE: February 24, 2023

RE: **Resolution to Approve the FY 2023 Second Quarter Budget Amendments**

MOTION

Upon recommendation of Nicolette Bateson, Chief Financial Officer/Treasurer, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), approves the **FY 2023 Second Quarter Budget Amendments as presented**; and authorizes the Chief Executive Officer to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

The founding legal documents for the Great Lakes Water Authority (GLWA) provide a structure for budget preparation, adoption, and amendment. The Board of Directors adopts a biennial budget by resolution which specifies appropriation amounts which may be modified through budget amendments. To the extent that there is a proposed amendment of the budget among the appropriation categories, the matter is brought to

the Audit Committee for review and consideration of a recommendation to the Board of Directors for their consideration for approval.

JUSTIFICATION

Attached is the communication to the Audit Committee, dated February 24, 2023, which presents the proposed budget amendments for the second quarter of FY 2023. The reports included in this communication include the following.

1. Quarterly Budget Amendment Report for FY 2023 ending December 31, 2022.
2. Resolution Adopting the Budget Amendments through the Second Quarter of FY 2023.

BUDGET IMPACT

The overall budget, despite amendment, continues to be balanced.

COMMITTEE REVIEW

This matter was reviewed by the Audit Committee at its meeting on February 24, 2023. The Audit Committee [*insert action*] that the Board of Directors for the Great Lakes Water Authority adopt the proposed FY 2023 second quarter budget amendments.

SHARED SERVICES IMPACT

This item does not impact the shared services agreement between GLWA and DWSD.



Date: February 24, 2023

To: Great Lakes Water Authority Audit Committee

From: Lisa L. Mancini, Financial Planning & Analysis Manager

Re: FY 2023 Second Quarter Budget Amendments through December 31, 2022, and Proposed Budget Amendment Resolution

Background: In accordance with the budget amendment policy, articles, and by-laws for the Great Lakes Water Authority, a quarterly budget amendment report is presented for review by the Audit Committee. When budget amendments are required at the appropriation level as defined by the corresponding fiscal year budget adoption resolution, the Audit Committee will review the proposed budget amendments and forward to the Board of Directors with a recommendation.

Analysis: Highlights of the FY 2023 second quarter budget amendments include the following.

- A. Net increase to the Water System revenues of \$3.5 million (Table 1A)
 - \$2.8 million revenue increase – Investment earnings adjustment based on revised interest rates provided by the Authority’s investment advisor have been applied to the cashflow forecast related to the FY 2024 budget preparation.
 - \$0.7 million revenue increase – Other earnings adjustment based on activity to date for energy rebates, radio tower lease payments received, scrap metal sales, grants (apprentice program, EGLE Watershed Council, and FEMA COVID-19), and other miscellaneous receipts. The source of revenue for this category fluctuates from year to year.
- B. There is an increase to the Water Operations & Maintenance (O&M) Expense of \$4.3 million. (Table 1A). The primary drivers for this increase are as follows.
 - Chemicals - \$4.7 million increase – Chemical costs, primarily Chlorine, Phosphoric Acid, and Hydrofluorosilicic Acid (Fluoride), have incurred significant cost increases due to supply issues.
 - Utilities - Electric - \$1.2 million increase – This is related to the increase to the charge for kWh.

- Personnel - \$2.8 million decrease - The decrease is primarily due to the timing of filling vacant positions, especially those that are hard to fill in this tight labor market.
- Capital Program Allocation - \$0.7 million increase – This is the portion of Personnel costs which are attributed to the Capital Improvement Plan. The amount in this category is shown as negative as this is a “contra” account which represents an offset to the Personnel costs section of the O&M budget. The adjustment to the Capital Program Allocation budget is related to the adjustment to the Personnel costs referenced in the bullet point above.
- Supplies & Other - \$0.5 million increase – This increase is primarily due to maintenance needs at the water plants and pumping stations.
- The Water System Operations Unallocated Reserves, at the time of the FY 2023 budget adoption, was at \$2.3 million. This amount is insufficient to cover the increases noted in the bullet points above.

C. Net increase to the Sewer System revenues of \$6.9 million (Table 1B)

- \$1.4 million revenue increase – This represents the current estimate of payments that will be received from Highland Park under the reinforced judgement. The original budget assumed no payments from Highland Park.
- \$4.8 revenue increase – Investment earnings adjustment based on revised interest rates provided by the Authority’s investment advisor have been applied to the cashflow forecast related to the September 2022 bond transaction.
- \$0.8 million revenue increase – Other earnings adjustment based on activity to date for energy rebates, lease payments received for easements, scrap metal sales, grants (EGLE Watershed Council and FEMA COVID-19), and other miscellaneous receipts. The source of revenue for this category fluctuates from year to year.

D. There is an increase to the Sewer Operations & Maintenance Expense of \$8.4 million. (Table 1B). The primary drivers for this increase are as follows.

- Utilities - \$8.4 million increase – Water Service is the primary driver in this category with an increase of \$8.1 million. Meters have been repaired and replaced at the WRRF (Water Resource Recovery Facility) and bills which had previously contained estimated readings are now being received with actual readings. The actual readings are coming in higher than the estimated readings. In addition, a new water billing structure was implemented in early FY 2023 which has resulted in an increase in the water billing rate. Bills reflecting the new billing rate had not begun to be received until after the first quarter FY 2023 budget amendment had been presented. The wastewater

facilities impacted by this rate increase are the WRRF, Oakwood Combined Sewer Overflow, and the Biosolids Dryer Facility (BDF).

- The Wastewater System Operations Unallocated Reserves, at the time of the FY 2023 budget adoption, was at \$3.1 million. This amount was significantly reduced for the first quarter FY 2023 budget amendment and is insufficient to cover the increase noted in the bullet point above.

- E. Construction Funds - Grant Revenues (SRF Loans) (Tables 4A and 4B) - The amount budgeted for draws of State Revolving Fund (SRF) Loans for both the water (\$44.0 million decrease) and sewer (\$10.3 million decrease) construction funds have been adjusted to reflect the timing of project design and construction activity.
- F. Construction Funds – Bond Fund Earnings on Investments (Tables 4A and 4B) – The amounts budgeted for investment earnings have been increased for both the water (\$3.7 million) and sewer (\$3.9 million) construction funds for the September 2022 bond transaction.
- G. Construction Funds – Capital Improvement Plan (CIP) (Tables 4A and 4B) - The Capital Spending Ratio for the water capital improvement plan is forecasted to increase from 100.0% to 116.2% which equates to \$31.4 million. The Capital Spending Ratio for the sewer capital improvement plan was increased from 100.0% to 110.7% which equates to \$13.5 million. These adjustments were based on a review of the spend projections for FY 2023 (revised since the FY 2023-FY 2027 CIP was approved by the Board on February 22, 2022) and discussions with project personnel as well as the rising costs of materials and labor and are reflected in the summary tables of the discussion draft 2 Capital Improvement Plan 2024-2028 which was presented at the Capital Planning Committee meeting on January 18, 2023 [Discussion Draft 2 - CIP FY 2024-2028](#).

The attached budget amendment report is organized in the following manner.

1. Appropriation Level - Revenue Requirement - Water and Sewer Systems

- A. *Water System General Operating Fund*
- B. *Sewer System General Operating Fund*
- C. *Total Operating Fund Level – Water System and Sewer System (Supplemental Information)*
- D. *Enterprise-wide Core Groups (Supplemental Information)*
- E. *Enterprise-wide Operations & Maintenance Account Type (Supplemental Information)*

F. Unallocated Reserve by Core Group (Supplemental Information)

2. Appropriation Level – Debt Service – Water and Sewer Systems

- A. Water System Debt Service Coverage Calculation*
- B. Sewer System Debt Service Coverage Calculation*

3. Appropriation Level – Improvement & Extension Fund – Water and Sewer Systems

- A. Water System Improvement & Extension Fund*
- B. Sewer System Improvement & Extension Fund*

4. Appropriation Level – Construction Fund – Water and Sewer Systems

- A. Water System Construction Fund*
- B. Sewer System Construction Fund*

A budget amendment resolution reflecting the budget amendments is attached.



Quarterly Budget Amendment Report
FY 2023 Ending December 31, 2022

Table 1A - Appropriation Level - Revenue Requirement – Water System General Operating

Water System	FY 2023 Board Adopted Budget	Total 1st Quarter FY 2023 Amendments	Total 2nd Quarter FY 2023 Amendments	FY 2023 Amended Budget	FY 2023 Activity Thru 12/31/2022
Revenues					
Suburban Wholesale Customer Charges	\$ 333,219,000	\$ (1,105,700)	\$ -	\$ 332,113,300	\$ 173,030,500
Less: Bad Debt Expense	(1,257,000)	-	-	\$ (1,257,000)	-
Retail Service Charges	22,985,900	(151,600)	-	22,834,300	11,442,400
Investment Earnings	948,700	5,921,200	2,800,300	9,670,200	2,574,200
Other Revenues	175,000	-	700,000	875,000	829,300
Total Revenues	\$ 356,071,600	\$ 4,663,900	\$ 3,500,300	\$ 364,235,800	\$ 187,876,400
Revenue Requirements					
Operations & Maintenance Expense	\$ 144,847,700	\$ -	\$ 4,300,000	\$ 149,147,700	\$ 76,173,200
General Retirement System Legacy Pension	6,048,000	-	-	6,048,000	3,024,000
Debt Service	150,337,100	490,200	(772,000)	150,055,300	76,396,700
General Retirement System Accelerated Pension	6,268,300	-	-	6,268,300	3,134,100
Extraordinary Repair & Replacement Deposit	-	-	-	-	-
Water Residential Assistance Program Contribution	1,770,500	-	-	1,770,500	885,300
Regional System Lease	22,500,000	-	-	22,500,000	11,250,000
DWSD Budget Shortfall Pending	-	-	-	-	-
Improvement & Extension Fund Transfer Pending	24,300,000	4,173,700	(27,700)	28,446,000	14,236,800
Total Revenue Requirements	\$ 356,071,600	\$ 4,663,900	\$ 3,500,300	\$ 364,235,800	\$ 185,100,100
Net Actual to Date	\$ -	\$ -	\$ -	\$ -	\$ 2,776,300



Quarterly Budget Amendment Report
FY 2023 Ending December 31, 2022

Appropriation Level – Revenue Requirement – Water System General Operating Budget Amendment Explanation	
Revenues	
Suburban Wholesale Customer Charges	<i>No budget amendment is required.</i>
Bad Debt	<i>No budget amendment is required.</i>
Retail Services Charges	<i>No budget amendment is required.</i>
Investment Earnings	<i>The increase is based on the revised interest rates which have been applied to the cashflow forecast related to the FY 2024 budget preparation.</i>
Other Revenues	<i>The budget amendment proposed is based on activity to date for energy rebates, radio tower lease payments received, scrap metal sales, grants (apprentice program, EGLE Watershed Council, and FEMA COVID-19), and other miscellaneous receipts. This source of revenue fluctuates from year to year.</i>
Revenue Requirements (Expenditures)	
Operations & Maintenance Expense	<i>The Water O&M budget is being increased by \$4.3 million to cover the shortfall projected for FY 2023 (details can be found in the Highlights section beginning on the first page of this document).</i>
General Retirement System Legacy Pension	<i>No budget amendment is required. Budget and funding are on a fixed schedule.</i>
Debt Service	<i>The decrease is due to the revision of the SRF schedules (timing of the draws).</i>
General Retirement System Legacy Pension – Accelerated Payment	<i>No budget amendment is required. Budget and funding are on a fixed schedule.</i>
Extraordinary Repair & Replacement Deposit	<i>No budget amendment is required. This is a formulaic requirement in the Master Bond Ordinance. Based on adopted and amended budget, no adjustment is required.</i>
Water Residential Assistance Program Contribution	<i>No budget amendment is required. Budget is fixed at time of budget adoption.</i>



Quarterly Budget Amendment Report
FY 2023 Ending December 31, 2022

Appropriation Level – Revenue Requirement – Water System General Operating Budget Amendment Explanation	
Regional System Lease	<i>No budget amendment is required. Lease payment is established in accordance with terms of the lease.</i>
DWSD Budget Shortfall Pending	<i>No budget amendment is proposed at this time.</i>
Improvement & Extension Fund Transfer Pending	<i>Represents annual funding for pay-as-you-go capital improvement program. Budget amendments to revenues, bad debt, investment earnings, debt service, and DWSD budget shortfall affect this line item.</i>



Quarterly Budget Amendment Report
FY 2023 Ending December 31, 2022

Table 1B - Appropriation Level - Revenue Requirement – Sewer System General Operating

Sewer System	FY 2023 Board Adopted Budget	Total 1st Quarter FY 2023 Amendments	Total 2nd Quarter FY 2023 Amendments	FY 2023 Amended Budget	FY 2023 Activity Thru 12/31/2022
Revenues					
Suburban Wholesale Customer Charges	\$ 280,824,000	\$ (5,416,800)	\$ -	\$ 275,407,200	\$ 137,722,900
Less: Bad Debt Expense	(5,420,500)	3,020,500	1,400,000	(1,000,000)	-
Retail Service Charges	191,042,200	-	-	191,042,200	95,521,100
Industrial Waste Control Charges	8,420,000	-	-	8,420,000	4,185,500
Pollutant Surcharges	4,950,800	-	-	4,950,800	2,524,500
Investment Earnings	1,155,600	7,615,600	4,760,900	13,532,100	3,854,900
Other Revenues	400,000	-	770,000	1,170,000	960,500
Total Revenues	\$ 481,372,100	\$ 5,219,300	\$ 6,930,900	\$ 493,522,300	\$ 244,769,400
Revenue Requirements					
Operations & Maintenance Expense	\$ 184,052,600	\$ 10,769,900	\$ 8,400,000	\$ 203,222,500	\$ 99,278,000
General Retirement System Legacy Pension	10,824,000	-	-	10,824,000	5,412,000
Debt Service	205,638,100	5,717,100	1,153,900	212,509,100	106,058,100
General Retirement System Accelerated Pension	11,620,700	-	-	11,620,700	5,810,400
Extraordinary Repair & Replacement Deposit	-	-	-	-	-
Water Residential Assistance Program Contribution	2,394,200	-	-	2,394,200	1,197,100
Regional System Lease	27,500,000	-	-	27,500,000	13,750,000
DWSD Budget Shortfall Pending	-	-	-	-	-
Improvement & Extension Fund Transfer Pending	39,342,500	(11,267,700)	(2,623,000)	25,451,800	14,037,400
Total Revenue Requirements	\$ 481,372,100	\$ 5,219,300	\$ 6,930,900	\$ 493,522,300	\$ 245,543,000
Net Actual to Date	\$ -	\$ -	\$ -	\$ -	\$ (773,600)



Quarterly Budget Amendment Report
FY 2023 Ending December 31, 2022

Appropriation Level – Revenue Requirement – Sewer System General Operating Budget Amendment Explanation	
<i>Revenues</i>	
Suburban Wholesale Customer Charges	<i>No budget amendment is required.</i>
Bad Debt	<i>The increase represents the current estimate of payments that will be received from Highland Park under the reinforced judgement. The original budget assumed no payments from Highland Park.</i>
Retail Services Charges	<i>No budget amendment is required.</i>
Industrial Waste Control Charges	<i>No budget amendment is required.</i>
Pollutant Surcharges	<i>No budget amendment is required.</i>
Investment Earnings	<i>The increase is based on the revised interest rates which have been applied to the cashflow forecast related to the FY 2024 budget preparation.</i>
Other Revenues	<i>The budget amendment proposed is based on activity to date for energy rebates, lease payments received for easements, scrap metal sales, grants (EGLE Watershed Council and FEMA COVID-19), and other miscellaneous receipts. This source of revenue fluctuates from year to year.</i>
<i>Revenue Requirements (Expenditures)</i>	
Operations & Maintenance Expense	<i>The Sewer O&M budget is being increased by \$8.4 million to cover the additional shortfall projected for FY 2023 (details can be found in the Highlights section beginning on the first page of this document).</i>
General Retirement System Legacy Pension	<i>No budget amendment is required. Budget and funding are on a fixed schedule.</i>
Debt Service	<i>The increase is due to the revision of the SRF schedules (decrease due to timing of the draws) as well as the increase in the variable rate on the 2006D Bonds.</i>



Quarterly Budget Amendment Report
FY 2023 Ending December 31, 2022

Appropriation Level – Revenue Requirement – Sewer System General Operating Budget Amendment Explanation	
General Retirement System Legacy Pension – Accelerated Payment	<i>No budget amendment is required. Budget and funding are on a fixed schedule.</i>
Extraordinary Repair & Replacement Deposit	<i>No budget amendment is required. This is a formulaic requirement in the Master Bond Ordinance. Based on adopted and amended budget, no adjustment is required.</i>
Water Residential Assistance Program Contribution	<i>No budget amendment is required. Budget is fixed at time of budget adoption.</i>
Regional System Lease	<i>No budget amendment is required. Lease payment is established in accordance with terms of the lease.</i>
DWSD Budget Shortfall Pending	<i>No budget amendment is proposed at this time.</i>
Improvement & Extension Fund Transfer Pending	<i>Represents annual funding for pay-as-you-go capital improvement program. Budget amendments to revenues, bad debt, investment earnings, debt service, and DWSD budget shortfall affect this line item.</i>



Quarterly Budget Amendment Report
FY 2023 Ending December 31, 2022

Table 1C - Supplemental Information – Operating Fund Level - Water System and Sewer System

System	FY 2023 Board Adopted Budget	Total 1st Quarter FY 2023 Amendments	Total 2nd Quarter FY 2023 Amendments	FY 2023 Amended Budget	FY 2023 Activity Thru 12/31/2022
Water System	\$ 144,847,700	\$ -	\$ 4,300,000	\$ 149,147,700	\$ 76,173,200
Sewer System	184,052,600	10,769,900	8,400,000	203,222,500	99,278,000
Total	\$ 328,900,300	\$ 10,769,900	\$ 12,700,000	\$ 352,370,200	\$ 175,451,200

Totals may be off due to rounding.

As shown in the table above, there are no budget amendments for transfers of resources between the water and sewer funds. It is unforeseen that such an amendment would occur as each system is accounted for as a stand-alone entity. The purpose of this table is to transparently report that funds from one system do not provide budget support to the other system.



Quarterly Budget Amendment Report
FY 2023 Ending December 31, 2022

Table 1D - Supplemental Information - Enterprise-wide Core Groups

O&M Major Budget Categories (Core Groups)	FY 2023 Board Adopted Budget	Total 1st Quarter FY 2023 Amendments	Total 2nd Quarter FY 2023 Amendments	FY 2023 Amended Budget	FY 2023 Activity Thru 12/31/2022
A Water System Operations	\$ 76,518,200	\$ -	\$ 4,300,000	\$ 80,818,200	\$ 42,087,100
B Wastewater System Operations	113,197,500	10,769,900	8,400,000	132,367,400	67,179,600
C Centralized Services	104,502,900	-	-	104,502,900	49,314,700
D Administrative & Other Services	34,681,700	-	-	34,681,700	16,869,800
Total	\$ 328,900,300	\$ 10,769,900	\$ 12,700,000	\$ 352,370,200	\$ 175,451,200

Totals may be off due to rounding.

A subset of the operating funds are core groups that account for A) direct cost of water operations, B) direct cost of sewer operations, C) centralized services (E.g., field services, security, information technology, facilities, and fleet), D) administrative services (E.g., finance, public affairs, general counsel, and organizational development). The costs of the latter two categories are allocated to the water and sewer systems based upon an internal cost allocation plan that is performed on an annual basis.

Through the second quarter FY 2023, there are no amendments that cross the core groups.

For A-Water System Operations, the Water O&M budget is being increased \$4.3 million and for B-Wastewater System Operations, the Sewer O&M budget is being further increased \$8.4 million to cover the shortfalls projected for FY 2023 (details can be found in the Highlights section beginning on the first page of this document).

For more activity within these groups, see *Supplemental Information - Enterprise-wide Operations & Maintenance Department and Account Level Amendments (Addendum 1)*.



Quarterly Budget Amendment Report
FY 2023 Ending December 31, 2022

Table 1E - Supplemental Information - Enterprise-wide Operations & Maintenance Account Type

O&M Expense Categories (Account Type)	FY 2023 Board Adopted Budget	Total 1st Quarter FY 2023 Amendments	Total 2nd Quarter FY 2023 Amendments	FY 2023 Amended Budget	FY 2023 Activity Thru 12/31/2022
Personnel Costs	\$ 122,144,300	\$ (367,200)	\$ (2,774,800)	\$ 119,002,300	\$ 58,408,000
Utilities	51,007,400	4,910,100	9,597,700	65,515,200	35,947,500
Chemicals	16,118,600	7,663,000	4,694,300	28,475,900	14,880,100
Supplies & Other	34,911,800	-	209,700	35,121,500	16,406,400
Contractual Services	104,579,200	1,413,300	(14,200)	105,978,300	51,355,600
Capital Program Allocation	(4,376,200)	-	740,000	(3,636,200)	(926,400)
Shared Services	(2,925,000)	1,424,100	-	(1,500,900)	(620,000)
Unallocated Reserve	7,440,200	(4,273,400)	247,300	3,414,100	-
Total	\$ 328,900,300	\$ 10,769,900	\$ 12,700,000	\$ 352,370,200	\$ 175,451,200

Totals may be off due to rounding.

The table above presents the Operations & Maintenance budget by the major expense categories (account type).

For additional detail and the explanation of the key changes to the FY 2023 budget within these categories, see *Supplemental Information - Enterprise-wide Operations & Maintenance Department and Account Level Amendments (Addendum 1)*.

For an additional view of the Operations & Maintenance budget by expense category (account type) and by departmental level, see *Supplemental Information - Enterprise-wide Operations & Maintenance Account Type and Departmental Level Amendments (Addendum 2)*.



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Table 1F - Supplemental Information - Unallocated Reserve by Core Group

	FY 2023 Board Adopted Budget	Total 1st Quarter FY 2023 Amendments	Total 2nd Quarter FY 2023 Amendments	FY 2023 Amended Budget
O&M Unallocated Reserves				
Water System Operations	\$ 2,284,700	\$ -	\$ (9,300)	\$ 2,275,400
Wastewater System Operations	3,055,500	(3,055,200)	302,600	302,900
Centralized Services	1,600,000	(1,218,200)	-	381,800
Administrative & Other Services	500,000	-	(46,000)	454,000
Total	\$ 7,440,200	\$ (4,273,400)	\$ 247,300	\$ 3,414,100

Totals may be off due to rounding.

An Unallocated Reserve account is established for each of the four core groups. Budget is assigned to these accounts to cover expenditures not known at the time the budget is developed (merit increases, fluctuations within maintenance contracts and usage of utilities and chemicals, projects and initiatives not planned at the time the initial budget was developed, etc.). It is GLWA's internal budget directive for each area, group, and team to manage their needs to an amount within the initial budget. If required, an amendment is made from the unallocated reserve. If an area does not require as much funding as was established in the original budget, that department's budgeted expenses are reduced, and the unallocated reserve is increased.

For additional information on the FY 2023 changes to the unallocated reserve, see *Supplemental Information - Enterprise-wide Operations & Maintenance Department and Account Level Amendments (Addendum 1)*.



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Table 2A - Appropriation Level – Debt Service Coverage Calculation – Water System

Water System - Debt Service Coverage Calculation	FY 2023 Adopted Budget	1st Quarter FY 2023 Amendments Regional System	Final Adjustment to FY 2023 Local System Budget	FY 2023 Amended Budget	2nd Quarter FY 2023 Amendments Regional System	2nd Quarter FY 2023 Amendments Local System	FY 2023 Amended Budget
Revenues							
1 Regional System Wholesale Revenues	\$ 354,947,900	\$ (1,257,300)	\$ -	\$ 353,690,600	\$ -	\$ -	\$ 353,690,600
2 Local System Revenues	70,104,100	-	18,061,300	88,165,400	-	-	88,165,400
3 Miscellaneous Revenue (Local System)	3,900,000	-	800	3,900,800	-	-	3,900,800
4 Non-Operating Revenue (Regional System)	1,123,700	5,921,200	-	7,044,900	3,500,300	-	10,545,200
5 Total Revenues	\$ 430,075,700	\$ 4,663,900	\$ 18,062,100	\$ 452,801,700	\$ 3,500,300	\$ -	\$ 456,302,000
Revenue Requirements							
Operations & Maintenance Expense							
6 Regional System Wholesale Expenses	\$ 144,847,700	\$ -	\$ -	\$ 144,847,700	\$ 4,300,000	\$ -	\$ 149,147,700
7 Local System Expenses	30,490,000	-	12,091,600	42,581,600	-	-	42,581,600
8 GRS Pension allocable to Regional System	6,048,000	-	-	6,048,000	-	-	6,048,000
9 GRS Pension allocable to Local System	4,272,000	-	-	4,272,000	-	-	4,272,000
10 Total Operations & Maintenance Expense	185,657,700	-	12,091,600	197,749,300	4,300,000	-	202,049,300
11 Net Revenues after Operations & Maintenance Expense	\$ 244,418,000	\$ 4,663,900	\$ 5,970,500	\$ 255,052,400	\$ (799,700)	\$ -	\$ 254,252,700
Debt Service by Lien							
12 Senior Lien Bonds	\$ 135,939,700	\$ (2,166,600)	\$ -	\$ 133,773,100	\$ -	\$ -	\$ 133,773,100
13 Second Lien Bonds	47,200,100	2,917,100	-	50,117,200	-	-	50,117,200
14 SRF Junior Lien Bonds	10,061,800	(258,900)	-	9,802,900	(772,000)	(156,500)	8,874,400
15 Total Debt Service	\$ 193,201,600	\$ 491,600	\$ -	\$ 193,693,200	\$ (772,000)	\$ (156,500)	\$ 192,764,700
Debt Service Coverage							
16 Senior Lien Bonds (11)/(12)	1.80	0.06	0.04	1.91	(0.01)	0.00	1.90
17 Second Lien Bonds (11)/[(12)+(13)]	1.33	0.02	0.03	1.39	(0.00)	0.00	1.38
18 SRF Junior Lien Bonds (11)/(15)	1.27	0.02	0.03	1.32	(0.00)	0.00	1.32

* Rows highlighted in light grey in the above table are designed to align with the DWSD Budget. The approved GLWA budget was based on preliminary DWSD budget information.

** Total Debt Service, highlighted in dark grey (Row 15) in the above table, is adopted by the GLWA Board.



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Appropriation Level - Debt Service - Water System Debt Service Coverage Calculation Budget Amendment Explanation	
Total Debt Service	<i>For purposes of Debt Service coverage, we look at the combined Regional and Local (DWSD) revenue less operations & maintenance (O&M) expense to determine net revenues to calculate the Debt Service Coverage. The Board adopts the Debt Service amount shown on line 15 of the Water System Debt Service Coverage Calculation table on the previous page. This is the amount necessary to pay the principal of and interest on all Regional Water System bonds and to restore any reserves therefore established in the Master Bond Ordinance.</i>



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Table 2B - Appropriation Level – Debt Service Coverage Calculation – Sewer System

Sewer System - Debt Service Coverage Calculation	FY 2023 Adopted Budget	1st Quarter FY 2023 Amendments Regional System	Final Adjustment to FY 2023 Local System Budget	FY 2023 Amended Budget	2nd Quarter FY 2023 Amendments Regional System	2nd Quarter FY 2023 Amendments Local System	FY 2023 Amended Budget
Revenues							
1 Regional System Wholesale Revenues	\$ 479,816,500	\$ (2,396,300)	\$ -	\$ 477,420,200	\$ 1,400,000	\$ -	\$ 478,820,200
2 Local System Revenues	96,467,800	-	(17,897,700)	78,570,100	-	-	78,570,100
3 Miscellaneous Revenue (Local System)	7,640,000	-	(1,300)	7,638,700	-	-	7,638,700
4 Non-Operating Revenue (Regional System)	1,555,600	7,615,600	-	9,171,200	5,530,900	-	14,702,100
5 Total Revenues	\$ 585,479,900	\$ 5,219,300	\$ (17,899,000)	\$ 572,800,200	\$ 6,930,900	\$ -	\$ 579,731,100
Revenue Requirements							
Operations & Maintenance Expense							
6 Regional System Wholesale Expenses	\$ 184,052,600	\$ 10,769,900	\$ -	\$ 194,822,500	\$ 8,400,000	\$ -	\$ 203,222,500
7 Local System Expenses	63,390,000	-	(11,993,600)	51,396,400	-	-	51,396,400
8 GRS Pension allocable to Regional System	10,824,000	-	-	10,824,000	-	-	10,824,000
9 GRS Pension allocable to Local System	2,856,000	-	-	2,856,000	-	-	2,856,000
10 Total Operations & Maintenance Expense	261,122,600	10,769,900	(11,993,600)	259,898,900	8,400,000	-	268,298,900
11 Net Revenues after Operations & Maintenance Expense	\$ 324,357,300	\$ (5,550,600)	\$ (5,905,400)	\$ 312,901,300	\$ (1,469,100)	\$ -	\$ 311,432,200
Debt Service by Lien							
12 Senior Lien Bonds	\$ 149,780,900	\$ 1,749,800	\$ -	\$ 151,530,700	\$ 1,664,100	\$ -	\$ 153,194,800
13 Second Lien Bonds	36,738,500	3,108,600	-	39,847,100	-	-	39,847,100
14 SRF Junior Lien Bonds	51,084,400	891,300	-	51,975,700	(510,200)	(110,700)	51,354,800
15 Total Debt Service	\$ 237,603,800	\$ 5,749,700	\$ -	\$ 243,353,500	\$ 1,153,900	\$ (110,700)	\$ 244,396,700
Debt Service Coverage							
16 Senior Lien Bonds (11)/(12)	2.17	(0.06)	(0.04)	2.06	(0.03)	0.00	2.03
17 Second Lien Bonds (11)/[(12)+(13)]	1.74	(0.07)	(0.03)	1.63	(0.02)	0.00	1.61
18 SRF Junior Lien Bonds (11)/(15)	1.37	(0.06)	(0.02)	1.29	(0.01)	0.00	1.27

* Rows highlighted in light grey in the above table are designed to align with the DWSD Budget. The approved GLWA budget was based on preliminary DWSD budget information.

** Total Debt Service, highlighted in dark grey (Row 15) in the above table, is adopted by the GLWA Board.



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Appropriation Level - Debt Service - Sewer System Debt Service Coverage Calculation Budget Amendment Explanation	
Total Debt Service	<i>For purposes of Debt Service coverage, we look at the combined Regional and Local (DWSD) revenue less operations & maintenance (O&M) expense to determine net revenues to calculate the Debt Service Coverage. The Board adopts the Debt Service amount shown on line 15 of the Sewer System Debt Service Coverage Calculation table on the previous page. This is the amount necessary to pay the principal of and interest on all Regional Sewer System bonds and to restore any reserves therefore established in the Master Bond Ordinance.</i>



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Table 3A - Appropriation Level – Improvement & Extension Fund – Water System

Water Improvement & Extension Fund	FY 2023 Board Adopted Budget	Total 1st Quarter FY 2023 Amendments	Total 2nd Quarter FY 2023 Amendments	FY 2023 Amended Budget	FY 2023 Activity Thru 12/31/2022
Revenues					
Water System Transfers In from General Operating	\$ 24,300,000	\$ 4,173,700	\$ (27,700)	\$ 28,446,000	\$ 14,236,800
Earnings on Investments (b)	-	1,888,200	880,500	2,768,700	258,700
Net Use (Increase) of Reserves (a)	19,888,000	(15,409,100)	6,817,200	11,296,100	-
Total Revenues	\$ 44,188,000	\$ (9,347,200)	\$ 7,670,000	\$ 42,510,800	\$ 14,495,500
Expenditures					
Water System Revenue Transfers Out (b)	\$ -	\$ 1,888,200	\$ 880,500	\$ 2,768,700	\$ 666,600
Capital Spending - Other	-	-	-	-	-
Capital Outlay	15,452,600	-	-	15,452,600	5,414,500
Revenue Financed Capital - Transfer to Construction Fund	28,735,400	(11,235,400)	6,789,500	24,289,500	(9,728,100)
Total Expenditures	\$ 44,188,000	\$ (9,347,200)	\$ 7,670,000	\$ 42,510,800	\$ (3,647,000)
<i>(a) Beginning Net Position</i>	\$ 110,185,500	\$ (15,685,500)	\$ -	\$ 94,500,000	
<i>Net (Use) Increase of Reserves</i>	\$ (19,888,000)	\$ 15,409,100	\$ (6,817,200)	\$ (11,296,100)	
<i>Projected Ending Net Position</i>	\$ 90,297,500	\$ (276,400)	\$ (6,817,200)	\$ 83,203,900	

(a) The beginning net position reflects an estimated unaudited net position as of 6.30.2022 based on estimated activity at the time of budget approval. This figure will continue to change as the audit process ensues.

(b) Note: As outlined in the Master Bond Ordinance, the investment earnings in the I&E Fund are transferred to the Receiving Fund. The impact is to reduce revenue required from charges when calculating the annual Revenue Requirement budget.



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Appropriation Level – Improvement & Extension Fund – Water System Budget Amendment Explanation	
Revenues	
Transfers In from General Operating	<i>The proposed budget amendment is to match the amount available for transfer from the FY 2023 revenue requirement based upon general operating fund performance. (see I&E Fund Transfer Pending line on the Appropriation Level-Revenue Requirement-Water System General Operating table).</i>
Earnings on Investments	<i>The increase is based on the revised interest rates. There is a corresponding transfer of earnings back to the general operating fund as allowed by the Master Bond Ordinance. The net effect on the I&E Fund is zero as the earnings are budgeted and accounted for in the operating fund to lower revenue requirement for charges.</i>
Net Use (Source) of Reserves	<i>This amount represents the net amount of revenues less expenses. A negative amount represents an increase in reserves from current year activity rather than a use of reserves.</i>
Expenditures	
Water System Revenue Transfers Out (Earnings on Investments)	<i>The increase is based on the revised interest rates. This line offsets Earnings on Investments and represents the transfer of earnings back to the general operating fund as allowed by the Master Bond Ordinance. Any variance in activity between the two lines represents a timing difference.</i>
Capital Spending - Other	<i>No budget amendment is required. This line represents an adjustment to the projects in the Board adopted capital improvement plan (CIP) that do not meet the criteria for debt financing.</i>
Capital Outlay	<i>No budget amendment is required.</i>
Revenue Financed Capital – Transfer to Construction Fund	<i>The proposed budget amendment reflects a rebalancing of use of I&E and Construction funds for Capital Projects.</i>



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Table 3B - Appropriation Level - Improvement & Extension Fund – Sewer System

Sewer Improvement & Extension Fund	FY 2023 Board Adopted Budget	Total 1st Quarter FY 2023 Amendments	Total 2nd Quarter FY 2023 Amendments	FY 2023 Amended Budget	FY 2023 Activity Thru 12/31/2022
Revenues					
Sewer System Transfers In from General Operating	\$ 39,342,500	\$ (11,267,700)	\$ (2,623,000)	\$ 25,451,800	\$ 14,037,400
Receipt of DWSD Shortfall Loan Interest	-	-	-	-	-
Earnings on Investments (b)	-	2,016,500	1,379,200	3,395,700	769,600
Net Use (Increase) of Reserves (a)	5,549,500	8,322,800	(13,781,700)	90,600	-
Total Revenues	\$ 44,892,000	\$ (928,400)	\$ (15,025,500)	\$ 28,938,100	\$ 14,807,000
Expenditures					
Sewer System Revenue Transfers Out (b)	\$ -	\$ 2,016,500	\$ 1,379,200	\$ 3,395,700	\$ 694,800
Capital Spending - Other	-	2,389,700	-	2,389,700	-
Capital Outlay	18,447,100	-	(1,904,700)	16,542,400	6,571,700
Revenue Financed Capital - Transfer to Construction Fund	26,444,900	(5,334,600)	(14,500,000)	6,610,300	(5,740,300)
Total Expenditures	\$ 44,892,000	\$ (928,400)	\$ (15,025,500)	\$ 28,938,100	\$ 1,526,200
<i>(a) Beginning Net Position</i>	\$ 93,214,400	\$ 11,085,600	\$ -	\$ 104,300,000	
<i>Net (Use) Increase of Reserves</i>	(5,549,500)	(8,322,800)	13,781,700	(90,600)	
<i>Projected Ending Net Position</i>	\$ 87,664,900	\$ 2,762,800	\$ 13,781,700	\$ 104,209,400	

(a) The beginning net position reflects an estimated unaudited net position as of 6.30.2022 based on estimated activity at the time of budget approval. This figure will continue to change as the audit process ensues.

(b) Note: As outlined in the Master Bond Ordinance, the investment earnings in the I&E Fund are transferred to the Receiving Fund. The impact is to reduce revenue required from charges when calculating the annual Revenue Requirement budget.



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Appropriation Level – Improvement & Extension Fund – Sewer System Budget Amendment Explanations	
Revenues	
Transfers In from General Operating	<i>The proposed budget amendment is to match the amount available for transfer from the FY 2023 revenue requirement based upon general operating fund performance. (see I&E Fund Transfer Pending line on the Appropriation Level-Revenue Requirement-Sewer System General Operating table).</i>
Receipt of DWSD Shortfall Loan Interest	<i>No budget amendment is required. This line represents the interest earnings on Notes Receivable, when applicable, for DWSD Sewer System Shortfall to the payment schedule.</i>
Earnings on Investments	<i>The increase is based on the revised interest rates. There is a corresponding transfer of earnings back to the general operating fund as allowed by the Master Bond Ordinance. The net effect on the I&E Fund is zero as the earnings are budgeted and accounted for in the operating fund to lower revenue requirement for charges.</i>
Net Use (Source) of Reserves	<i>This amount represents the net amount of revenues less expenditures. A negative amount represents an increase in reserves from current year activity rather than a use of reserves.</i>
Expenditures	
Sewer System Revenue Transfers Out (Earnings on Investments)	<i>The increase is based on the revised interest rates. This line offsets Earnings on Investments and represents the transfer of earnings back to the general operating fund as allowed by the Master Bond Ordinance. Any variance in activity between the two lines represents a timing difference.</i>
Capital Spending – Other	<i>No budget amendment is required. This line represents an adjustment to the projects in the Board adopted capital improvement plan (CIP) that do not meet the criteria for debt financing.</i>
Capital Outlay	<i>The proposed budget amendment reflects the decrease in spending which is primarily driven by the change in project start dates and project scope.</i>
Revenue Financed Capital – Transfer to Construction Fund	<i>The proposed budget amendment reflects a rebalancing of use of I&E and Construction funds for Capital Projects.</i>



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Table 4A - Appropriation Level – Construction Fund – Water System

Water Construction Fund	FY 2023 Board Adopted Budget	Total 1st Quarter FY 2023 Amendments	Total 2nd Quarter FY 2023 Amendments	FY 2023 Amended Budget	FY 2023 Activity Thru 12/31/2022
Revenues					
Transfer from Improvement & Extension Fund	\$ 28,735,400	\$ (11,235,400)	\$ 6,789,500	\$ 24,289,500	\$ (9,728,100)
Bond Proceeds	-	225,000,000	-	225,000,000	228,878,800
Bond Fund Earnings on Investments	128,800	749,000	3,688,000	4,565,800	2,404,300
Grant Revenues (SRF Loans)	54,992,000	71,838,000	(43,963,000)	82,867,000	30,374,400
Net Use (Increase) of Reserves (a)	71,644,800	(247,476,600)	64,899,500	(110,932,300)	-
Total Revenues	\$ 155,501,000	\$ 38,875,000	\$ 31,414,000	\$ 225,790,000	\$ 251,929,400
Expenditures					
Transfer Out	\$ -	\$ -	\$ -	\$ -	\$ 3,918,200
Capital Improvement Plan (b)	194,376,000	-	31,414,000	225,790,000	102,166,300
Capital Spend Rate Adjustment	(38,875,000)	38,875,000	-	-	-
Total Expenditures (b)	\$ 155,501,000	\$ 38,875,000	\$ 31,414,000	\$ 225,790,000	\$ 106,084,500
<i>(a) Beginning Net Position</i>	<i>\$ 188,251,300</i>	<i>\$ (165,251,300)</i>	<i>\$ 100,000</i>	<i>\$ 23,100,000</i>	
<i>Net (Use) Increase of Reserves</i>	<i>(71,644,800)</i>	<i>247,476,600</i>	<i>\$ (64,899,500)</i>	<i>110,932,300</i>	
<i>Projected Ending Net Position</i>	<i>\$ 116,606,500</i>	<i>\$ 82,225,300</i>	<i>\$ (64,799,500)</i>	<i>\$ 134,032,300</i>	
<i>(b) Plus Direct I&E Projects</i>	<i>-</i>	<i>-</i>		<i>-</i>	
<i>Total CIP Expenditures</i>	<i>155,501,000</i>	<i>38,875,000</i>		<i>225,790,000</i>	
<i>Total Published Capital Improvement Plan</i>	<i>194,376,000</i>			<i>194,376,000</i>	
<i>Capital Spending Ratio</i>	<i>80.0%</i>			<i>116.2%</i>	

(a) The beginning net position reflects an estimated unaudited net position as of 6.30.2022 based on estimated activity at the time of budget approval. This figure will continue to change as the audit process ensues.

(b) Note: As outlined in the Master Bond Ordinance, the investment earnings in the I&E Fund are transferred to the Receiving Fund. The impact is to reduce revenue required from charges when calculating the annual Revenue Requirement budget.



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Appropriation Level – Construction Fund – Water System Budget Amendment Explanations	
Revenues	
Transfers from Improvement & Extension Fund	<i>The proposed budget amendment is to match the amount available for transfer from the FY 2023 Improvement & Extension Fund (see Revenue Financed Capital-Operating Transfer to Construction Fund line on the Appropriation Level-Improvement & Extension Fund-Water System table). The proposed budget amendment reflects a rebalancing of use of I&E and Construction funds for Capital Projects.</i>
Bond Proceeds	<i>No budget amendment is required.</i>
Earnings on Investments	<i>The proposed budget amendment reflects the revised estimated investment earnings.</i>
Grant Revenues (State Revolving Fund Loans)	<i>State Revolving Fund (SRF) loan disbursements are on a reimbursement basis. The amount and timing of revenues fluctuates with project expenditures incurred. The proposed amendment reflects the timing of project design and construction activity. Details related to the SRF projects are presented in the semiannual debt report. The most recent semiannual debt report is presented in the November 2022 Audit Committee binder which provides details related to the SRF funding and associated projects.</i>
Net Use (Source) of Reserves	<i>This amount represents the net amount of revenues less expenditures. A “use of reserves” indicates a spend down of prior year reserves. The amount has been amended to reflect the anticipated increase in the Capital spend rate from 100.0% to 116.2% as well as the increased revenues from Investment earnings and decrease in SRF loans.</i>
Expenditures	
Capital Improvement Plan	<i>This line represents an adjustment to the Capital Spend Ratio for the Water Capital Improvement Plan which is forecasted to increase from 100.0% to 116.2%. This adjustment is based on a review of the spend projections for FY 2023, discussions with project personnel, and the rising costs of materials and labor.</i>



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Appropriation Level – Construction Fund – Water System Budget Amendment Explanations	
Capital Spend Rate Assumption Adjustment	<p><i>The proposed budget amendment represents the increase in the projected Capital Spend Rate for the Water CIP from 100.0% (first quarter budget amendment projection) to 116.2% (based on review of actual spend for FY 2023). The Board of Directors adopts a capital spending ratio assumption (SRA) which allows the realities of capital program delivery to align with the financial plan. The SRA is an analytical approach to bridge the total dollar amount of projects in the CIP with what can realistically be spent due to limitations beyond GLWA's control and/or delayed for nonbudgetary reasons. Those limitations, whether financial or non-financial, necessitate the SRA for budgetary purposes, despite the prioritization established. Amendments to the spend rate assumption are made to align the projected financial use of resources with revised capital improvement plan spending forecasts. The Capital Spend Rate for the Water CIP was amended for the first quarter from 80.0% (projection at the time of the FY 2023 budget adoption) to 100.0%. The most recent quarterly construction work-in-progress (CWIP) report is presented in the December 2022 Audit Committee binder.</i></p>



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Table 4B - Appropriation Level – Construction Fund – Sewer System

Sewer Construction Fund	FY 2023 Board Adopted Budget	Total 1st Quarter FY 2023 Amendments	Total 2nd Quarter FY 2023 Amendments	FY 2023 Amended Budget	FY 2023 Activity Thru 12/31/2022
Revenues					
Transfer from Improvement & Extension Fund	\$ 26,444,900	\$ (5,334,600)	\$ (14,500,000)	\$ 6,610,300	\$ (5,740,300)
Bond Proceeds	-	225,000,000	-	225,000,000	225,854,600
Bond Fund Earnings on Investments	86,200	820,000	3,897,600	4,803,800	2,613,000
Grant Revenues (SRF Loans)	18,720,000	31,317,000	(10,287,000)	39,750,000	8,175,500
Net Use (Increase) of Reserves (a)	49,197,900	(222,709,100)	34,399,400	(139,111,800)	-
Total Revenues	\$ 94,449,000	\$ 29,093,300	\$ 13,510,000	\$ 137,052,300	\$ 230,902,800
Expenditures					
Transfer Out	\$ -	\$ -	\$ -	\$ -	\$ 894,000
Capital Improvement Plan (b)	125,932,000	(2,389,700)	13,510,000	137,052,300	44,007,200
Capital Spend Rate Adjustment	(31,483,000)	31,483,000	-	-	-
Total Expenditures (b)	\$ 94,449,000	\$ 29,093,300	\$ 13,510,000	\$ 137,052,300	\$ 44,901,200
<i>(a) Beginning Net Position</i>	<i>\$ 131,883,800</i>	<i>\$ (115,883,800)</i>	<i>\$ -</i>	<i>\$ 16,000,000</i>	
<i>Net (Use) Increase of Reserves</i>	<i>(49,197,900)</i>	<i>222,709,100</i>	<i>\$ (34,399,400)</i>	<i>139,111,800</i>	
<i>Projected Ending Net Position</i>	<i>\$ 82,685,900</i>	<i>\$ 106,825,300</i>	<i>\$ (34,399,400)</i>	<i>\$ 155,111,800</i>	
<i>(b) Plus Direct I&E Projects</i>	<i>-</i>	<i>2,389,700</i>	<i>-</i>	<i>2,389,700</i>	
<i>Total CIP Expenditures</i>	<i>94,449,000</i>	<i>31,483,000</i>		<i>139,442,000</i>	
<i>Total Published Capital Improvement Plan</i>	<i>125,932,000</i>			<i>125,932,000</i>	
<i>Capital Spending Ratio</i>	<i>75.0%</i>			<i>110.7%</i>	

(a) The beginning net position reflects an estimated unaudited net position as of 6.30.2022 based on estimated activity at the time of budget approval. This figure will continue to change as the audit process ensues.

(b) Note: As outlined in the Master Bond Ordinance, the investment earnings in the I&E Fund are transferred to the Receiving Fund. The impact is to reduce revenue required from charges when calculating the annual Revenue Requirement budget.



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Appropriation Level – Construction Fund – Sewer System Budget Amendment Explanations	
Revenues	
Transfers from Improvement & Extension Fund	<i>The proposed budget amendment is to match the amount available for transfer from the FY 2023 Improvement & Extension Fund (see Revenue Financed Capital-Operating Transfer to Construction Fund line on the Appropriation Level-Improvement & Extension Fund-Sewer System table). The proposed budget amendment reflects a rebalancing of use of I&E and Construction funds for Capital Projects.</i>
Bond Proceeds	<i>No budget amendment is required.</i>
Earnings on Investments	<i>The proposed budget amendment reflects the revised estimated investment earnings.</i>
Grant Revenues (State Revolving Fund Loans)	<i>State Revolving Fund (SRF) loan disbursements are on a reimbursement basis. The amount and timing of funds fluctuates with project expenditures incurred. The proposed amendment reflects the timing of project design and construction activity. Details related to the SRF projects are presented in the semiannual debt report. The most recent semiannual debt report is presented in the November 2022 Audit Committee binder which provides details related to the SRF funding and associated projects.</i>
Net Use (Source) of Reserves	<i>This amount represents the net amount of revenues less expenditures. A “use of reserves” indicates a spend down of prior year reserves. The amount has been amended to reflect the anticipated increase in the Capital spend rate from 100.0% to 110.7% as well as the increased revenues from Investment earnings and decrease in SRF loans.</i>
Expenditures	
Capital Improvement Plan	<i>This line represents an adjustment to the Capital Spend Ratio for the Sewer Capital Improvement Plan which is forecasted to increase from 100.0% to 110.7%. This adjustment is based on a review of the spend projections for FY 2023, discussions with project personnel, and the rising costs of materials and labor.</i>



Quarterly Budget Amendment Report
FY 2023 Ending December 31, 2022

Appropriation Level – Construction Fund – Sewer System Budget Amendment Explanations	
Capital Spend Rate Adjustment	<p><i>The proposed budget amendment represents the increase in the projected Capital Spend Rate for the Sewer CIP from 100.0% (first quarter budget amendment projection) to 110.7% (based on review of actual spend for FY 2023). The Board of Directors adopts a capital spending ratio assumption (SRA) which allows the realities of capital program delivery to align with the financial plan. The SRA is an analytical approach to bridge the total dollar amount of projects in the CIP with what can realistically be spent due to limitations beyond GLWA's control and/or delayed for nonbudgetary reasons. Those limitations, whether financial or non-financial, necessitate the SRA for budgetary purposes, despite the prioritization established. Amendments to the spend rate assumption are made to align the projected financial use of resources with revised capital improvement plan spending forecasts. The Capital Spend Rate for the Sewer CIP was amended for the first quarter from 75.0% (projection at the time of the FY 2023 budget adoption) to 100.0%. The most recent quarterly construction work-in-progress (CWIP) report is presented in the December 2022 Audit Committee binder.</i></p>



ADDENDUM 1

Supplemental Information –

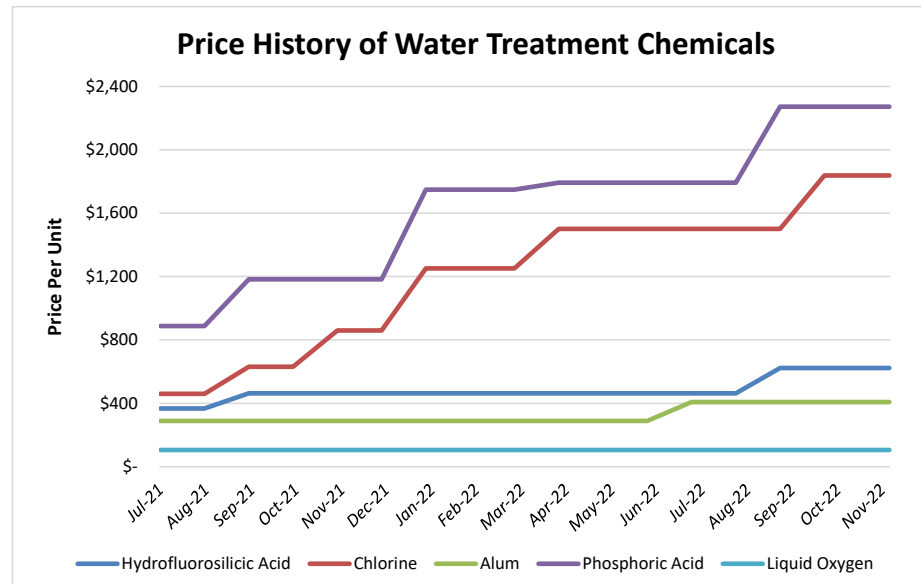
Enterprise-wide Operations & Maintenance Department and Account Level Amendments

The summary of budget amendments for operations & maintenance (department and account level amendments) are organized by the four core groups. The FY 2023 second quarter budget amendments result in an increase to A - Water System Operations and B - Sewer System Operations and net zero changes to the remaining two categories: C - Centralized Services and D - Administrative & Other Services.

GLWA's internal budget directive is for each area, group, and team to manage their needs to an amount within the initial budget. To the extent that is not possible, an amendment is made from the unallocated reserve. If savings are incurred, or an area appears to not require as much funding as established in the original budget, that department's budgeted expenses are reduced, and the unallocated reserve is increased. In administering the budget, there are several refinements to departments and account categories. An explanation of key items is included in the table in Addendum 1.

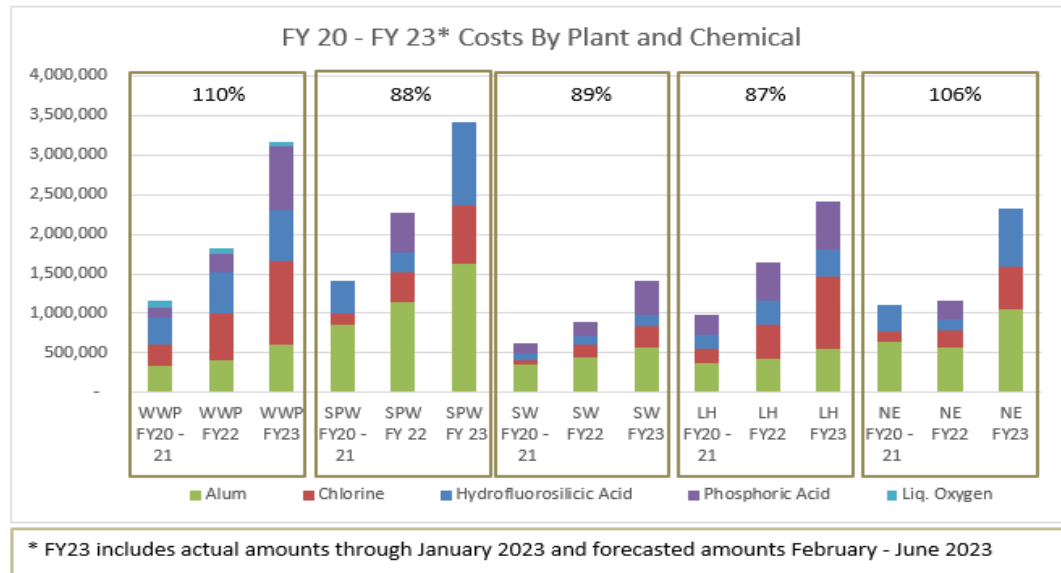
Items greater than \$500,000 include the following (see the table on the following page).

- A – Water System Operations – Net change = \$4.3 million
 - Chemicals – Increase of \$4.7 million – Adjustment for increase in chemical costs, primarily Chlorine, Phosphoric Acid, and Hydrofluorosilicic Acid (Fluoride), based on estimated usage in FY 2023. The following table shows the pricing history of chemicals experienced by Water System Operations.



ADDENDUM 1

Supplemental Information – Enterprise-wide Operations & Maintenance Department and Account Level Amendments



- Utilities – Increase of \$1.2 million – Details can be found in *Addendum 2 – Supplemental Information – Enterprise-wide Operations & Maintenance Account Type and Department Level Amendments*.
 - Personnel – Decrease of \$2.8 million – Due to the timing of filling vacant positions, especially those that are hard to fill in this tight labor market.
 - Capital Program Allocation – Increase of \$0.7 million – This is the portion of Personnel costs which are attributed to the Capital Improvement Plan. The amount in this category is shown as negative as this is a “contra” account which represents an offset to the Personnel costs section of the O&M budget. The adjustment to the Capital Program Allocation budget is related to the adjustment to the Personnel costs referenced in the bullet point above.
 - Supplies & Other – Increase of \$0.5 million - This increase is primarily due to maintenance needs at the water plants and pumping stations.
- B – Wastewater System Operations – Net change = \$8.4 million. This increase is due to Utilities - Details can be found in *Addendum 2 – Supplemental Information – Enterprise-wide Operations & Maintenance Account Type and Department Level Amendments*.

ADDENDUM 1

*Supplemental Information –
Enterprise-wide Operations & Maintenance Department and Account Level Amendments*

The table below shows the second quarter FY 2023 budget amendments per Expense Category for the four core groups.

Major Budget Categories and Expense Categories	Total 2nd Quarter FY 2023 Amendments
A Water System Operations	4,300,000
Personnel	(2,835,000)
Supplies & Other	510,000
Unallocated Reserve	(9,300)
Utilities	1,200,000
Capital Program Allocation	740,000
Chemicals	4,694,300
B Wastewater System Operations	8,400,000
Supplies & Other	(300,300)
Unallocated Reserve	302,600
Utilities	8,397,700
C Centralized Services	-
Contractual Services	80,000
Personnel	(80,000)
D Administrative & Other Services	-
Contractual Services	(94,200)
Personnel	140,200
Unallocated Reserve	(46,000)
Grand Total	12,700,000

ADDENDUM 1

Supplemental Information
Enterprise-wide Operations & Maintenance Department and Account Level Amendments

Total 2nd Quarter FY 2023		
Departmental and Account Level Amendments	Amendments	Explanation of Key Items
A Water System Operations	4,300,000	
Imlay Pumping Station	380,000	
Supplies & Other	380,000	
North Service Center Pumping Station	(90,000)	
Supplies & Other	(90,000)	
Water System Operations Unallocated Reserves	(9,300)	
Unallocated Reserve	(9,300)	
West Service Center Pumping Station	200,000	
Utilities	200,000	
Southwest Water Plant	444,400	
Personnel	(300,000)	
Supplies & Other	170,000	
Utilities	(50,000)	
Chemicals	624,400	Unit price of chemicals has increased in excess of budget; based on estimated quantity use
Water Engineering	(940,000)	
Personnel	(1,680,000)	Reduction in budget for positions that will not be filled until later in the year.
Capital Program Allocation	740,000	Reduction in budget for positions that will not be filled until later in the year. Contra account for Personnel costs attributed to the CIP.
COO - Water Operations & Field Services	235,000	
Personnel	235,000	
Water Director	(130,000)	
Personnel	(180,000)	
Supplies & Other	50,000	
Springwells Water Plant	1,779,000	
Personnel	(250,000)	
Utilities	900,000	Electricity supplier has changed billing for energy generation which has resulted in an increase to the charge for kWh.
Chemicals	1,129,000	Unit price of chemicals has increased in excess of budget; based on estimated quantity use
Northeast Water Plant	470,000	
Personnel	(290,000)	
Chemicals	760,000	Unit price of chemicals has increased in excess of budget; based on estimated quantity use
Water Works Park	597,900	
Personnel	(370,000)	
Utilities	150,000	
Chemicals	817,900	Unit price of chemicals has increased in excess of budget; based on estimated quantity use
Lake Huron Water Plant	1,362,000	
Chemicals	1,362,000	Unit price of chemicals has increased in excess of budget; based on estimated quantity use
Water Quality	1,000	
Chemicals	1,000	
B Wastewater System Operations	8,400,000	
7 Mile Combined Sewer Overflow	(2,800)	
Supplies & Other	(2,800)	
Baby Creek Combined Sewer Overflow	(50,200)	
Supplies & Other	(50,200)	
BDF, COF & Hauling	159,200	
Utilities	159,200	
Leib Combined Sewer Overflow	(22,200)	
Supplies & Other	(22,200)	
Oakwood Combined Sewer Overflow	765,200	
Supplies & Other	(17,300)	
Utilities	782,500	
Puritan Fenkell Combined Sewer Overflow	(5,300)	
Supplies & Other	(5,300)	
Wastewater Dewatering Process	(47,900)	
Supplies & Other	(47,900)	
Wastewater Director	(16,000)	
Supplies & Other	(16,000)	
Wastewater Operations	7,385,700	
Supplies & Other	(70,300)	
Utilities	7,456,000	Increased water bills primarily due to new water billing structure.
Wastewater Secondary Process	(68,300)	
Supplies & Other	(68,300)	
Wastewater System Operations Unallocated Reserves	302,600	
Unallocated Reserve	302,600	
C Centralized Services	-	
Asset Management	(67,000)	
Personnel	(67,000)	
Chief Planning Officer	67,000	
Personnel	67,000	

ADDENDUM 1

Supplemental Information
Enterprise-wide Operations & Maintenance Department and Account Level Amendments

Total 2nd Quarter FY 2023		Explanation of Key Items
Departmental and Account Level Amendments	Amendments	
Energy, Research & Innovation	20,000	
Personnel	20,000	
Field Service Operations	80,000	
Contractual Services	80,000	
Transformation	(100,000)	
Personnel	(100,000)	
D Administrative & Other Services	-	
Administrative Services Unallocated Reserves	(46,000)	
Unallocated Reserve	(46,000)	
Board of Directors	46,000	
Contractual Services	46,000	
CFO Services	-	
Contractual Services	(12,200)	
Personnel	12,200	
Financial Reporting & Accounting	-	
Contractual Services	(90,000)	
Personnel	90,000	
Treasury	-	
Contractual Services	(38,000)	
Personnel	38,000	
Grand Total	12,700,000	

Totals may be off due to rounding



ADDENDUM 2

Supplemental Information –

Enterprise-wide Operations & Maintenance Account Type and Department Level Amendments

The table in Addendum 2 summarizes the FY 2023 second quarter budget amendments for operations & maintenance by the major expense categories (account type). An explanation of key items is included in the table in Addendum 2.

A significant increase in the cost of utilities was experienced in FY 2022 and continues into FY 2023.

- A – Water System Operations – Electric - Increase of \$1.2 million – DTE has changed from a nuclear surcharge recovery to a volumetric delivery surcharge. This change has resulted in an increase to the charge for kWh.
- B – Wastewater System Operations – Increase of \$8.4 million
 - Water Service – Increase of 8.1 million. Meters have been repaired and replaced at the WRRF (Water Resource Recovery Facility) and bills which had previously contained estimated readings are now being received with actual readings. The actual readings are coming in higher than the estimated readings. In addition, a new water billing structure was implemented in early FY 2023 which has resulted in an increase in the water billing rate. Bills reflecting the new billing rate had not begun to be received until after the first quarter FY 2023 budget amendment had been presented. The wastewater facilities impacted by this rate increase are the WRRF, Oakwood Combined Sewer Overflow, and the Biosolids Dryer Facility (BDF).
 - Sewage Service – Increase of \$0.3 million. The cost for sewage disposal is based on volume which has increased at the Oakwood Combined Sewer Overflow facility. The cause for this increase is being investigated.

ADDENDUM 2*Supplemental Information –**Enterprise-wide Operations & Maintenance Account Type and Department Level Amendments*

Utilities		Total 2nd Quarter FY 2023 Amendments
A	Water System Operations	1,200,000
	Electric	1,200,000
B	Wastewater System Operations	8,397,700
	Sewage Service	327,100
	Water Service	8,070,600
Grand Total		9,597,700

ADDENDUM 2

Supplemental Information
Enterprise-wide Operations & Maintenance
Account Type and Department Level Amendments

Expense Categories and Departmental Level Amendments	Total 2nd Quarter FY 2023 Amendments	Explanation of Key Items
Capital Program Allocation	740,000	
Water Engineering	740,000	Reduction in budget for positions that will not be filled until later in the year. Contra account for Personnel costs attributed to the CIP.
Chemicals	4,694,300	Unit price of chemicals has increased in excess of budget (primarily Chlorine, Phosphoric Acid, and Hydrofluorosilicic Acid/Fluoride); based on estimated quantity use.
Southwest Water Plant	624,400	
Springwells Water Plant	1,129,000	
Northeast Water Plant	760,000	
Water Works Park	817,900	
Lake Huron Water Plant	1,362,000	
Water Quality	1,000	
Contractual Services	(14,200)	
Board of Directors	46,000	
CFO Services	(12,200)	
Field Service Operations	80,000	
Financial Reporting & Accounting	(90,000)	
Treasury	(38,000)	
Personnel	(2,774,800)	
Asset Management	(67,000)	
CFO Services	12,200	
Chief Planning Officer	67,000	
Energy, Research & Innovation	20,000	
Financial Reporting & Accounting	90,000	
Transformation	(100,000)	
Treasury	38,000	
Southwest Water Plant	(300,000)	
Water Engineering	(1,680,000)	Reduction in budget for positions that will not be filled until later in the year.
COO - Water Operations & Field Services	235,000	
Water Director	(180,000)	
Springwells Water Plant	(250,000)	
Northeast Water Plant	(290,000)	
Water Works Park	(370,000)	
Supplies & Other	209,700	
7 Mile Combined Sewer Overflow	(2,800)	
Baby Creek Combined Sewer Overflow	(50,200)	
Imlay Pumping Station	380,000	
Leib Combined Sewer Overflow	(22,200)	
North Service Center Pumping Station	(90,000)	
Oakwood Combined Sewer Overflow	(17,300)	
Puritan Fenkell Combined Sewer Overflow	(5,300)	
Wastewater Dewatering Process	(47,900)	
Wastewater Director	(16,000)	
Wastewater Operations	(70,300)	
Wastewater Secondary Process	(68,300)	
Southwest Water Plant	170,000	
Water Director	50,000	
Unallocated Reserve	247,300	
Administrative Services Unallocated Reserves	(46,000)	
Wastewater System Operations Unallocated Reserves	302,600	
Water System Operations Unallocated Reserves	(9,300)	
Utilities	9,597,700	
BDF, COF & Hauling	159,200	
Oakwood Combined Sewer Overflow	782,500	Increased water bills primarily due to new water billing structure (\$400k); Increased volume of sewage disposal (\$400k)
Wastewater Operations	7,456,000	Increased water bills primarily due to new water billing structure.
West Service Center Pumping Station	200,000	
Southwest Water Plant	(50,000)	
Springwells Water Plant	900,000	Electricity supplier has changed billing for energy generation which has resulted in an increase to the charge for kWh.
Water Works Park	150,000	
Grand Total	12,700,000	

Totals may be off due to rounding

Great Lakes Water Authority

Resolution 2023-067

Resolution Adopting the Budget Amendments through the Second Quarter of FY 2023

By Board Member:

WHEREAS The Great Lakes Water Authority (“GLWA” or the “Authority”) assumed the operation of the regional water and sewer systems on January 1, 2016 (the “Effective Date”) pursuant to Water System and Sewer System Lease Agreements between the GLWA and the City of Detroit dated June 12, 2015; and

WHEREAS In accordance with the by-laws of the GLWA, further defined by its budget amendment policy, the Board shall amend the budget as needed based upon a quarterly report from the Chief Financial Officer; and

WHEREAS The GLWA Board adopted the FY 2023 budget on February 23, 2022, for the twelve-month fiscal year beginning July 1, 2022;

WHEREAS Following a review of the budget amendment report through the FY 2023 Second Quarter, the appropriations established with the adoption of the general operating budget for the water system and the sewer system are amended as shown in the table below;

General Operating				
Appropriation Category				
	Water System		Sewer System	
Revenues	Adopted	Amended	Adopted	Amended
Suburban Wholesale Customer Charges	\$ 333,219,000	\$ 332,113,300	\$ 280,824,000	275,407,200
Less: Bad Debt	(1,257,000)	No Change	(5,420,500)	(1,000,000)
Retail Service Charges	22,985,900	22,834,300	191,042,200	No Change
Industrial Waste Control Charges	-	-	8,420,000	No Change
Pollutant Surcharges	-	-	4,950,800	No Change
Investment Earnings	948,700	9,670,200	1,155,600	13,532,100
Other Revenues	175,000	875,000	400,000	1,170,000
Total Revenues	<u>\$ 356,071,600</u>	<u>\$ 364,235,800</u>	<u>\$ 481,372,100</u>	<u>\$ 493,522,300</u>
Revenue Requirements				
Operations & Maintenance Expense	\$ 144,847,700	149,147,700	\$ 184,052,600	\$ 203,222,500
General Retirement System Legacy Pension	6,048,000	No Change	10,824,000	No Change
Debt Service	150,337,100	150,055,300	205,638,100	212,509,100
General Retirement System Accelerated Pension	6,268,300	No Change	11,620,700	No Change
Extraordinary Repair & Replacement Deposit	-	No Change	-	No Change
Water Residential Assistance Program Contribution	1,770,500	No Change	2,394,200	No Change
Regional System Lease	22,500,000	No Change	27,500,000	No Change
DWSD Budget Shortfall Pending	-	No Change	-	No Change
Improvement & Extension Fund Transfer	24,300,000	28,446,000	39,342,500	25,451,800
Total Revenue Requirements	<u>\$ 356,071,600</u>	<u>\$ 364,235,800</u>	<u>\$ 481,372,100</u>	<u>\$ 493,522,300</u>

WHEREAS Following a review of the budget amendment report through the FY 2023 Second Quarter, the appropriations established with the adoption of the amounts necessary to pay the principal of and interest on all Regional bonds and to restore any reserves therefore established in the Master Bond Ordinance for the water system and the sewer system are amended as shown in the table below;

Debt Service Coverage Calculation				
Appropriation Category	Water System		Sewer System	
	Adopted	Amended	Adopted	Amended
Debt Service by Lien				
Senior Lien Bonds	135,939,700	133,773,100	149,780,900	153,194,800
Second Lien Bonds	47,200,100	50,117,200	36,738,500	39,847,100
SRF Junior Lien Bonds	10,061,800	8,874,400	51,084,400	51,354,800
Total Debt Service	\$ 193,201,600	\$ 192,764,700	\$ 237,603,800	\$ 244,396,700

WHEREAS Following a review of the budget amendment report through the FY 2023 Second Quarter, the appropriations established with the adoption of the improvement and extension fund budget for the water system and the sewer system are amended as shown in the table below;

Improvement & Extension Fund				
Appropriation Category	Water System		Sewer System	
	Adopted	Amended	Adopted	Amended
Revenues				
Transfers In from General Operating	\$ 24,300,000	\$ 28,446,000	\$ 39,342,500	\$ 25,451,800
Receipt of DWSD Shortfall Loan	-	-	-	-
Earnings on Investments	-	2,768,700	-	3,395,700
Net Use of Reserves	19,888,000	11,296,100	5,549,500	90,600
Total Revenues	\$ 44,188,000	\$ 42,510,800	\$ 44,892,000	\$ 28,938,100
Expenditures				
Water/Sewer System Revenue Transfers Out	\$ -	\$ 2,768,700	\$ -	\$ 3,395,700
Capital Spending - Other	-	-	-	2,389,700
Capital Outlay	15,452,600	No Change	18,447,100	16,542,400
Revenue Financed Capital - Operating				
Transfer to Construction Fund	28,735,400	24,289,500	26,444,900	6,610,300
Total Expenditures	\$ 44,188,000	\$ 42,510,800	\$ 44,892,000	\$ 28,938,100

WHEREAS Following a review of the budget amendment report through the FY 2023 Second Quarter, the appropriations established with the adoption of the construction fund budget for the water system and the sewer system are amended as shown in the table below;

Construction Fund					
Appropriation Category					
Revenues	Water System		Sewer System		
	Adopted	Amended	Adopted	Amended	
Transfer from Improvement & Extension Fund	\$ 28,735,400	24,289,500	\$ 26,444,900	6,610,300	
Bond Proceeds	-	225,000,000	-	225,000,000	
Grant Revenues (SRF Loans)	54,992,000	82,867,000	18,720,000	39,750,000	
Earnings on Investments	128,800	4,565,800	86,200	4,803,800	
Net (Use) Increase of Reserves	71,644,800	(110,932,300)	49,197,900	(139,111,800)	
Total Revenues	<u>\$ 155,501,000</u>	<u>\$ 225,790,000</u>	<u>\$ 94,449,000</u>	<u>\$ 137,052,300</u>	
Expenditures					
Project Expenditures	\$ 194,376,000	225,790,000	\$ 125,932,000	137,052,300	
Capital Spend Rate Adjustment	\$ (38,875,000)	-	\$ (31,483,000)	-	
Total Expenditures	<u>\$ 155,501,000</u>	<u>\$ 225,790,000</u>	<u>\$ 94,449,000</u>	<u>\$ 137,052,300</u>	
Capital Spending Ratio	80.0%	116.2%	75.0%	110.7%	

WHEREAS The GLWA Audit Committee reviewed the budget amendments at its meeting on February 24, 2023; and

WHEREAS An affirmative vote of 5 Board Members is necessary for the adoption of this Resolution,

NOW THEREFORE BE IT:

RESOLVED That the GLWA Board approves the FY 2023 Second Quarter Budget Amendments; and be it finally

RESOLVED That the Chief Executive Officer, and the Chief Financial Officer/Treasurer are authorized to take such other action as may be necessary to accomplish the intent of this resolution.



Financial Services Audit Committee Communication

Date: February 24, 2023

To: Great Lakes Water Authority Audit Committee

From: Nick Fedewa, CPA, Acting Public Finance Manager

Re: Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Sewer Disposal System Revenue Bonds in an Amount Not to Exceed \$105,000,000 (Ordinance 2023-01)

Background & Analysis: See attached draft Great Lakes Water Authority ("GLWA") Board letter.

Proposed Action: The GLWA Audit Committee recommends that the Great Lakes Water Authority Board approve the resolution for the Approval of Series Ordinance Authorizing Issuance and Sale of Sewer Disposal System Revenue Bonds in an Amount Not to Exceed \$105,000,000 for GLWA 5836-01 Pump Station No. 1 Improvements.

DRAFT for Audit Committee Review Only

..Title

Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Sewer Disposal System Revenue Bonds in an Amount Not to Exceed \$105,000,000 (Ordinance 2023-01)

..Body

Agenda of: March 22, 2023
Item No.: **2023-065**
Amount: Not to Exceed \$105,000,000

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Suzanne R. Coffey, P.E.
Chief Executive Officer
Great Lakes Water Authority

DATE: March 22, 2023

RE: Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Sewer Disposal System Revenue Bonds in an Amount Not to Exceed \$105,000,000 (Ordinance 2023-01)

MOTION

Upon recommendation of Nicolette N. Bateson, Chief Financial Officer & Treasurer, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), **approves the resolution related to the Approval of Series Ordinance Authorizing Issuance and Sale of Sewer Disposal System Revenue Bonds in an Amount Not to Exceed \$105,000,000 as presented**, and authorizes the Chief Executive Officer to take such other action as may be necessary to accomplish the intent of this vote.

DRAFT for Audit Committee Review Only

BACKGROUND

There are two considerations in the background related to this resolution: financing and the project being funded.

Financing Considerations

The amount being financed with revenue bonds via the Clean Water State Revolving Fund (CWSRF) Bonds is within authorized GLWA limits. On July 29, 2022 the Great Lakes Water Authority (“GLWA”) Board of Directors approved Resolution 2022-312, “Resolution of the Great Lakes Water Authority Authorizing Publication of Notice of Intent to Issue Sewerage Disposal System Revenue Bonds” in a principal amount not to exceed \$650,000,000 (the “Notice of Intent”). This is the first series of sewer bonds from that Notice of Intent and is in the amount not to exceed \$105,000,000.

The proposed action authorizes the bonds to be issued. The approval of the series ordinance presented today is the next formal step required by the GLWA Board of Directors in the bond issuance process. The series ordinance authorizes the issuance of the Bonds by GLWA, sets forth the guidelines for the CWSRF Bonds, designates the Bonds as 2023 SRF-1 Junior Lien Bonds, and authorizes the Chief Executive Officer or the Chief Financial Officer to execute the final terms of the Bonds, paying issuance costs and signing of the Purchase Contract and Sale Order, within the parameters set forth in the Series Ordinance.

Project Considerations

Project Plan Approval - On May 25, 2022, the GLWA Board of Directors conducted a [public hearing](#) related to the Water Resource Recovery Facility (WRRF) Improvements Projects - FY 2023 State Revolving Fund (SRF) Project. Subsequent to that public hearing, the Board adopted the [project plan](#).

Project Plan Cost Estimate – It should be noted that the costs for the project plan were estimated at approximately \$95.6 million in the documents presented in May 2022. The proposed series ordinance not to exceed amount of \$105.0 million differs from this estimate of \$95.6 million to allow for any fluctuation in the final award amount.

DRAFT for Audit Committee Review Only

JUSTIFICATION

The bond series authorized by this ordinance will support a Regional Sewer System project involving Pump Station No. 1 Improvements. Pump Station No. 1 was originally constructed about 80 years ago and improvements are needed to ensure reliable service of the pumping equipment.

The 2023 SRF-1 Junior Lien Bonds will be sold through the Michigan Finance Authority under the state of Michigan's CWSRF program (Project #5836-01). The current interest rates for the CWSRF program are 1.875% for 20-year and 2.125% for 30-year loans. Potential dollar savings are significant when compared to municipal bond interest rates in a market-based transaction. By way of example, the GLWA ten-year financial plan utilizes an estimated interest rate of 5.0% for future debt. Compared to that estimated rate of 5%, potential interest savings on a 20-year SRF loan would be \$37.9 million and savings on a 30-year loan would be \$56.3 million based on a CWSRF loan amount of \$95.6 million.

Another advantage of SRF is that interest costs are only incurred on the amount drawn from the SRF loans as project expenditures are incurred. This results in additional debt service savings early in the term of the loan compared to market-based transactions. Further, use of SRF funding as junior lien does not impact GLWA debt reserve requirements.

BUDGET IMPACT

The debt service payments on the GLWA Regional project are anticipated to start on October 1, 2023 with minimal amounts of interest due, because of the projected draw down schedules. An estimate for debt service on the loan will be included in the biennial FY 2024 Water Budget as well as GLWA's current ten-year forecast.

COMMITTEE REVIEW

This matter was reviewed by the GLWA Audit Committee at its meeting on March 22, 2023. The Audit Committee *[insert action]* of the resolution for the Approval of Series Ordinance Authorizing Issuance and Sale of Sewer Disposal System Revenue Bonds in an Amount Not to Exceed \$105,000,000 as presented.

GREAT LAKES WATER AUTHORITY
ORDINANCE NO. 2023-01

**SERIES ORDINANCE AUTHORIZING ISSUANCE AND SALE OF
SEWAGE DISPOSAL SYSTEM REVENUE BONDS IN
AN AGGREGATE AMOUNT NOT TO EXCEED \$105,000,000**

WHEREAS, pursuant to Resolution No. 2015-10-03 adopted by the Board of Directors of the Great Lakes Water Authority (the “Authority”) on October 7, 2015, the Authority Board approved and adopted Master Bond Ordinance No. 2015-02 (as subsequently amended through the date hereof, the “Ordinance”), which authorizes the issuance by the Authority of Sewage Disposal System Revenue Bonds; and

WHEREAS, the Ordinance authorizes the issuance of such Sewage Disposal System Revenue Bonds in one or more Series pursuant to a Series Ordinance authorizing the issuance and sale of such Series; and

WHEREAS, the Authority Board has determined that it is necessary to authorize at this time one or more Series of SRF Junior Lien Bonds (the “2023 SRF-1 Junior Lien Bonds”) to provide moneys to pay the costs of the hereinafter described repairs, extensions, enlargements and improvements to the Regional Sewer System identified in the Capital Improvement Program (the “2023 SRF-1 Project”).

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF DIRECTORS OF THE GREAT LAKES WATER AUTHORITY AS FOLLOWS:

Section 1. Authority for this Series Ordinance. This Series Ordinance (the “2023 SRF-1 Series Ordinance”) is adopted pursuant to Section 1102(1) of the Ordinance.

Section 2. Definitions. Except as otherwise provided in this 2023 SRF-1 Series Ordinance, all terms which are defined in Section 101 of the Ordinance shall have the same meanings, respectively, in this 2023 SRF-1 Series Ordinance as such terms are given in the Ordinance. In addition, the following terms shall have the following meanings unless the context shall clearly indicate some other meaning:

(a) “2023 SRF-1 Junior Lien Bonds” means the Bonds authorized by Section 5 of this 2023 SRF-1 Series Ordinance for the purpose of paying and/or reimbursing costs of the 2023 SRF-1 Project.

(b) “2023 SRF-1 Project” means improvements to the Regional Sewer System, including but not limited to improvements to the existing Pump Station No. 1 located at the Water Resources Recovery Facility. The improvements include but are not limited to rehabilitation of the existing pumping system, piping and valves; HVAC and building improvements; electrical, instrumentation and controls upgrades; project improvements related to restoration (streets, rights-of-way and easements) as well as all work, equipment and appurtenances necessary or incidental to such improvements.

(c) “Authorized Denomination” means any denomination as determined by an Authorized Officer in the Sale Order.

(d) “Authorized Officer” means either the Chief Executive Officer or the Chief Financial Officer. In accordance with Resolution 2021-330 adopted by the Authority Board on August 11, 2021, references herein to Chief Executive Officer shall be deemed to include any duly appointed Interim Chief Executive Officer.

(e) “Interest Payment Date” means except as otherwise set forth in the Sale Order each April 1 and October 1.

(f) “Maturity Date” means such dates of maturity of the 2023 SRF-1 Junior Lien Bonds as determined in the Sale Order.

(g) “MFA” means the Michigan Finance Authority.

(h) “Person” means any natural person, association, corporation, trust, partnership, joint venture, joint-stock company, municipal corporation, public body or other entity, however organized.

(i) “Project Costs” means the costs of acquiring, constructing, equipping, installing and financing the 2023 SRF-1 Project, including Issuance Costs relating to the 2023 SRF-1 Junior Lien Bonds.

(j) “Purchase Contract” means the Purchase Contract between the MFA and the Authority with respect to the purchase by the MFA and the sale by the Authority of a Series of the 2023 SRF-1 Junior Lien Bonds.

(k) “Regional Construction Fund, Series 2023 SRF-1” means a subaccount of the Construction Fund established in accordance with Section 11 of this 2023 SRF-1 Series Ordinance relating to the construction of the 2023 SRF-1 Project to be paid with the proceeds of the 2023 SRF-1 Junior Lien Bonds.

(l) “Regular Record Date” means except as otherwise set forth in the Sale Order the fifteenth day of the calendar month immediately preceding an Interest Payment Date.

(m) “Sale Order” means any one or more Sale Orders of an Authorized Officer authorizing acts consistent with the Ordinance and this 2023 SRF-1 Series Ordinance necessary and appropriate to complete the sale, execution and delivery of the 2023 SRF-1 Junior Lien Bonds and to complete the other transactions contemplated herein.

(n) “Supplemental Agreement” means the Supplemental Agreement among the Authority, the MFA and the State of Michigan acting through the Department of Environment, Great Lakes, and Energy, with respect to the 2023 SRF-1 Junior Lien Bonds.

(o) “Taxable 2023 SRF-1 Junior Lien Bonds” means any 2023 SRF-1 Junior Lien Bonds other than Tax-Exempt 2023 SRF-1 Junior Lien Bonds.

(p) “Tax-Exempt 2023 SRF-1 Junior Lien Bonds” means any 2023 SRF-1 Junior Lien Bonds that are Tax-Exempt Bonds.

Section 3. Approval of 2023 SRF-1 Project. It is hereby determined to be necessary for the public health, benefit and welfare of the area served by the Regional Sewer System to acquire, construct and undertake the 2023 SRF-1 Project, and the 2023 SRF-1 Project is hereby approved and accepted.

Section 4. Estimated Cost and Period of Usefulness of 2023 SRF-1 Project. The Project Costs are estimated by the Authority Board to be \$103,819,561 and the Project Costs are hereby approved and confirmed. The period of usefulness of the 2023 SRF-1 Project is estimated to be not less than 40 years.

Section 5. Authorization of 2023 SRF-1 Junior Lien Bonds.

(a) Authorization of Borrowing. The Authority may borrow an amount not in excess of \$105,000,000, as is finally determined in the Sale Order, and issue the 2023 SRF-1 Junior Lien Bonds in one or more Series, all to evidence such borrowing pursuant to Act 233, Act 94 and the Ordinance, as 2023 SRF-1 Junior Lien Bonds, all as finally determined in the Sale Order. The amount of the 2023 SRF-1 Junior Lien Bonds authorized in this Section 5(a) shall include the amount of the net original issue premium, if any.

(b) Purpose of 2023 SRF-1 Junior Lien Bonds. The 2023 SRF-1 Junior Lien Bonds shall be issued as Additional Bonds for the purpose of paying and/or reimbursing Project Costs.

(c) Priority of Lien. The 2023 SRF-1 Junior Lien Bonds shall be issued as SRF Junior Lien Bonds.

(d) Insufficient Proceeds. To the extent that proceeds of SRF-1 Junior Lien Bonds are insufficient to pay Project Costs, the insufficiency shall be paid from the proceeds of future Additional Bonds, if any, and/or moneys of the Regional Sewer System on hand and legally available therefor, as determined by the Authority Board.

(e) Taxable and Tax-Exempt 2023 SRF-1 Junior Lien Bonds. The 2023 SRF-1 Junior Lien Bonds may be issued as Taxable 2023 SRF-1 Junior Lien Bonds or Tax-Exempt 2023 SRF-1 Junior Lien Bonds, or as separate subseries of both, as set forth in the Sale Order.

(f) Source of Payment and Security. The 2023 SRF-1 Junior Lien Bonds shall be payable and secured as provided in Section 8.

(g) Applicability of Ordinance. Except as otherwise provided in this 2023 SRF-1 Series Ordinance or in the Sale Order, all of the provisions of the Ordinance shall apply to the 2023 SRF-1 Junior Lien Bonds as if set forth in full in this 2023 SRF-1 Series Ordinance, the purpose of this 2023 SRF-1 Series Ordinance being to supplement the Ordinance to authorize the issuance of 2023 SRF-1 Junior Lien Bonds for the purposes set forth herein.

Section 6. 2023 SRF-1 Junior Lien Bond Details.

(a) Designation.

- (1) The 2023 SRF-1 Junior Lien Bonds shall bear the designations Sewage Disposal System Revenue Bonds, Series 2023-SRF-1 and shall include such other designations, including, without limitation, designations for multiple subseries, as determined by an Authorized Officer as shall be set forth in the Sale Order and not inconsistent with the Ordinance or this 2023 SRF-1 Series Ordinance.
- (2) If the 2023 SRF-1 Junior Lien Bonds are not issued in 2023, an Authorized Officer is authorized in her discretion to re-designate the year and Series designation of such Series of 2023 SRF-1 Junior Lien Bonds and the various funds and accounts established hereunder to correspond with the year of issuance of such Series of 2023 SRF-1 Junior Lien Bonds. Furthermore, an Authorized Officer is authorized to establish designations within the various funds and accounts established hereunder if necessary in order to differentiate such funds and accounts from other similarly named funds and accounts related to other Bonds.

(b) Numbering. The 2023 SRF-1 Junior Lien Bonds shall be numbered in such manner as shall be determined in the Sale Order.

(c) Principal. The 2023 SRF-1 Junior Lien Bonds shall be issued in the form of Serial Bonds or Term Bonds, or any combination of Serial Bonds and Term Bonds, in any Authorized Denomination, and the principal thereof shall mature on October 1, or such other date as set forth in the Sale Order, in such years and amounts, and shall be or not be subject to redemption prior to maturity, all as shall be determined in the Sale Order subject to the following limitations:

- (1) No 2023 SRF-1 Junior Lien Bonds shall mature later than 40 years after the date of issuance thereof.
- (2) The 2023 SRF-1 Junior Lien Bonds shall only be issued with annual principal and interest installments permitted by the Ordinance, including Section 207 thereof.

(d) Interest. 2023 SRF-1 Junior Lien Bonds or portions thereof shall bear interest at a rate or rates as set forth in the Sale Order not in excess of 2.50% per annum. Interest on 2023 SRF-1 Junior Lien Bonds shall be payable on each Interest Payment Date.

(e) Payment of Principal and Interest. The principal of, premium, if any, and interest on the 2023 SRF-1 Junior Lien Bonds shall be payable in lawful money of the United States. Except as otherwise provided in the Sale Order, so long as the 2023 SRF-1 Junior Lien Bonds are owned by the MFA, the 2023 SRF-1 Junior Lien Bonds are payable as to principal, redemption premium, if any, and interest at U.S. Bank Trust Company, National Association, or at such other place as shall be designated in writing to the Authority by the MFA (the MFA's Depository"), and the Authority agrees that it will deposit with the MFA's Depository payments of the principal of,

premium, if any, and interest on the 2023 SRF-1 Junior Lien Bonds in immediately available funds by 12:00 noon at least five Business Days prior to the date on which any such payment is due, whether by maturity, redemption or otherwise. If the 2023 SRF-1 Junior Lien Bonds are not registered in the name of the MFA, the principal of and premium, if any, on the 2023 SRF-1 Junior Lien Bonds are payable upon the surrender thereof at the corporate trust office of the Trustee and the interest is payable by check or draft drawn on the Trustee and mailed to the registered owners as of the immediately preceding Regular Record Date at their address shown on the registration books of the Authority maintained by the Trustee.

(f) Dating. The 2023 SRF-1 Junior Lien Bonds shall be dated such date as determined in the Sale Order.

(g) Reserve Requirement. There shall be no Reserve Requirement with respect to the 2023 SRF-1 Junior Lien Bonds.

(h) Exchange. The registered owner of any 2023 SRF-1 Junior Lien Bond may exchange such 2023 SRF-1 Junior Lien Bond for a new 2023 SRF-1 Junior Lien Bond or Bonds of the same interest rate, maturity and Priority of Lien in an equal aggregate principal amount in one or more of the Authorized Denominations by surrendering such 2023 SRF-1 Junior Lien Bond to be exchanged at the designated office of the Trustee together with an assignment duly executed by the registered owner thereof or his attorney or legal representative in such form as shall be satisfactory to the Trustee. As provided in Section 206 of the Ordinance, the Trustee shall be responsible for the registration, transfer and exchange of 2023 SRF-1 Junior Lien Bonds and shall indicate its acceptance of such duties by a document filed with an Authorized Officer concurrently with the delivery of the 2023 SRF-1 Junior Lien Bonds.

(i) Execution and Delivery of 2023 SRF-1 Junior Lien Bonds. The 2023 SRF-1 Junior Lien Bonds shall be executed in the name of the Authority by manual or facsimile signature of the Chief Executive Officer of the Authority and countersigned by the manual or facsimile signature of the Secretary of the Authority Board, and shall have the Authority's seal or facsimile thereof affixed or printed thereon. The Chief Financial Officer is authorized to deliver the 2023 SRF-1 Junior Lien Bonds to the MFA upon receiving the purchase price therefor in lawful money of the United States.

(j) Form of 2023 SRF-1 Junior Lien Bonds. The 2023 SRF-1 Junior Lien Bonds shall be in substantially the following form, subject to such changes, additions or deletions as determined by the Chief Executive Officer within the parameters of this 2023 SRF-1 Series Ordinance:

R-__

**UNITED STATES OF AMERICA
STATE OF MICHIGAN
COUNTIES OF MACOMB, OAKLAND AND WAYNE
GREAT LAKES WATER AUTHORITY
SEWAGE DISPOSAL SYSTEM REVENUE BOND,
SERIES 2023-SRF-1**

REGISTERED OWNER: Michigan Finance Authority

PRINCIPAL AMOUNT: \$ _____

INTEREST RATE: _____%

ORIGINAL ISSUE DATE:

The Great Lakes Water Authority, Counties of Macomb, Oakland and Wayne, State of Michigan (the “Issuer”), upon authorization from the Board of Directors of the Issuer (the “Board”), has issued this Bond. The Issuer, for value received, promises to pay, in lawful money of the United States of America, but only from the Pledged Assets (as defined below), to the Registered Owner named above, or registered assigns, the Principal Amount stated above, or so much thereof as shall have been advanced to the Issuer and not prepaid or reduced pursuant to a Purchase Contract between the Issuer and the Michigan Finance Authority (the “MFA”), a Supplemental Agreement by and among the Issuer, the MFA and State of Michigan acting through the Department of Environment, Great Lakes, and Energy and the Order of Approval issued by the Department of Environment, Great Lakes, and Energy. The Principal Amount shall be payable on the dates and in the principal installments set forth in Schedule A attached hereto.

In the event less than the Principal Amount of this Bond is disbursed by the MFA, any portion of the Principal Amount is prepaid as provided herein, or any serial principal payment becomes due before the Issuer has received proceeds from corresponding purchased principal installments of at least a like amount, then the MFA may prepare a new serial principal installment repayment schedule which shall be presented to the Issuer and be effective upon receipt as provided in the Purchase Contract.

Interest on this Bond shall accrue from the Original Issue Date set forth above at the Interest Rate set forth above, only on that portion of installments of the Principal Amount which have been disbursed by the MFA, shall be payable on _____, 20__ and semiannually on each April 1 and October 1 thereafter (each an “Interest Payment Date”).

If the MFA is not the registered owner of this Bond, principal of this Bond is payable upon presentation and surrender at the designated office of U.S. Bank Trust Company, National Association, as Trustee under the Ordinance (as defined below) or such other trustee as the Issuer may hereafter designate by notice mailed to the registered owner not less than 60 days prior to any Interest Payment Date (the “Trustee”).

Interest on this Bond is payable to the registered owner of record as of the close of business on the 15th day of the month immediately preceding any Interest Payment Date as shown on the registration books kept by the Trustee by check or draft mailed by the Trustee to the registered owner at the registered address. Interest on this Bond shall be computed on the basis of a 360-day year comprised of twelve 30-day months. During the time funds are being drawn down by the Issuer under this Bond, the MFA will periodically provide the Issuer with a statement showing the amount of principal that has been advanced and the date of each advance, which statement shall constitute prima facie evidence of the reported information; provided, that no failure on the part of the MFA to provide such a statement or to reflect a disbursement or the correct amount of a disbursement shall relieve the Issuer of its obligation to repay the outstanding principal amount actually advanced [(subject to any principal forgiveness as provided for herein)], all accrued interest thereon, and any other amount payable with respect thereto in accordance with the terms of this Bond.

In the event of a default in the payment of principal or interest hereon when due, whether at maturity, by redemption or otherwise, the amount of such default shall bear interest (the "additional interest") at a rate equal to the rate of interest that is two percent above the MFA's cost of providing funds (as determined by the MFA) to make payment on the bonds of the MFA issued to provide funds to purchase this Bond but in no event in excess of the maximum rate of interest permitted by law. The additional interest shall continue to accrue until the MFA has been fully reimbursed for all costs incurred by the MFA (as determined by the MFA) as a consequence of the Issuer's default. Such additional interest shall be payable on the interest payment date following demand of the MFA. In the event that (for reasons other than the default in the payment of any municipal obligation purchased by the MFA) the investment of amounts in the reserve account established by the MFA for the bonds of the MFA issued to provide funds to purchase this bond fails to provide sufficient available funds (together with any other funds that may be made available for such purpose) to pay the interest on outstanding bonds of the MFA issued to fund such account, the Issuer shall and hereby agrees to pay on demand only the Issuer's pro rata share (as determined by the MFA) of such deficiency as additional interest on this Bond.

Notwithstanding any other provision of this Bond, so long as the MFA is the owner of this Bond, (a) this Bond is payable as to principal, premium, if any, and interest at U.S. Bank Trust Company, National Association, or at such other place as shall be designated in writing to the Issuer by the MFA (the "MFA's Depository"); (b) the Issuer agrees that it will deposit with the MFA's Depository payments of the principal of, premium, if any, and interest on this Bond in immediately available funds by 12:00 noon at least five business days prior to the date on which any such payment is due whether by maturity, redemption or otherwise; in the event that the MFA's Depository has not received the Issuer's deposit by 12:00 noon on the scheduled day, the Issuer shall immediately pay to the MFA as invoiced by the MFA an amount to recover the MFA's administrative costs and lost investment earnings attributable to that late payment; and (c) written notice of any redemption of this Bond shall be given by the Issuer and received by the MFA's Depository at least 40 days prior to the date on which redemption is to be made.

This Bond is one of a series of bonds designated "Sewage Disposal System Revenue Bonds, Series 2023-SRF-1" and is issued pursuant to the provisions of (i) Act 233, Public Acts of Michigan, 1955, as amended ("Act 233"), and Act 94, Public Acts of Michigan, 1933, as amended ("Act 94"), (ii) Master Bond Ordinance No. 2015-02 adopted by the Board on October 7, 2015, as

amended (the “Bond Ordinance”), (iii) the Series Ordinance Authorizing Issuance and Sale of Sewage Disposal System Revenue Bonds in an Aggregate Amount not to Exceed \$105,000,000, adopted by the Board on _____, 2023 (the “Series Ordinance”), and (iv) a Sale Order of the Chief Executive Officer of the Issuer dated _____, 2023 (the “Sale Order,” and, collectively with the Bond Ordinance and the Series Ordinance, the “Ordinance”). This Bond is issued for the purposes set forth in the Series Ordinance and the Sale Order.

For the prompt payment of the principal of and interest on this Bond, and other bonds issued by the Issuer pursuant to the Bond Ordinance, the Issuer has irrevocably pledged the Pledged Assets (as defined in the Bond Ordinance), which includes the revenues of the Sewer System (as defined in the Bond Ordinance), after provision is made for reasonable and necessary expenses of operation, maintenance and administration of the Sewer System (the “Net Revenues”), and a statutory lien on the Net Revenues and Pledged Assets is hereby recognized and acknowledged. Such lien is a third lien, subject to obligations heretofore and hereafter issued or incurred under the Bond Ordinance secured by a first or second lien on the Pledged Assets. This Bond is of equal standing on a parity with all other obligations heretofore and hereafter issued or incurred under the Bond Ordinance and secured by a third lien on the Pledged Assets.

For a complete statement of the revenues from which and the conditions under which this Bond is payable, a statement of the conditions under which Additional Bonds (as defined in the Bond Ordinance) of senior or equal standing and Additional Bonds of junior standing may hereafter be issued and the general covenants and provisions pursuant to which this Bond is issued, reference is made to the Bond Ordinance.

This Bond is subject to redemption prior to maturity at the option of the Issuer and with the prior written consent of and upon such terms as may be required by the MFA. That portion of this Bond called for redemption shall not bear interest after the date fixed for redemption, provided funds are on hand with the Trustee to redeem the same.

THIS BOND IS ISSUED UNDER ACT 233 AND ACT 94. IT IS A SELF-LIQUIDATING BOND AND IS NOT A GENERAL OBLIGATION OF THE ISSUER AND DOES NOT CONSTITUTE AN INDEBTEDNESS OF THE ISSUER WITHIN ANY CONSTITUTIONAL OR STATUTORY LIMITATION, BUT IS PAYABLE, BOTH AS TO PRINCIPAL AND INTEREST SOLELY FROM THE PLEDGED ASSETS OF THE SEWER SYSTEM. THE PAYMENT OF THE PRINCIPAL OF AND INTEREST ON THIS BOND ARE SECURED BY A STATUTORY LIEN ON THE PLEDGED ASSETS AS DESCRIBED HEREIN.

The Issuer has covenanted and agreed, and hereby covenants and agrees, to fix and maintain, or cause to be fixed and maintained, at all times while any bonds payable from the Pledged Assets of the Sewer System shall be outstanding, such rates for service furnished by the Sewer System as shall be sufficient to provide for payment of the interest upon and the principal of this Bond and all other Bonds (as defined in the Bond Ordinance) assumed or issued and to be issued under the Bond Ordinance as and when the same shall become due and payable, to create and maintain a bond redemption fund therefor, including a bond reserve for Bonds other than this Bond, to provide for the payment of expenses of administration and operation and such expenses for maintenance of the Sewer System as are necessary to preserve the same in good repair and

working order, and to provide for such other expenditures and funds for the Sewer System, all as are required by the Bond Ordinance.

This Bond is transferable only upon the books of the Issuer kept for that purpose at the office of the Trustee by the registered owner hereof in person, or by his attorney duly authorized in writing, upon the surrender of this Bond together with a written instrument of transfer satisfactory to the Trustee duly executed by the registered owner or his attorney duly authorized in writing, and thereupon a new registered bond or bonds of the same type, in the same aggregate principal amount and of the same maturity shall be issued to the transferee in exchange therefor as provided in the Ordinance and upon the payment of the charges, if any, therein prescribed.

It is hereby certified and recited that all acts, conditions and things required by law precedent to and in the issuance of this Bond have been done and performed by regular and due time and form as required by law.

This Bond is not valid or obligatory for any purpose until the Trustee's Certificate of Authentication hereon has been executed by the Trustee.

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IN WITNESS WHEREOF, the Great Lakes Water Authority, Counties of Macomb, Oakland and Wayne, State of Michigan, has caused this Bond to be signed in its name by the facsimile signatures of its Chief Executive Officer and its Secretary of the Board and its corporate seal or a facsimile thereof to be printed, impressed or otherwise reproduced hereon, all as of the Original Issue Date.

GREAT LAKES WATER AUTHORITY

By: _____
Chief Executive Officer

Countersigned:

By: _____
Secretary, Board of Directors

[Seal]

CERTIFICATE OF AUTHENTICATION

This Bond is authenticated as the bond designated by the Issuer as “Sewage Disposal System Revenue Bond, Series 2023-SRF-1”.

U.S. Bank Trust Company, National Association,
Trustee

By:_____

Date of Authentication: _____, 2023

ASSIGNMENT

For value received, the undersigned sells, assigns and transfers unto _____ this Bond and all rights hereunder and hereby irrevocably appoints _____ attorney to transfer this Bond on the books kept for registration thereof with full power of substitution in the premises.

Dated: _____

Signature

NOTICE: The signature to this assignment must correspond with the name as it appears on the face of this Bond in every particular.

Schedule A

The principal amounts and maturity dates applicable to the Bond to which this Schedule A is attached are as follows:

Date

Amount

Based on the schedule provided above unless revised as provided in this paragraph, repayment of the Principal Amount shall be made according to such schedule until the full Principal Amount disbursed to the Issuer is repaid; provided, however, that the Issuer shall have no obligation to repay any serial principal installment for which the Issuer did not receive a disbursement of Principal Amount by the date such serial principal installment is due. In the event the Order of Approval issued by the Department of Environment, Great Lakes, and Energy (the "Order") approves a principal amount of assistance less than the amount of the Bond, the MFA shall only disburse principal up to the amount stated in the Order. In the event (1) that the payment schedule described above provides for payment of a total principal amount greater than the amount of assistance approved by the Order, (2) that less than the principal amount of assistance approved by the Order is disbursed to the Issuer by the MFA or (3) of prepayment [or principal forgiveness] of the Bond, the MFA shall prepare a new payment schedule that shall be effective upon receipt by the Issuer.

END OF BOND FORM

Section 7. Concerning the Securities Depository.

(a) As used herein:

“Beneficial Owner” means any Person who indirectly owns 2023 SRF-1 Junior Lien Bonds pursuant to the indirect ownership system maintained by a securities depository (the “Securities Depository”) and its Participants, commonly known as the “Book-Entry Only System.”

“Participant” means any Person whose ownership of 2023 SRF-1 Junior Lien Bonds is shown on books of the Securities Depository.

(b) The 2023 SRF-1 Junior Lien Bonds will initially be registered in the name of the MFA, or such other purchasers as designated in the Sale Order. In the event 2023 SRF-1 Junior Lien Bonds are later to be registered in the name of a Securities Depository or its nominee, neither the Authority nor the Trustee shall have any responsibility or obligation to any Participant or to any Beneficial Owner with respect to any matter, including the following:

- (1) the accuracy of the records of the Securities Depository, its nominee or any Participant with respect to any ownership interest in 2023 SRF-1 Junior Lien Bonds,
- (2) the delivery to any Participant, Beneficial Owner or any other Person other than the Securities Depository of any notice with respect to: any 2023 SRF-1 Junior Lien Bonds, including any notice of redemption, or
- (3) the payment to any Participant, Beneficial Owner or any other Person, other than the Securities Depository of any amount with respect to the principal (and premium, if any) of or interest on any 2023 SRF-1 Junior Lien Bonds.

(c) The Trustee shall pay all principal (and premium, if any) of and interest on the 2023 SRF-1 Junior Lien Bonds only to or upon the order of the MFA, or the Securities Depository, as applicable, and all such payments shall be valid and effective fully to satisfy and discharge the Authority’s obligations with respect to the principal (and premium, if any) of, and interest on such 2023 SRF-1 Junior Lien Bonds to the extent of the sum or sums so paid.

(d) If 2023 SRF-1 Junior Lien Bonds become registered in the name of the Securities Depository and (1) the Authority receives a written notice from the Securities Depository to the effect the Securities Depository is unable or unwilling to discharge its responsibilities or (2) the Authority determines that it is in the best interests of the Beneficial Owners of 2023 SRF-1 Junior Lien Bonds that they be able to obtain 2023 SRF-1 Junior Lien Bonds in certificated form, then, in either event, the Authority shall notify the Trustee and, in the case of clause, (2), the Securities Depository.

(e) Upon discontinuance of the use of the Book-Entry Only System maintained by the Securities Depository, if any, pursuant to subsection (d), above and upon receipt of notice from the Securities Depository containing sufficient information, the Authority shall execute and the Trustee shall authenticate and deliver 2023 SRF-1 Junior Lien Bonds in certificated form to

Beneficial Owners in exchange for the beneficial interests of such Beneficial Owners in corresponding principal amounts and in any Authorized Denominations.

(f) Notwithstanding any other provision of this 2023 SRF-1 Series Ordinance to the contrary, so long as any 2023 SRF-1 Junior Lien Bond is registered in the name of the Securities Depository or its nominee:

- (1) all payments with respect to the principal, premium, if any, and interest on such 2023 SRF-1 Junior Lien Bond and all notices of redemption, tender and otherwise with respect to such 2023 SRF-1 Junior Lien Bond shall be made and given, respectively, to the Securities Depository as provided in the letter of representations from the Authority to the Securities Depository with respect to such 2023 SRF-1 Junior Lien Bonds or any master letter of representations from the Authority to the Securities Depository;
- (2) if less than all of the 2023 SRF-1 Junior Lien Bonds of the same type of any maturity are to be redeemed, then the particular 2023 SRF-1 Junior Lien Bonds or portions of 2023 SRF-1 Junior Lien Bonds of such type and maturity to be redeemed shall be selected by the Securities Depository in any such manner as the Securities Depository may determine;
- (3) all payments with respect to principal of the 2023 SRF-1 Junior Lien Bonds and premium, if any and interest on the 2023 SRF-1 Junior Lien Bonds shall be made in such manner as shall be prescribed by the Securities Depository; and
- (4) if a 2023 SRF-1 Junior Lien Bond is redeemed or tendered in part, then all amounts payable in respect of such redemption or tender shall be paid without presentation and surrender of such 2023 SRF-1 Junior Lien Bond pursuant to the procedures of the Securities Depository.

Section 8. Payment of 2023 SRF-1 Junior Lien Bonds; Confirmation of Statutory Lien.

(a) The 2023 SRF-1 Junior Lien Bonds and the interest thereon shall be payable solely from the Pledged Assets.

(b) To secure payment of the 2023 SRF-1 Junior Lien Bonds, the statutory lien upon the whole of the Pledged Assets established by Act 94 and the pledge created in Section 501 of the Ordinance is hereby confirmed in favor of the 2023 SRF-1 Junior Lien Bonds as follows: Such lien in favor of the 2023 SRF-1 Junior Lien Bonds shall be a statutory third lien on the Pledged Assets of equal standing and Priority of Lien with all issued, to be issued and outstanding SRF Junior Lien Bonds.

Section 9. Funds and Accounts; Flow of Funds. Except as otherwise provided in this 2023 SRF-1 Series Ordinance, all of the provisions relative to funds and accounts, their maintenance, the flow of funds and other details relative thereto, shall remain as specifically set forth in the Ordinance.

Section 10. Disposition of Proceeds.

(a) Disposition of Accrued Interest and Capitalized Interest. From the proceeds of the sale of the 2023 SRF-1 Junior Lien Bonds there shall be immediately deposited in the SRF Junior Lien Debt Service Account, an amount equal to any accrued interest received on the delivery of the 2023 SRF-1 Junior Lien Bonds and any capitalized interest on the 2023 SRF-1 Junior Lien Bonds, and the Authority may take credit for the amount so deposited against the amount required to be deposited in the SRF Junior Lien Debt Service Account for payment of the next maturing interest payment on the 2023 SRF-1 Junior Lien Bonds.

(b) Construction Fund. The balance of the proceeds of the 2023 SRF-1 Junior Lien Bonds shall be deposited in the Construction Fund and used to pay Project Costs as provided in Section 11.

Section 11. Construction Fund.

(a) A subaccount of the Authority Regional Construction Account of the Construction Fund established by the Ordinance shall be established for the 2023 SRF-1 Junior Lien Bonds and designated the "Construction Fund, Series 2023 SRF-1," and shall be established and maintained as a separate depository account with a Custodian as designated by the Chief Financial Officer.

(b) Moneys in the Construction Fund, Series 2023 SRF-1 shall be applied solely to payment of Project Costs (or to the reimbursement of Project Costs paid by the Authority from other funds prior to the issuance of the 2023 SRF-1 Junior Lien Bonds).

(1) Payments or reimbursements for Project Costs for construction, either on account or otherwise, shall not be made unless the registered engineer in charge of such work shall file with an Authorized Officer a signed statement to the effect that the work has been completed in accordance with the plans and specifications therefor, that it was done in accordance with the contract therefor, that such work is satisfactory and that such work has not been previously paid for.

(2) Payment or reimbursement for Project Costs consisting of Issuance Costs and engineering, legal and financial costs shall be made upon submission of appropriate documentation to an Authorized Officer.

Section 12. Tax Covenant.

(a) The Authority hereby covenants and represents with the registered owners of the Tax-Exempt 2023 SRF-1 Junior Lien Bonds, that so long as any of the Tax-Exempt 2023 SRF-1 Junior Lien Bonds remain outstanding and unpaid as to either principal or interest, the Authority shall, to the extent permitted by law, take all actions within its control to maintain, and will refrain from taking any action which would impair, the exclusion of the interest on the Tax-Exempt 2023 SRF-1 Junior Lien Bonds from gross income for federal income tax purposes under the Code.

(b) The actions referred to in subsection (a), above include, but are not limited to actions relating to any required rebate of arbitrage earnings and the expenditure and investment of

proceeds of Tax-Exempt 2023 SRF-1 Junior Lien Bonds and moneys deemed to be proceeds of Tax-Exempt 2023 SRF-1 Junior Lien Bonds, and to prevent Tax-Exempt 2023 SRF-1 Junior Lien Bonds from being or becoming “private activity bonds” as that term is used in the Code.

Section 13. Sale of 2023 SRF-1 Junior Lien Bonds; Purchase Contract; Expiration of Referendum Period.

(a) The 2023 SRF-1 Junior Lien Bonds shall be sold by negotiated sale to the MFA pursuant to a Purchase Contract in customary form with such changes thereto as an Authorized Officer shall determine are in the best interests of the Authority, within the parameters established by this 2023 SRF-1 Series Ordinance. Such determination shall be conclusively established by the Authorized Officer’s execution of the Purchase Contract to the MFA.

(b) The Authority Board hereby determines that the sale of the 2023 SRF-1 Junior Lien Bonds by negotiated sale as described in subsection (a) is in the best interests of the Authority and will allow the 2023 SRF-1 Junior Lien Bonds to receive a subsidized interest rate through participation in the MFA’s State Revolving Fund Program.

(c) An Authorized Officer is authorized to accept, on behalf of the Authority, an offer from the MFA to purchase the 2023 SRF-1 Junior Lien Bonds subject to the following limitations:

- (1) The interest rate with respect to any Series of the 2023 SRF-1 Junior Lien Bonds shall not exceed 2.50%.
- (2) The aggregate purchaser’s discount at which any Series of the 2023 SRF-1 Junior Lien Bonds shall be sold to the MFA shall not exceed 2.00%.

(d) An Authorized Officer shall confirm in the Sale Order that there was no petition meeting the requirements of Section 33 of Act 94 that was filed with the Secretary of the Authority Board within 45 days of the date of publication of the notice of intent to issue bonds with respect to the 2023 SRF-1 Junior Lien Bonds as required by Section 33 of Act 94.

Section 14. Delegation of Authority to and Authorization of Actions of Authorized Officers.

(a) An Authorized Officer shall make all determinations herein provided to be made in the Sale Order and shall make all such determinations in accordance with the best interests of the Authority within the parameters of this 2023 SRF-1 Series Ordinance.

(b) In addition to determinations authorized elsewhere in this 2023 SRF-1 Series Ordinance, an Authorized Officer shall determine the aggregate principal amount of 2023 SRF-1 Junior Lien Bonds to be issued, but not in excess of the aggregate principal amount authorized by this 2023 SRF-1 Series Ordinance, on the basis of her evaluation of the maximum amount of 2023 SRF-1 Junior Lien Bonds which can be sold, given anticipated interest rates and the revenue coverage requirements with respect to the 2023 SRF-1 Junior Lien Bonds and for any other reasons the Authorized Officer deems appropriate.

- (1) Such determination shall also include the redemption provisions for the 2023 SRF-1 Junior Lien Bonds.
- (2) An Authorized Officer shall also determine and establish, in accordance with this 2023 SRF-1 Series Ordinance, the maturities of each Series of the 2023 SRF-1 Junior Lien Bonds, whether such maturities shall be serial or term maturities and the Mandatory Redemption Requirements for any term maturities.

(c) An Authorized Officer is authorized, if necessary, to file applications and to pay the related fees, if any, to the Michigan Department of Treasury at her discretion under Act 34 for one or more orders of approval to issue all or a portion of the 2023 SRF-1 Junior Lien Bonds, and such waivers or other Treasury approvals as necessary to implement the sale, delivery and security for the 2023 SRF-1 Junior Lien Bonds as authorized herein, and as required by the Michigan Department of Treasury or Act 34.

(d) An Authorized Officer shall determine in the Sale Order that the requirements set forth in Section 207 of the Ordinance with respect to the issuance of the 2023 SRF-1 Junior Lien Bonds as Additional Bonds have been satisfied.

(e) An Authorized Officer is hereby authorized and directed to do and perform any and all other acts and things with respect to the 2023 SRF-1 Junior Lien Bonds which are necessary or appropriate to carry into effect, consistent with the Ordinance and this 2023 SRF-1 Series Ordinance, the authorizations therein and herein contained including without limitation the securing of ratings by bond rating agencies, and the incurring of reasonable fees costs and expenses incidental to the foregoing, for and on behalf of the Authority.

Section 15. Advancement of Project Costs. At the direction of an Authorized Officer, the Authority may advance certain Project Costs from the Authority's funds prior to the issuance of the 2023 SRF-1 Junior Lien Bonds to the extent that such costs are expenditures appropriate for reimbursement under applicable law, including the Code in the case of Tax-Exempt 2023 SRF-1 Junior Lien Bonds. The Authority hereby declares its official intent to issue the 2023 SRF-1 Junior Lien Bonds to finance the Project Costs, and hereby declares that it reasonably expects to reimburse the Authority's advances of Project Costs as anticipated by this declaration.

Section 16. Ratification. All determinations and decisions of an Authorized Officer heretofore taken with respect to the issuance and sale of the 2023 SRF-1 Junior Lien Bonds as permitted or required by the Ordinance or law are hereby ratified, confirmed and approved.

Section 17. Additional Authorization. The Chief Executive Officer, the Chief Financial Officer, the Chief Administrative and Compliance Officer and the General Counsel of the Authority, any such officials acting in an interim or acting capacity to such officers, their deputies and staff, or any of them, are hereby authorized to execute and deliver such certificates, Supplemental Agreements, other agreements, documents, instruments, opinions and other papers as may be deemed necessary or appropriate to

complete the sale, execution and delivery of the 2023 SRF-1 Junior Lien Bonds and otherwise give effect to the transactions contemplated by this 2023 SRF-1 Series Ordinance, as determined by such officials executing and delivering the foregoing items.

Section 18. 2023 SRF-1 Series Ordinance a Contract. The provisions of this 2023 SRF-1 Series Ordinance shall constitute a contract between the Authority and each registered owner of an outstanding 2023 SRF-1 Junior Lien Bond.

Section 19. Professional Services.

(a) Dickinson Wright PLLC is hereby appointed as Bond Counsel for the 2023 SRF-1 Junior Lien Bonds, notwithstanding the periodic representation by Dickinson Wright PLLC in unrelated matters of other parties and potential parties to the issuance of the 2023 SRF-1 Junior Lien Bonds.

(b) PFM Financial Advisors LLC is hereby appointed as Financial Advisor for the 2023 SRF-1 Junior Lien Bonds, notwithstanding the periodic representation by PFM Financial Advisors LLC in unrelated matters of other parties and potential parties to the issuance of the 2023 SRF-1 Junior Lien Bonds.

(c) The fees and expenses of Dickinson Wright PLLC and PFM Financial Advisors LLC shall be payable as an Issuance Cost from the proceeds of the 2023 SRF-1 Junior Lien Bonds or other available funds.

(d) An Authorized Officer is authorized to engage financial and other consultants as she deems necessary or appropriate in connection with the sale, issuance and delivery of the 2023 SRF-1 Junior Lien Bonds and to pay the fees and expenses thereof from the proceeds of the 2023 SRF-1 Junior Lien Bonds or other available funds.

Section 20. Severability; Headings; and Conflict. If any section, paragraph, clause or provision of this 2023 SRF-1 Series Ordinance shall be held invalid, the invalidity of such section, paragraph, clause or provision shall not affect any of the other provisions of this 2023 SRF-1 Series Ordinance. The section and paragraph headings in this 2023 SRF-1 Series Ordinance are furnished for convenience of reference only and shall not be considered to be part of this 2023 SRF-1 Series Ordinance.

Section 21. Publication and Recordation. This 2023 SRF-1 Series Ordinance shall be published in full in the Detroit Legal News, a newspaper of general circulation within the geographic boundaries of the Authority qualified under State law to publish legal notices, promptly after its adoption, and shall be maintained in the official records of the Authority and such recording authenticated by the signatures of the Chairperson and Secretary of the Authority Board.

Section 22. Repeal. All ordinances, resolutions, indentures or orders, or parts thereof, in conflict with the provisions of this 2023 SRF-1 Series Ordinance are, to the extent of such conflict, repealed.

Section 23. Effective Date. This 2023 SRF-1 Series Ordinance shall be effective upon adoption.

Adopted and signed on the _____ day of _____, 2023.

GREAT LAKES WATER AUTHORITY

Signed _____
Chairperson

Signed _____
Secretary

Great Lakes Water Authority
Resolution 2023-
RE: Approval of Series Ordinance Authorizing Issuance and Sale of Sewage Disposal
System Revenue Bonds in an Amount not to Exceed \$105,000,000
Ordinance 2023-01

By Board Member: _____

Whereas There has been presented to the Board of Directors of the Great Lakes Water Authority (the “Authority”) an ordinance entitled “Series Ordinance Authorizing the Issuance and Sale of Sewage Disposal System Revenue Bonds in an Amount not to Exceed \$105,000,000” (the “2023 SRF-1 Series Ordinance”), which ordinance is a Series Ordinance as defined and described in Master Bond Ordinance No. 2015-02 adopted by the Board of Directors on October 7, 2015, as amended on December 9, 2015, January 27, 2016, August 10, 2016 and February 12, 2020.

Whereas The Articles of Incorporation of the Authority provide that at least 5 of the 6 members of the Authority Board must vote to approve the 2023 SRF-1 Series Ordinance.

Now, Therefore Be It:

Resolved That the 2023 SRF-1 Series Ordinance, in the form presented to this meeting, is approved and adopted, and the Chairperson and the Secretary are authorized to authenticate the 2023 SRF-1 Series Ordinance in the form approved; **And Be it Further**

Resolved That an affirmative vote of at least 5 members of the Authority Board is necessary for the passage of this Resolution.

Adopted by the Great Lakes Water Authority Board on: _____, 2023

GLWA

Great Lakes Water Authority



Monthly Financial Report Binder

October 2022

**Presented to the
Great Lakes Water Authority
Audit Committee on February 24, 2023**

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Key Financial Metrics

The table below provides key report highlights and flags the financial risk of a budget shortfall by year-end as follows: No Risk (green) - Potential (yellow) - Likely (red)

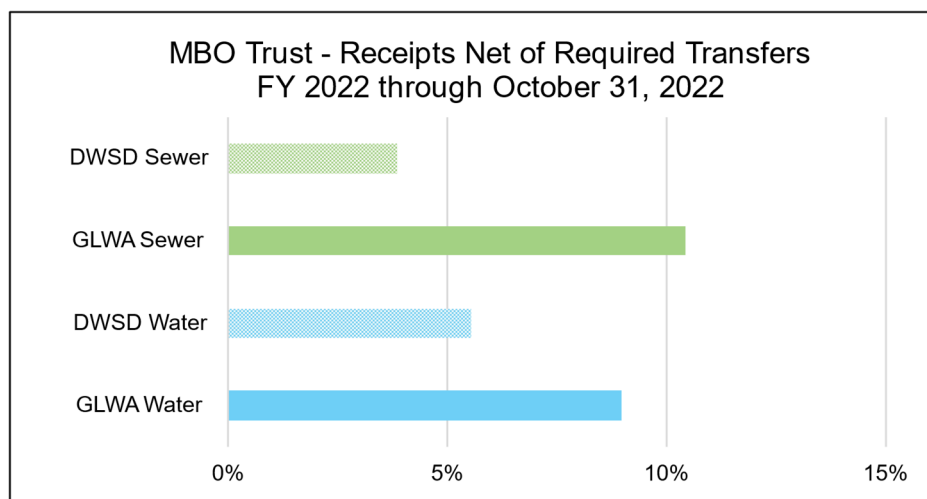
Each variance is monitored by the Great Lakes Water Authority (GLWA) management and, where appropriate, operating and/or budget priorities are re-evaluated. Budget amendments are prepared and presented quarterly based on most current information. This report reflects first quarter FY 2023 budget amendments approved by the GLWA Board of Directors on October 26, 2022.

For the current period, wholesale water operations and maintenance, investment income, and sewer capital spend all reflect variances to budget outside the normal range. GLWA staff will continue to monitor these areas to see if additional budget amendments will be necessary. Investment income will begin to align with the amended budget as older investments are re-invested at higher interest rates as anticipated.

As of October 31, 2022					
Metric	FY 2023 Budget	FY 2023 Amended Budget	FY 2023 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue (\$M)	\$122.5	\$122.5	\$123.6	1%	47
Wholesale Water Billed Usage (mcf)	5,384,000	5,384,000	5,447,000	1%	
Wholesale Sewer Billed Revenue (\$M)	\$91.6	\$91.6	\$91.6	0%	49
Wholesale Water Operations & Maintenance (\$M)	\$48.3	\$48.3	\$51.5	7%	5
Wholesale Sewer Operations & Maintenance (\$M)	\$61.4	\$64.9	\$65.5	1%	
Investment Income (\$M)	\$0.8	\$5.8	\$4.7	-19%	36
Water Prorated Capital Spend w/SRA* (\$M)	\$51.8	\$65.0	\$65.3	0%	28
Sewer Prorated Capital Spend w/SRA* (\$M)	\$31.5	\$42.0	\$27.6	-34%	29

*SRA refers to the capital spending ratio assumption which allows capital program delivery realities to align with the financial plan.

Master Bond Ordinance (MBO) Trust Net Receipts (page 52)



Net cash flow receipts remain positive for GLWA Water and Sewer. This means that all legal commitments of the MBO Trust and the lease payment are fully funded – and that positive cash flow is available for additional capital program funding in

subsequent year(s). DWSD Water reports a surplus of \$2.0 million and DWSD Sewer reports a surplus of \$3.9 million of net receipts over disbursements through October 2022.

Budget to Actual Analysis (page 3)

- FY 2023 information includes the first quarter budget amendments which were approved by the GLWA Board on October 26, 2022.
- The total Revenue Requirements are on target through October 2022.
- The total overall Operations & Maintenance expenses are at 34.4% of budget through October 2022 which is slightly above the pro-rata benchmark of 33.3%. This negative variance equates to a dollar amount of \$3.8 million.

Basic Financial Statements (page 9)

- The Basic Financial Statements are prepared on a full accrual basis and reflect preliminary, unaudited results.
- Operating income for October 2022 is \$37.4 million for the Water fund (28.4% of total revenues) and \$39.0 million for the Sewer fund (24.3 % of total revenues).
- Water Net Position increased by \$ 12.3 million, and Sewage Disposal Net Position increased by \$ 5.3 million for the year to date through October 2022.

Capital Improvement Plan Financial Summary (page 27)

- The Water system exceeds the originally approved 80% Capital Spend Ratio assumption.
- The Sewer system falls short of the originally approved 75% Capital Spend Ratio assumption.

Master Bond Ordinance Transfers (page 30)

- For October, transfers of \$13.7 million and \$19.0 million were completed for the GLWA Water and Sewer funds, respectively.
- Also, for October, transfers of \$6.0 million and \$6.0 million were completed for the DWSD Water and Sewer funds, respectively.

Cash Balances & Investment Income (page 36)

- Total cash & investments are \$570 million in the Water fund and \$624 million in the Sewer fund.
- Total, combined, cumulative, FY 2023 investment income through October is \$4.7 million.

DWSD Retail Revenues, Receivables & Collections (page 40)

- Water usage through October 31, 2022 is at 107.85% and revenues at 103.33% of budget.
- Sewer usage through October 31, 2022 is at 105.85% and revenues at 103.23% of budget.
- Combined accounts receivable balances for the water and sewer funds report an increase of \$48.3 million over the prior year.
- Past dues over 180 days make up 68.8% of the total accounts receivable balance. The current bad debt allowance covers 99.0% of past dues over 60 days.

GLWA Wholesale Billing, Receivables & Collections (page 46)

- GLWA accounts receivable past due balance net of Highland Park is 9.37% of the total accounts receivable balance, with the majority of that balance related to one water account dispute currently under discussion.
- The Highland Park past due balance is \$55.1 million. It includes \$41.9 million for wastewater treatment services, \$1.8 million for industrial waste control services, and \$11.4 million for water supply services. Highland Park made a catch-up payment of \$1.7 million on June 3, 2022 and has continued to make additional, monthly payments since that time totaling \$634 thousand as of October 31, 2022.

Questions? Contact the Office of the Chief Financial Officer at CFO@glwater.org



The Monthly Budget to Actual Analysis report includes the following three sections.

1. Revenue Requirements Budget Basis Analysis
2. Operations & Maintenance Budget – Major Budget Categories
3. Alignment of Operations & Maintenance Budget Priorities – Expense Variance Analysis

The FY 2023 information presented in these sections includes the first quarter FY 2023 budget amendments approved by the GLWA Board on October 26, 2022.

Revenue Requirements Budget Basis Analysis

GLWA's annual revenue requirements represent the basis for calculating Member Partner charges and aligns with the Master Bond Ordinance flow of funds categories. The budget basis is not the same as the full accrual basis used for financial reporting although the revenues and operations and maintenance expenses are largely reported on an accrual basis. The primary difference between the revenue requirements budget basis to the financial reporting basis is the treatment of debt service, legacy pension obligations, and lease related activities. The Revenue Requirements Basis is foundational to GLWA's daily operations, financial plan, and of most interest to key stakeholders.

Table 1A – Water Revenue Requirements Budget and **Table 1B – Sewer Revenue Requirements Budget** presents a year-over-year budget to actual performance report. The revenue requirements budget is accounted for in the operations and maintenance fund for each system. Since this report is for October 2022, the pro-rata benchmark is 33.3% (4 of 12 months of the fiscal year).

Items noted below are highlighted in gold on Tables 1A (Water) and 1B (Sewer).

1. **Revenues:** For *both* systems, FY 2023 revenues are either at or above target. Detailed schedules related to revenues are provided in the *Wholesale Billings, Collections, and Receivables* section of this financial report binder.

Water revenues presented in Table 1A differ from those presented in *Table 2 – Statement of Revenues, Expenses and Changes in Net Position* found in the *Basic Financial Statement* section of this report. Water Revenues presented in Table 1A for revenue requirement purposes are reduced by the monthly payment to the City of Flint for a license to raw water rights under the Flint Raw Water Contract as documented in Appendix A-2 of the [Flint Water Agreement](#). Through October 31, 2022, these payments total \$2.1 million for FY 2023.

2. **Investment Earnings:** For both systems, investment earnings are below the pro-rata benchmark for FY 2023; the *water* system is at 16.4%; while the *sewer* system is at 20.9%. Detailed analysis of investment earnings activity to date can be found in the *Cash & Investment Income* section of this financial report binder.
3. **Other Revenues:** These are one-time and unusual items that do not fit an established revenue category. Both the *water* and *sewer* systems actual amount will vary from budget due to the nature of the items recorded in this category.
4. **Operations & Maintenance Expense:** Actual expenses¹ for *both* systems have variances from the pro-rata benchmark. The *water* system is above the pro-rata benchmark for FY 2023 at 35.6%. The *sewer* system O&M expenses, at 33.6%, is slightly above the pro-rata benchmark.
5. **Debt Service:** For FY 2023, the *water* system, at 33.5%, is slightly above the pro-rata benchmark for debt service while the *sewer* system, at 32.9%, is slightly below the target. The activity is based on the payment schedules adjusted for the State Revolving Fund loans that are still being drawn down.
6. **Operating Reserve Deposit:** GLWA has established a target balance in the O&M Fund of 45 days of operating expense which works in tandem with the I&E Funds to provide liquidity to the utility. Adequate funding is in place to meet this requirement; therefore, it is expected that additional transfers to this reserve will not be required in FY 2023.
7. **DWSD Budget Shortfall Pending:** To the extent that the local (DWSD) system experiences budgetary shortfalls as defined by the Water & Sewer Services Agreement, the GLWA budget is impacted.² Steps to proactively detect, and ideally prevent, this shortfall scenario were put into place with the 2018 Memorandum of Understanding (dated June 27, 2018). For FY 2022, DWSD management successfully implemented a formal plan to end the year with positive net cash flows for both the DWSD *water* system and the DWSD *sewer* system. For FY 2023, neither the DWSD *water* system nor the DWSD *sewer* system have a budgetary shortfall through October 31, 2022. GLWA and DWSD staff meet regularly to discuss steps to mitigate shortfalls, when they occur, as outlined in the 2018 MOU.
8. **Improvement & Extension (I&E) Fund Transfer Pending:** The contribution to the I&E Fund is for improvements, enlargements, extensions, or betterment of the *water* and *sewer* systems.
9. **Other Revenue Requirements:** The remaining revenue requirements for *both* systems are funded on a 1/12th basis each month in accordance with the Master Bond Ordinance.
10. **Overall:** Total revenue requirements for *both* systems are in line with the benchmark.

¹The tables in this analysis reflect actual amounts spent. If this analysis was on a master bond ordinance (MBO) basis, like that used for calculating debt service coverage, O&M "expense" would equal the pro-rata budget because 1/12 of the O&M budget is transferred monthly outside the MBO trust to an O&M bank account.

² As a reminder, the monthly O&M transfer for MBO purposes is at 1/12 of the budget to a DWSD O&M bank account outside the trust. Actual budget may be less than that amount providing an actual positive variance for DWSD.

Table 1A – Water Revenue Requirements Budget (year-over-year) – (\$000)

	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 10/31/2021	Percent Year-to- Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 10/31/2022	Percent Year-to- Date
Water System							
Revenues							
Suburban Wholesale Customer Charges	\$ 315,011	\$ 113,312	36.0%	\$ 331,962	\$ 330,856	\$ 121,757	36.8%
Retail Service Charges	21,697	7,232	33.3%	22,986	22,834	7,645	33.5%
Investment Earnings	1,924	753	39.1%	949	6,870	1,127	16.4%
Other Revenues	684	154	22.5%	175	175	109	62.5%
Total Revenues	\$ 339,316	\$ 121,451	35.8%	\$ 356,072	\$ 360,736	\$ 130,638	36.2%
Revenue Requirements							
Operations & Maintenance Expense	\$ 143,934	\$ 44,190	30.7%	\$ 144,848	\$ 144,848	\$ 51,515	35.6%
General Retirement System Legacy Pension	6,048	2,016	33.3%	6,048	6,048	2,016	33.3%
Debt Service	135,121	45,174	33.4%	150,337	150,827	50,520	33.5%
General Retirement System Accelerated Pension	6,268	2,120	33.8%	6,268	6,268	2,089	33.3%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	1,706	569	33.3%	1,771	1,771	590	33.3%
Regional System Lease	22,500	7,500	33.3%	22,500	22,500	8,141	36.2%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending Improvement & Extension Fund Transfer Pending	-	-	0.0%	-	-	-	0.0%
	23,740	9,365	39.4%	24,300	28,474	9,491	33.3%
Total Revenue Requirements	\$ 339,316	\$ 110,933	32.7%	\$ 356,072	\$ 360,736	\$ 124,362	34.5%
Net Difference		\$ 10,518				\$ 6,276	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ 8,345				\$ 10,393	
Revenue Requirement Variance		2,173				(4,117)	
Overall Variance		\$ 10,518				\$ 6,276	

Table 1B – Sewer Revenue Requirements Budget (year-over-year) – (\$000)

	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 10/31/2021	Percent Year-to- Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 10/31/2022	Percent Year-to- Date
Sewer System							
Revenues							
Suburban Wholesale Customer Charges	\$ 268,130	\$ 90,738	33.8%	\$ 275,404	\$ 273,007	\$ 91,775	33.6%
Retail Service Charges	188,662	62,887	33.3%	191,042	191,042	63,681	33.3%
Industrial Waste Control Charges	8,325	2,779	33.4%	8,420	8,420	2,806	33.3%
Pollutant Surcharges	5,089	1,728	34.0%	4,951	4,951	1,690	34.1%
Investment Earnings	1,876	626	33.3%	1,156	8,771	1,832	20.9%
Other Revenues	538	226	41.9%	400	400	267	66.7%
Total Revenues	\$ 472,620	\$ 158,983	33.6%	\$ 481,372	\$ 486,591	\$ 162,051	33.3%
Revenue Requirements							
Operations & Maintenance Expense	\$ 191,909	\$ 56,242	29.3%	\$ 184,053	\$ 194,823	\$ 65,459	33.6%
General Retirement System Legacy Pension	10,824	3,608	33.3%	10,824	10,824	3,608	33.3%
Debt Service	204,985	69,092	33.7%	205,638	211,355	69,595	32.9%
General Retirement System Accelerated Pension	11,621	3,874	33.3%	11,621	11,621	3,874	33.3%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	2,358	786	33.3%	2,394	2,394	798	33.3%
Regional System Lease	27,500	9,167	33.3%	27,500	27,500	8,679	31.6%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending Improvement & Extension Fund Transfer Pending	-	1,720	0.0%	-	-	-	0.0%
	23,424	11,539	49.3%	39,343	28,075	9,358	33.3%
Total Revenue Requirements	\$ 472,620	\$ 156,027	33.0%	\$ 481,372	\$ 486,591	\$ 161,371	33.2%
Net Difference		\$ 2,956				\$ 679	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ 1,443				\$ (146)	
Revenue Requirement Variance		1,513				826	
Overall Variance		\$ 2,956				\$ 679	

Operations & Maintenance Budget – Major Budget Categories

The year-over-year benchmark ratio as of October 31, 2022, is 33.3% (four months). When comparing FY 2023 to FY 2022 in **Table 2 – Operations & Maintenance Budget – Major Budget Categories**, the overall spending is higher in FY 2023.

In addition to the four major budget categories, an internal charge cost center for employee benefits is shown in the table below. If the number is positive, it indicates that the internal cost allocation rate charges to other cost centers is not sufficient. A negative number indicates a surplus in the internal cost center. A moderate surplus is preferred as it provides a hedge for mid-year benefit program cost adjustments (premiums adjust on January 1 each year) as well as managing risk as the program is partially self-insured.

Table 2 – Operations & Maintenance Budget – Major Budget Categories – (\$000)

Major Budget Categories	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 10/31/2021	Percent Year-to- Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 10/31/2022	Percent Year-to- Date
Water	\$ 76,422	\$ 26,714	35.0%	\$ 76,518	\$ 76,518	\$ 28,787	37.6%
Sewer	120,971	36,505	30.2%	113,198	123,967	44,738	36.1%
Centralized	103,846	27,498	26.5%	104,503	104,503	32,984	31.6%
Administrative	34,603	9,715	28.1%	34,682	34,682	10,466	30.2%
Employee Benefits	-	-	0.0%	-	-	-	0.0%
Total O&M Budget	\$ 335,843	\$ 100,432	29.9%	\$ 328,900	\$ 339,670	\$ 116,974	34.4%

Totals may be off due to rounding

Alignment of Operations & Maintenance Budget Priorities – Expense Variance Analysis

The purpose of **Table 3 – Operations & Maintenance Expense Variance Analysis** is to evaluate whether the actual spend rate within a natural cost category is in alignment with the budget. Given the effort to develop an accurate budget, a variance is a red flag of a *potential* budget amendment or misalignment of priorities.

Total: In total, the overall O&M expenses are at 34.4% which is slightly above the pro-rata benchmark of 33.3%. This negative variance equates to a dollar amount of \$3.8 million. The expense category commentary is provided below for items highlighted on Table 3.

Personnel Costs: The overall category is slightly under the pro-rata benchmark; coming in at 31.7% through October 2022.

Utilities: The overall category is above the pro-rata benchmark; coming in at 45.9% through October 2022. Variances within this category, when they occur, are not unexpected as usage varies throughout the year.

- **Electric** is higher than the pro-rata benchmark, coming in at 40.4%. The FY 2023 budget was adjusted for the increase to the charge for kWh, however, variances are not unexpected as usage varies throughout the year. The first three months of GLWA's fiscal year (July, August, and September) are typically peak months for the usage of electricity. June, the last month of GLWA's fiscal year, is typically a peak month as well.
- **Gas** is coming in at 54.2% which is higher than the benchmark of 33.3%. Variances within this category are not unexpected as usage varies throughout the year. The FY 2023 budget was adjusted for the increase in both usage as well as for the cost of natural gas MMBTU. Further review of this category is being conducted.
- **Sewage service** is higher than the benchmark, coming in at 35.4%. Increased usage is being reported at the WRRF (in part due to bills being received for actual meter readings when in the past the bills had been estimated), the Biosolids Dryer Facility (BDF), and the Southwest Water Plant. A review of this category is being conducted.
- **Water service** is higher than the benchmark, coming in at 107.4%. As meters have been repaired or replaced at the WRRF, the billings that previously reported estimated readings have been replaced with actual readings. The actual readings are coming in higher than the estimated billings. A review of this category is being conducted and a second quarter FY 2023 budget amendment is anticipated.

Chemicals: This category is higher than the pro-rate benchmark; coming in at 38.7% through October 2022. The FY 2023 budget was adjusted for the increase in chemical costs, however, variances within this category are not unexpected as usage varies throughout the year.

Supplies & Other: This category is lower than the benchmark; coming in at 31.0% through October 2022. Given that the nature of the items in this category are subject to one-time expenses that do not occur evenly throughout the year, variances are not unexpected. A review of this category is being conducted.

Contractual Services: The overall category is lower than the pro-rata benchmark; coming in at 31.8% through October 2022. Variances in this category, when they occur, are not unexpected as the usage of contracts varies throughout the year (projects scheduled to begin during the latter half of the year as well as contracts that are on an as needed basis). Budget amendments will be processed for those projects in which the actual start dates have been delayed from that in which they were budgeted.

Capital Program Allocation: This category is lower than the benchmark; coming in at 13.5% through October 2022. The amount in the Capital Program Allocation account is shown as negative as this is a "contra" account which represents an offset to the Personnel Costs section of the Operations & Maintenance (O&M) budget. A review of this category is being conducted.

Shared Services: This category is lower than the benchmark; coming in at 24.7% through October 2022. The shared services reimbursement is comprised of both labor (tracked via BigTime) and expenses, such as annual fees for software licensing. Staff from both GLWA and DWSD have been working together to evaluate and refine the budget for the shared services agreements. Based on these evaluations, adjustments have been made to both the billings and accounting accruals to reflect the forecasted activity more accurately for FY 2023. In addition, it is important to note that some of the shared services agreements are not billed at a monthly rate of 1/12 of the annual budgeted amount.

Table 3 – Operations & Maintenance Expense Variance Analysis – (\$000)

Expense Categories	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 10/31/2021	Percent Year-to- Date at 10/31/2021	FY 2022 ACTIVITY THRU 6/30/2022	Percent Year-to- Date at 6/30/2022	FY 2023 AMENDED BUDGET	FY 2023 PRORATED AMENDED BUDGET (4 MONTHS)	FY 2023 ACTIVITY THRU 10/31/2022	Percent Year-to- Date 10/31/2022	FY 2023 PRORATED BUDGET LESS FY 2023
Entity-wide										
Salaries & Wages	\$ 66,113	\$ 22,067	33.4%	\$ 63,901	34.5%	\$ 72,925	\$ 24,308	\$ 23,403	32.1%	\$ 906
Workforce Development	869	253	29.1%	844	30.0%	1,802	601	403	22.4%	197
Overtime	8,126	2,684	33.0%	8,113	33.1%	6,984	2,328	2,936	42.0%	(609)
Employee Benefits	25,956	8,417	32.4%	24,206	34.8%	28,947	9,649	8,393	29.0%	1,256
Transition Services	10,805	3,334	30.9%	9,990	33.4%	11,119	3,706	3,416	30.7%	291
Employee Benefits Fund	-	-	0.0%	-	0.0%	-	-	-	0.0%	-
Personnel Costs	111,869	36,754	32.9%	107,053	34.3%	121,777	40,592	38,551	31.7%	2,041
Electric	43,950	15,511	35.3%	43,755	35.4%	42,114	14,038	17,025	40.4%	(2,987)
Gas	7,081	1,626	23.0%	8,665	18.8%	8,553	2,851	4,632	54.2%	(1,781)
Sewage Service	2,510	896	35.7%	2,568	34.9%	2,268	756	804	35.4%	(47)
Water Service	5,841	852	14.6%	4,669	18.2%	2,982	994	3,202	107.4%	(2,208)
Utilities	59,383	18,884	31.8%	59,656	31.7%	55,918	18,639	25,663	45.9%	(7,024)
Chemicals	19,842	6,241	31.5%	20,382	30.6%	23,782	7,927	9,200	38.7%	(1,273)
Supplies & Other	35,034	8,384	23.9%	29,711	28.2%	34,912	11,637	10,809	31.0%	828
Contractual Services	111,198	32,040	28.8%	107,527	29.8%	105,993	35,331	33,711	31.8%	1,620
Capital Program Allocation	(2,684)	(961)	35.8%	(2,632)	36.5%	(4,376)	(1,459)	(590)	13.5%	(869)
Shared Services	(3,202)	(910)	28.4%	(2,398)	37.9%	(1,501)	(500)	(371)	24.7%	(130)
Unallocated Reserve	4,402	-	0.0%	-	0.0%	3,167	1,056	-	0.0%	1,056
Total Expenses	\$ 335,843	\$ 100,432	29.9%	\$ 319,300	31.5%	\$ 339,670	\$ 113,223	\$ 116,974	34.4%	\$ (3,750)
Totals may be off due to rounding										



The Basic Financial Statements report includes the following four tables.

1. Statement of Net Position - All Funds Combined
2. Statement of Revenues, Expenses and Changes in Net Position – All Funds Combined
3. Supplemental Schedule of Operations & Maintenance Expenses -All Funds Combined
4. Supplemental Schedule of Nonoperating Expenses – All Funds Combined

At a macro level GLWA has two primary funds for financial reporting purposes: *Water Fund* and *Sewage Disposal Fund*. These funds represent the combined total of four sub-funds for each system that are used internally to properly account for sources and uses of funds. Those sub-funds for each system are: *Operations & Maintenance Fund*, *Improvement & Extension Fund*, *Construction Fund*, and *Capital Asset Fund*.

The June 2022 comparative amounts shown in the tables below are presented based on final audited figures.

Statement of Net Position – All Funds Combined

Explanatory notes follow the Statement of Net Position shown in Table 1 below.

**Table 1 – Statement of Net Position - All Funds Combined
As of October 31, 2022
(\$000)**

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2022
Assets				
Cash - unrestricted (a)	\$ 170,037	\$ 204,970	\$ 375,007	\$ 347,655
Cash - restricted (a)	241,186	252,056	493,242	113,378
Investments - unrestricted (a)	73,754	96,525	170,278	185,209
Investments - restricted (a)	66,579	82,740	149,319	144,445
Accounts Receivable	102,881	56,372	159,252	175,133
Due from (to) Other Funds (b)	(2,755)	2,755	-	-
Other Assets (c)	665,128	410,893	1,076,020	1,077,698
Cash held FBO DWSD Advance	-	-	-	-
Capital Assets, net of Depreciation	1,252,876	2,086,153	3,339,029	3,432,437
Land	294,046	126,713	420,759	420,750
Construction Work in Process (e)	339,455	221,212	560,667	467,190
Total assets	3,203,186	3,540,388	6,743,574	6,363,896
Deferred Outflows (f)	51,914	126,957	178,871	182,497
Liabilities				
Liabilities - Liabilities-ST	163,561	177,570	341,131	354,055
Due to (from) Other Funds (b)	-	-	-	-
Other Liabilities (h)	2,076	5,602	7,678	7,500
Cash Held FBO DWSD (d)	16,966	15,624	32,590	20,470
Liabilities - Long-Term (i)	3,111,271	3,513,834	6,625,105	6,263,510
Total liabilities	3,293,874	3,712,631	7,006,505	6,645,535
Deferred Inflows (f)	58,156	59,495	117,651	120,157
Total net position (j)	\$ (96,930)	\$ (104,781)	\$ (201,711)	\$ (219,299)

Totals may be off due to rounding

In general, the Statement of Net Position reflects a mature organization with no unexpected trends.

An ongoing challenge is the Net Position Deficit. The underlying causes took years to build (largely heavy use of debt to finance capital asset investment versus a strategic blend of debt, state revolving funds, and cash). The effect is reflected in GLWA's high debt interest expense. The GLWA is regularly updating the FY 2032 forecast which helps to provide a pathway to a positive Net Position in the future.

Footnotes to Statement of Net Position

- a. *Cash and Investments* are reported at market value. Investments at June 30, 2022 are also reported at market value. The October 31, 2022 values differ from the Cash and Investment section of this Financial Report Binder due to timing of certain items recognized on a cash versus accrual basis.
- b. *Due from Other Funds* and *Due to Other Funds* are shown at gross for sub-fund activity.
- c. *Other Assets* primarily consists of the contractual obligation receivable from DWSD related to reimbursement of bonded indebtedness for local system improvements.
- d. *Cash Held FBO Advance (for benefit of) DWSD* and *Cash Held FBO DWSD* represents the net difference between DWSD retail cash received from customers and net financial commitments as outlined in the Master Bond Ordinance.
- e. *Construction Work in Process* represents the beginning balance of CWIP plus any construction spending during the fiscal year. The balance will fluctuate based on the level of spend less any capitalizations or write-offs.
- f. *Deferred Inflow* and *Deferred Outflow* relate mainly to financing activity and GLWA's share of the legacy General Retirement System (GRS) pension obligation.
- g. *Liabilities - Short-term* include accounts payable, retainage payable, and certain accrued liabilities. Some items, such as compensated absences and worker's compensation, are reviewed periodically but only adjusted in the interim if there is a material change.
- h. *Other Liabilities* account for the cash receipts set aside for the Budget Stabilization Fund and the Water Residential Assistance Program.
- i. *Liabilities – Long-term* include bonds payable, lease payable, and legacy General Retirement System pension liabilities.
- j. *Net Position Deficit* is defined by accounting standards as the residual of all other elements presented in a statement of financial position. It is the difference between (a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources. A net deficit occurs when the liabilities and deferred inflows exceed assets and deferred outflows. GLWA's net deficit is largely driven by an increase in depreciation expense because of the increase in the acquisition valuation approach for recording capital asset values in the opening Statement of Net Position on January 2016. Efforts are underway to evaluate the net operating effect of this matter over the long term.

Statement of Revenues, Expenses and Changes in Net Position

– All Funds Combined

This statement, shown in Table 2, is presented in summary format. The accrual basis of revenues and operations and maintenance expense vary from the revenue requirement basis presented in the *Budget to Actual Analysis* and the *Wholesale Billings, Receivables & Collections* sections of the October 2022 Financial Report Binder. Prior year ending balances are provided in the June 30, 2022 column as a reference for comparative purposes. Explanatory notes follow this statement.

Water revenues presented below in Table 2 differ from those presented in *Table 1A – Water Revenue Requirement Budget* found in the *Budget to Actual Analysis* section of this report because water revenues presented in Table 1A for revenue requirement purposes are reduced by the monthly payment to the City of Flint for a license to raw water rights.

Table 2 – Statement of Revenues, Expenses and Changes in Net Position
– All Funds Combined
For the Four Months ended October 31, 2022
(\$000)

	Water	Percent of Revenue	Sewage Disposal	Percent of Revenue	Total Business- Type Activities	Comparative June 30, 2022
Revenue						
Wholesale customer charges	\$ 123,896	94.1%	\$ 91,775	57.3%	\$ 215,672	\$ 591,840
Local system charges	7,645	5.8%	63,681	39.8%	71,326	210,360
Industrial waste charges		0.0%	2,806	1.8%	2,806	8,300
Pollutant surcharges		0.0%	1,690	1.1%	1,690	5,182
Other revenues	86	0.1%	245	0.2%	332	664
Total Revenues	131,628	100.0%	160,197	100.0%	291,825	816,345
Operating expenses						
Operations and Maintenance	52,067	39.6%	67,119	41.9%	119,186	324,735
Depreciation	41,016	31.2%	53,967	33.7%	94,983	281,210
Amortization of intangible assets	1,189	0.9%	147	0.1%	1,335	4,006
Total operating expenses	94,272	71.6%	121,233	75.7%	215,505	609,951
Operating Income	37,356	28.4%	38,964	24.3%	76,321	206,394
Total Nonoperating (revenue) expense	25,020	19.0%	33,712	21.0%	58,733	215,561
Increase/(Decrease) in Net Position	12,336	9.4%	5,252	3.3%	17,588	(9,167)
Net Position (deficit), beginning of year	(109,266)		(110,033)		(219,299)	(210,132)
Net position (deficit), end of year	\$ (96,930)		\$ (104,781)		\$ (201,711)	\$ (219,299)
<i>Totals may be off due to rounding</i>						

Water Fund

- ✓ The increase in Water Fund Net Position is \$12.3 million.
- ✓ Wholesale water customer charges of \$123.9 million account for 94.1% of Water System revenues.
- ✓ Operating expenses of \$94.3 million represent 71.6% of total operating revenue. Depreciation is the largest operating expense at \$41.0 million or 43.5% of operating expense.
- ✓ Amortization of intangible assets represents activity for raw water rights.
- ✓ Operating income after operating expenses (including depreciation) equals \$37.4 million or 28.4% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$26.3 million (this equates to the bonded debt interest expense less the offset from DWSD contractual obligation income).

Sewage Disposal Fund

- ✓ The increase in the Sewage Disposal Fund Net Position is \$5.3 million.
- ✓ Wholesale customer charges of \$91.8 million account for 57.3% of Sewer System revenues. Wholesale customer charges are billed one-twelfth each month based on an agreed-upon historical average “share” of each customer’s historical flows which are formally revisited on a periodic basis. The result is no revenue shortfall or overestimation.
- ✓ Local system (DWSD) charges of \$63.7 million account for 39.8% of total operating revenues. These are also billed at one-twelfth of the annual revenue requirement.
- ✓ Operating expenses of \$121.2 million represent 75.7% of total operating revenue. Depreciation is the largest operating expense at \$54.0 million or 44.5% of total operating expense.
- ✓ Amortization of intangible assets represents activity for a warehouse lease.
- ✓ Operating income after operating expenses (including depreciation) equals \$39.0 million or 24.3% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$31.0 million (this equates to the bonded debt interest expense less the offset from DWSD contractual obligation income).

Supplemental Schedule of Operations & Maintenance Expenses – All Funds Combined

This Supplemental Schedule of Operations & Maintenance Expenses (O&M) schedule is shown below in Table 3. This accrual basis of operations and maintenance expense may vary from the revenue requirement basis presented in the *Budget to Actual Analysis* section of the October 2022 Financial Report Binder. Explanatory notes follow this schedule.

**Table 3 – Supplemental Schedule of Operations & Maintenance Expenses
– All Funds Combined
For the Four Months ended October 31, 2022
(\$000)**

	Water	Percent of Total	Sewage Disposal	Percent of Total	Total Business- Type Activities	Percent of Total
Operating Expenses						
Personnel						
Salaries & Wages	8,507	16.3%	18,716	27.9%	27,222	22.8%
Overtime	1,920	3.7%	1,016	1.5%	2,936	2.5%
Benefits	5,922	11.4%	2,471	3.7%	8,393	7.0%
Total Personnel	\$ 16,349	31.4%	\$ 22,202	33.1%	\$ 38,552	32.3%
Utilities						
Electric	11,681	22.4%	5,344	8.0%	17,025	14.3%
Gas	228	0.4%	4,404	6.6%	4,632	3.9%
Sewage	151	0.3%	653	1.0%	804	0.7%
Water	3	0.0%	3,199	4.8%	3,202	2.7%
Total Utilities	\$ 12,063	23.2%	\$ 13,600	20.3%	\$ 25,663	21.5%
Chemicals	4,021	7.7%	5,180	7.7%	9,201	7.7%
Supplies and other	4,076	7.8%	6,611	9.8%	10,687	9.0%
Contractual services	16,082	30.9%	20,021	29.8%	36,104	30.3%
Capital Adjustment	-	0.0%	-	0.0%	-	0.0%
Capital program allocation	(302)	-0.6%	(287)	-0.4%	(590)	-0.5%
Intergovernmental Agreement	-	0.0%	(59)	-0.1%	(59)	0.0%
Shared services allocation	(222)	-0.4%	(150)	-0.2%	(371)	-0.3%
Operations and Maintenance Expenses	\$ 52,067	100.0%	\$ 67,119	100.0%	\$ 119,186	100.0%

Totals may be off due to rounding

- ✓ Core expenses for water and sewage disposal systems are utilities (21.5% of total O&M expenses) and chemicals (7.7% of total O&M expenses).
- ✓ Personnel costs (32.3% of total O&M expenses) include all salaries, wages, and benefits for employees as well as staff augmentation contracts that fill a vacant position (contractual transition services).
- ✓ Contractual services (30.3%) includes:
 - Water System costs of sludge removal and disposal services at the Northeast, Southwest and Springwells Water Treatment Plants (approximately \$914 thousand);
 - Sewage Disposal System costs for the operation and maintenance of the biosolids dryer facility (approximately \$5.5 million); and
 - Centralized and administrative contractual costs allocated to both systems for information technology, building maintenance, field, planning and other services.
- ✓ The Capital Program Allocation, Intergovernmental Agreement and Shared Services Allocation are shown as negative amounts because they are 'contra' expense accounts representing offsets to associated costs in other Operations and Maintenance expense categories.

Supplemental Schedule of Nonoperating Expenses – All Funds Combined

The Supplemental Schedule of Nonoperating Expenses – All Funds Combined is shown in Table 4. Explanatory notes follow this schedule.

Table 4 – Supplemental Schedule of Nonoperating Expenses – All Funds Combined
For the Four Months ended October 31, 2022
(\$000)

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2022
Nonoperating (Revenue)/Expense				
Interest income contractual obligation	\$ (8,184)	\$ (5,465)	\$ (13,649)	\$ (42,120)
Interest income DWSD Shortfall	-	-	-	(145)
Investment earnings	(2,295)	(2,909)	(5,205)	(3,735)
Net (incr) decr in fair value of invstmt	(2,497)	(3,667)	(6,164)	9,119
Other nonoperating revenue	(23)	(21)	(45)	(476)
Interest Expense				
Bonded debt	34,478	36,477	70,954	212,284
Lease obligation	5,624	6,874	12,498	37,836
Other obligations	1,427	535	1,962	6,077
Total interest expense	41,529	43,886	85,414	256,197
Other non-capital expense	-	-	-	-
Memorandum of Understanding	-	-	-	-
Capital Contribution	-	(198)	(198)	(6,991)
Amortization, issuance costs, debt	(3,793)	1,721	(2,072)	(13,318)
(Gain) loss on disposal of capital assets	-	(17)	(17)	322
Loss on impairment of capital assets	-	-	-	-
Water Residential Assistance Program	284	384	667	2,793
Legacy pension expense	-	-	-	13,915
Total Nonoperating (Revenue)/Expense	\$ 25,020	\$ 33,712	\$ 58,733	\$ 215,561

Totals may be off due to rounding

- ✓ Interest income on contractual obligation relates to the portion of the total GLWA debt obligation attributable to DWSD. This interest income offsets the total debt interest expense paid by GLWA on behalf of both entities monthly.
- ✓ Interest income DWSD shortfall represents interest from a budgetary shortfall loan from fiscal years 2016, 2017 and 2018 and is paid in accordance with the 2018 Memorandum of Understanding (MOU). This loan was paid in full in FY 2022.
- ✓ Investment earnings in this report are reflected at book value. Any differences between the Basic Financial report and Cash and Investment section of this Financial Report binder are due to accrued interest.

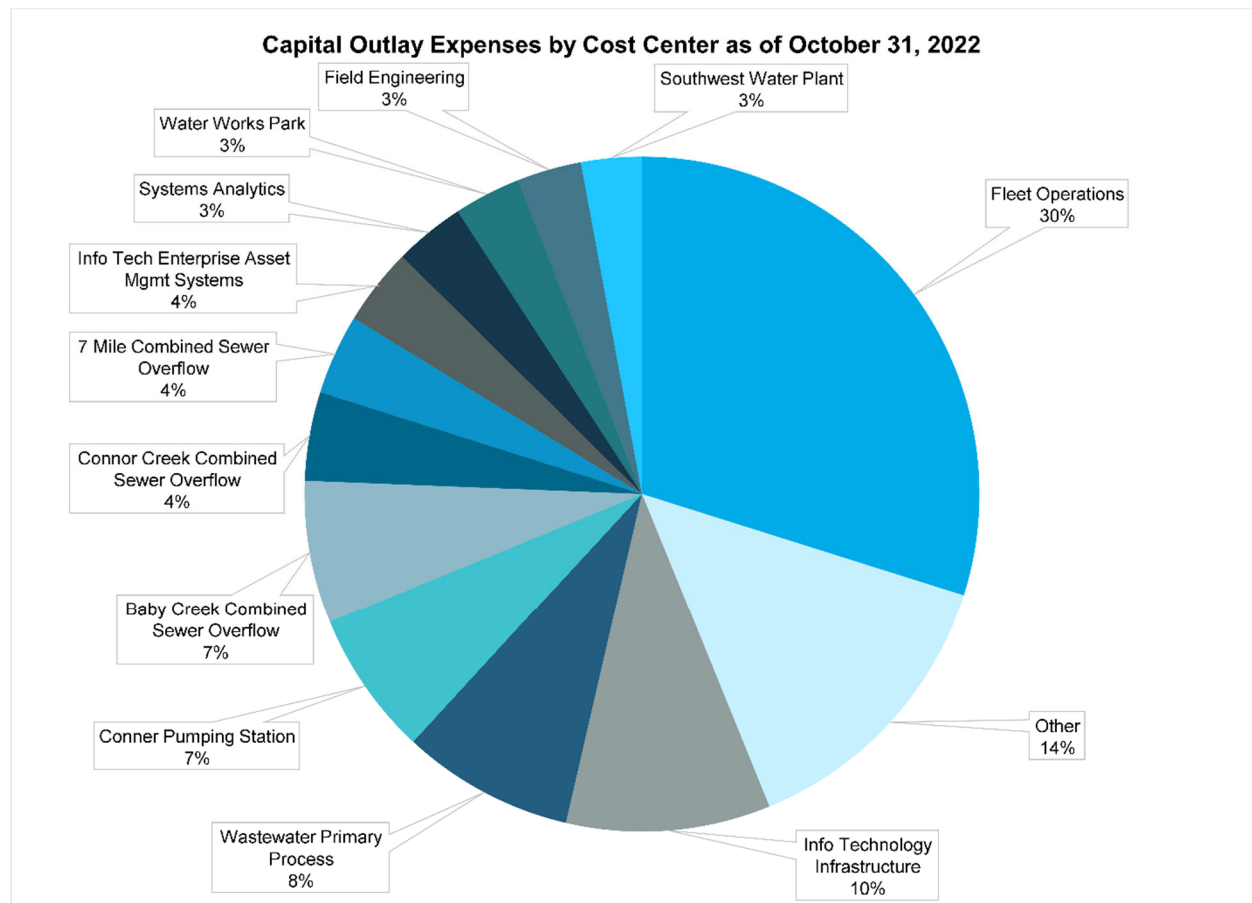
- ✓ Net (increase) decrease in fair value of investments consists of market value of investments and realized gain/loss on sale of investments. FY 2021 market value adjustments for Water and Sewer total \$1.5 million and \$1.0 million, respectively. FY 2022 market value adjustments for Water and Sewer total \$2.8 million and \$3.9 million, respectively. Any difference is due to realized gain or loss on investments.
- ✓ Interest expense, the largest category of nonoperating expenses, is made up of three components:
 - Bonded debt;
 - Lease obligation for the regional assets from the City of Detroit; and
 - Other obligations such as an obligation payable to the City of Detroit for an allocation BC Notes related to assumed DWSD liabilities; acquisition of raw water rights related to the KWA Pipeline.
- ✓ The FY 2022 capital contribution in Nonoperating (revenue) expense represents \$7.0 million from the Oakland Macomb Interceptor Drainage District for assets placed in service during FY 2022.

Financial Activity Charts

Chart 1 – Capital Outlay – Water and Sewer System Combined

Capital Outlay represents purchases of equipment, software, and small facility improvement projects. It *excludes* any capital investment which is included in the monthly construction work-in-progress report related to the Capital Improvement Program. Some items span several months so the entire cost may not have been incurred yet. In addition, items are capitalized only if they meet GLWA's capitalization policy.

Through October 31, 2022, total capital outlay spend is \$3.4 million. Following this chart is a sample list of projects and purchases from the total spend of \$3.4 million:



Note: Due to rounding totals may not equal 100%.

Water Operations: Metering pump repairs (\$57k) and overhead door repair (\$44k).

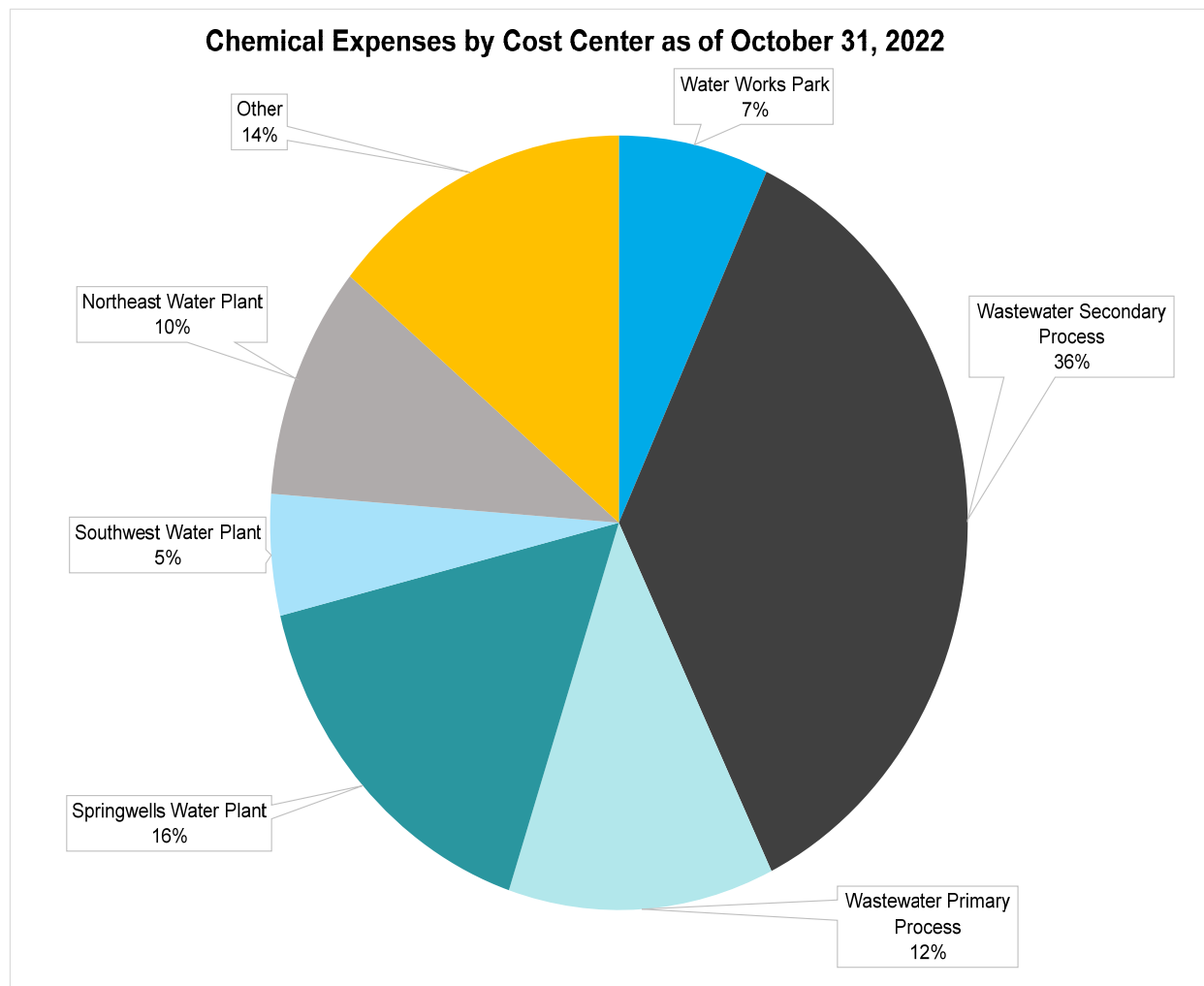
Wastewater Operations: Freud backup electric service installation (\$204k); Rotork replacements (\$188k); Scum hopper (\$153k); Pulsafeeders (\$121k); CSO actuator

replacement (\$112k); WRRF Electrical Buildings project (\$105k); Flushing gate repair (\$88k); CSO PQM Meters (\$73k); VFD Replacement (\$63k); Gate valve actuators (\$50k); Electric actuator (\$50k) and Puritan-Fenkell courtyard accessibility improvements (\$46k).

Centralized & Administrative Facilities: Trucks and vehicles (\$995k); Cloud Backup Project (\$307k); Software (\$110k); Pressure transmitter (\$87k) and computers (\$79k).

Chart 2 – Chemical Expenses – Water and Sewer System Combined

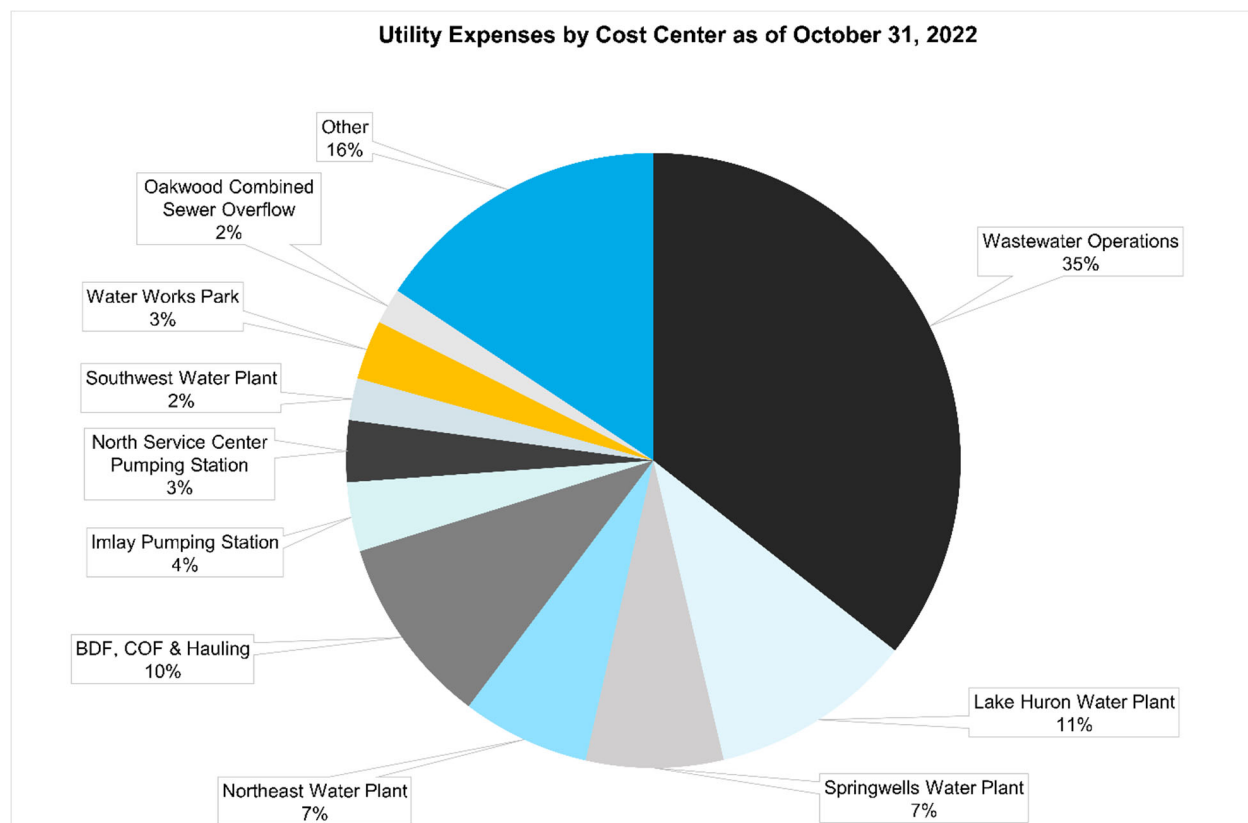
Chemical expenses are \$9.2 million through October 31, 2022. The allocation is shown in the chart below and remains consistent with prior periods.



Note: “Other” includes Combined Sewer Overflow (CSO), portions of the Wastewater process and two departments from Water. Due to rounding totals may not equal 100%.

Chart 3 – Utility Expenses – Water and Sewer System Combined

Utility expenses are \$25.7 million through October 31, 2022. The allocation is shown in the chart below and consistent with prior periods.



Note: Due to rounding totals may not equal 100%.



Financial Operations KPI

This key performance indicator shown in **Chart 1 – Bank Reconciliation Completion Status** below provides a measure of the progress made in the month-end close process which includes bank reconciliations with a completed status at month end. Through October 31, 2022 all reconciliations are up-to-date and complete.

There were four accounts inactivated in the general ledger accounts since September 2022.

Chart 1 – Bank Reconciliation Completion Status

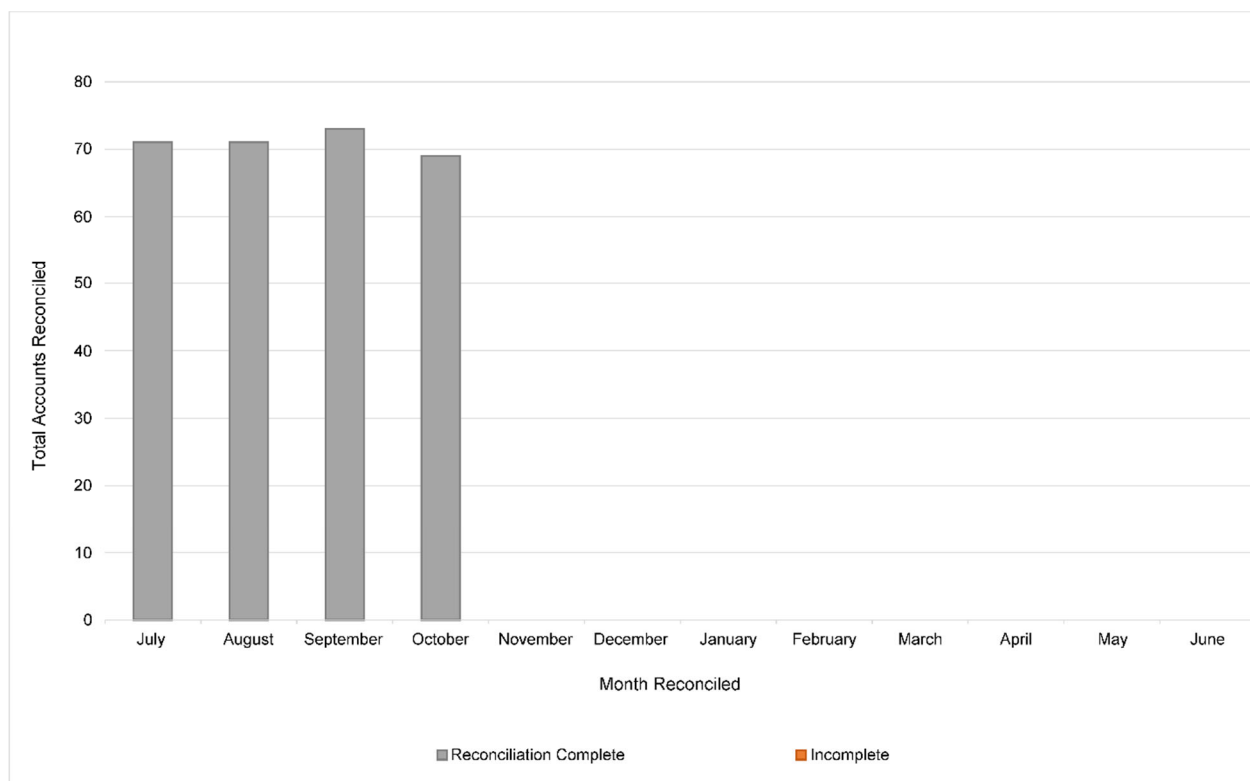


Table 1 – Fiscal Year 2023 GL Cash Account Rollforward

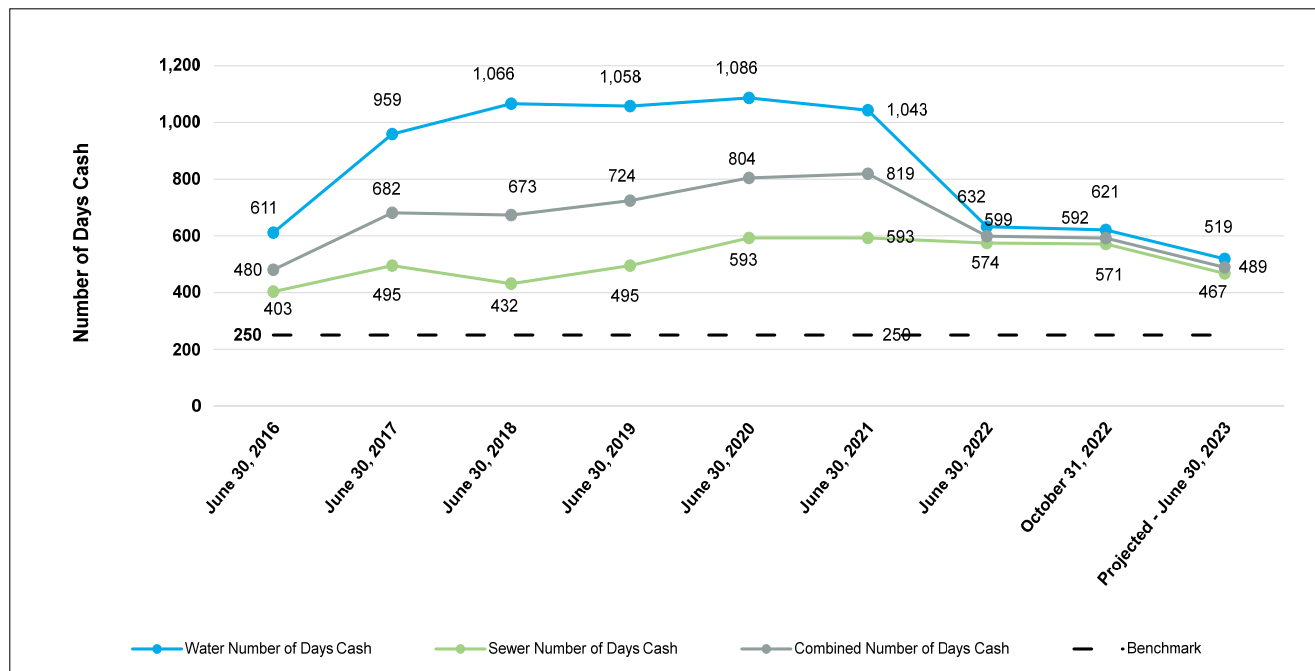
Total GL Cash accounts as of July 1, 2022	72
New GL Cash accounts	2
Inactivated GL Cash accounts	(5)
Total GL Cash accounts as of October 31, 2022	<u>69</u>

Financial Operations KPI - Liquidity

This key performance indicator shown in **Chart 1 – Historical Schedule of Days Cash on Hand – Liquidity – Regional System** and **Table 1 – Schedule of Days Cash on Hand – Liquidity – Regional System** below provides a measure of a utility's ability to meet expenses, cope with emergencies and navigate business interruptions. Liquidity is one of several key metrics monitored by bond rating agencies reflecting an organization's financial strength. A best practice benchmark for this key performance indicator is greater than 250 days cash on hand as shown by the dashed line in Chart 1 below.

Both GLWA Water and Sewer funds continue to exceed this target with Water at 621 and Sewer at 571 days cash on hand as of October 31, 2022. These balances remain strong for the regional system but did decrease in FY 2022 as I&E funds were used as planned to fund capital improvement projects. A September 2022 revenue bond transaction has now replenished the construction bond fund and reduced the emphasis on I&E funding. The FY 2023 projection is calculated based on values from the GLWA FY 2023 – 2027 Budget & Five-Year Plan.

Chart 1 – Historical Schedule of Days Cash on Hand – Liquidity – Regional System



Note: The GLWA Annual Comprehensive Financial Reports are the source of all historic data referenced. Refer to these reports for detailed calculations by fiscal year.

Table 1 – Schedule of Days Cash on Hand – Liquidity – Regional System

	<u>June 30, 2022</u>	<u>October 31, 2022</u>	<u>Projected June 30, 2023</u>
Water Fund			
Cash and Investments - Unrestricted	\$ 238,691,000	\$ 243,791,000	\$ 205,800,000
Operating Expense			
Operating Expense (a)	\$ 264,579,000	\$ 94,571,000	\$ 283,714,000
Less: Depreciation (a)	(123,196,000)	(45,100,000)	(135,300,000)
Less: Amortization of Intangible Asset (a)	(3,567,000)	(1,189,000)	(3,567,000)
Net Operating Expense	\$ 137,816,000	\$ 48,283,000	\$ 144,848,000
Operating Expense per Day	\$ 378,000	\$ 393,000	\$ 397,000
Days Cash			
Number of Days Cash	632	621	519
Sewage Disposal Fund			
Cash and Investments - Unrestricted	\$ 294,174,000	\$ 301,495,000	\$ 249,400,000
Operating Expense			
Operating Expense (a)	\$ 345,372,000	\$ 118,874,000	\$ 356,623,000
Less: Depreciation (a)	(158,014,000)	(53,933,000)	(161,800,000)
Less: Amortization of Intangible Asset (a)	(440,000)	-	-
Net Operating Expense	\$ 186,919,000	\$ 64,941,000	\$ 194,823,000
Operating Expense per Day	\$ 512,000	\$ 528,000	\$ 534,000
Days Cash			
Number of Days Cash	574	571	467
Combined			
Cash and Investments - Unrestricted	\$ 532,865,000	\$ 545,285,000	\$ 455,200,000
Operating Expense			
Operating Expense (a)	\$ 609,951,000	\$ 213,446,000	\$ 640,337,000
Less: Depreciation (a)	(281,210,000)	(99,033,000)	(297,100,000)
Less: Amortization of Intangible Asset (a)	(4,006,000)	(1,189,000)	(3,567,000)
Net Operating Expense	\$ 324,735,000	\$ 113,223,000	\$ 339,670,000
Operating Expense per Day	\$ 890,000	\$ 921,000	\$ 931,000
Days Cash			
Number of Days Cash	599	592	489
<i>Totals may be off due to rounding</i>			

(a) Current year expenses are expressed as a proration of the annual budget for the purposes of this metric.



The monthly Budget to Financial Statements Crosswalk includes the following.

1. Crosswalk Budget Basis to Financial Reporting Basis
2. Explanatory Notes for Crosswalk

Purpose for Crosswalk: The Great Lakes Water Authority establishes a “Revenue Requirements” budget for the purposes of establishing charges for services. The financial report is prepared in accordance with Generally Accepted Accounting Policies for enterprise funds of a local government. Because the budget and the financial statements are prepared using different basis of accounting, the crosswalk reconciles the “Net Difference” to the “Increase/(Decrease) in Net Position” in Table 2 of the Basic Financial Statements in the monthly Financial Report.

The Authority has a Water Master Bond Ordinance and a Sewer Master Bond Ordinance (MBO). The Ordinances provide additional security for payment of the bonds. All revenues of the system are deposited into Revenue Receipts Funds which are held in trust by a trustee. The cash is moved to multiple bank accounts monthly based on 1/12th of the budget as defined in the MBO (“the flow of funds”) for all revenue requirements except for the Debt Service monthly transfer. The Debt Service monthly requirement is computed by the trustee, U.S. Bank. The cash transfer for debt is net of investment earnings that remain in the debt service accounts to be used for debt service.

The budget is prepared on a modified cash basis. The revenue requirements are determined based upon the cash needed to meet the financial commitments as required by the Master Bond Ordinance.

- Operation & Maintenance (O&M) expenses based on an accrual basis
- O&M Legacy Pension Allocation (includes administrative fee) and Accelerated Legacy Pension Allocation (includes B&C notes obligation) based on a cash basis
- Debt Service Allocation based on a cash set aside basis to provide the cash for the debt payments on the due dates
- Lease payments based on a cash basis
- Water Residential Assistance Program based on a percentage of budgeted revenue
- Regional System Improvement & Extension Fund Allocation on a cash basis

Budget: In Table 1A and Table 1B of the Budget to Actual Analysis the ‘Revenues’ section is the accrual basis revenues that are available to meet the ‘Revenue Requirements’. The ‘Revenue Requirements’ section budget column indicates the annual cash transfers to be made.

Financial Reporting: The Authority's financial statements are prepared in conformity with generally accepted accounting principles (GAAP) as applied to government units. The Authority maintains its records on the accrual basis of accounting to conform to GAAP. Revenues from operations, investments and other sources are recorded when earned. Expenses (including depreciation) are recorded when incurred.

Table 1 – Crosswalk Budget Basis to Financial Reporting Basis provides a reconciliation of the “Net Difference” in Table 1A and Table 1B in the Budget to Actual Analysis report to the “Increase/(Decrease) in Net Position” in Table 2 of the Basic Financial Statements in this monthly Financial Report. Explanatory notes follow the Crosswalk shown in Table 1 below.

Table 1 – Crosswalk Budget Basis to Financial Reporting Basis (\$000)
For the Four Months Ended October 31, 2022

	Water	Sewer	Total
Net Revenue Requirement Budget Variance (a)	\$ 6,276	\$ 679	\$ 6,955
Budgetary categories adjustments to financial reporting basis			
Pension delayed accounting election adjustments			
Current year pension transfers/payments recorded as deferral (c)	3,814	6,825	10,639
Prior year pension contribution accounted for in current year (d)	-	-	-
Administrative prepaid adjustment (e)	-	-	-
Debt service (f)	24,226	38,583	62,809
Accelerated pension B&C notes obligation portion (g)	68	152	220
Regional System lease (h)	2,517	1,805	4,322
Right to use lease - warehouse (h)		90	90
WRAP (i)	306	414	720
DWSD short term allocation (j)	-	-	-
Improvement & Extension Fund transfers (j)	9,491	9,358	18,849
Nonbudgeted financial reporting categories adjustments			
Depreciation and amortization (k)	(42,205)	(54,114)	(96,319)
Amortization - debt related (k)	3,793	(1,721)	2,072
Other nonoperating income (k)	-	-	-
Other nonoperating expense (k)	-	-	-
Gain(loss) on disposal of capital assets (k)	-	17	17
Raw water rights obligation (l)	937	-	937
Investment earnings for construction fund (m)	858	888	1,746
Subscription Based Information Tech Arrangements (k)	-	-	-
Interest on DWSD note receivable (n)	-	-	-
Investment earnings unrealized gain/loss (o)	2,807	3,860	6,667
Improvement & extension fund operating expenses (p)	(552)	(1,782)	(2,333)
Capital Contribution (q)	-	198	198
Net Position Increase/(Decrease) per Financial Statements (b)	\$ 12,336	\$ 5,252	\$ 17,589

Table 2 - Explanatory Notes for Crosswalk

- (a) Source: Budget to Actual Table 1A and Table 1B in Monthly Financial Report
- (b) Source: Basic Financial Statements Table 2 in Monthly Financial Report
- (c) Current year pension payments are an expense for budget purposes but not for financial reporting purposes.

- (d) Prior year pension payments are accounted for in the current year financial statements.
- (e) The administrative fee is part of the O&M Legacy Pension shown as an expense for budget purposes. For financial reporting purposes part of the administrative fee is considered prepaid based on the prior year General Retirement System audit information and therefore not an expense for the current year financial reporting. The prepaid portion is adjusted in June each year.
- (f) Debt service (principal and interest payments) are shown as an expense for budget purposes. Most of the adjustment relates to principal payments which are not an expense for financial reporting purposes. A portion of the adjustment relates to interest expense variances on state revolving fund debt due to the timing of payment draws. The cash set aside basis for interest expense generally is the same as the accrual basis for financial reporting.
- (g) The accelerated pension payment includes the obligation payable for the B&C notes. The pension portion is included in item (c) above. This adjustment relates to the B&C note obligation payments. The principal and interest cash basis payments are treated as an expense for budget purposes. The principal portion is not an expense for financial reporting purposes. For financial reporting purposes interest is expensed on an accrual basis which is different from the cash basis.
- (h) The lease payment is included as an expense for budget and includes both principal and interest payments. Most of the adjustment relates to the principal payments which are not an expense for financial reporting purposes. A portion of the adjustment relates to interest expense which is recorded on an accrual basis for financial reporting which is different from the cash basis.
- (i) WRAP is shown as an expense for budget purposes. For financial reporting purposes the expense is not recognized until the funds have been transferred to the WRAP administrator. The adjustment shown is the amount of current year transfers that have not been transferred to the WRAP administrator. Note that there are funds from the prior year that have not been transferred to the WRAP administrator.
- (j) The DWSD short term allocation and Improvement & Extension Fund transfers are shown as an expense for budget purposes but not for financial reporting purposes.
- (k) Certain nonoperating income and expenses are reported in financial statements only.

- (l) The water service contract with Flint includes a license for raw water rights which has been recorded as an asset and liability by the Authority. The contract provides for a credit to Flint as Flint satisfies its monthly bond payment obligation to KWA. This KWA credit is treated as a noncash payment of principal and interest on the liability recorded for the raw water rights. For budget, wholesale customer charges are net of the anticipated KWA credits to Flint as that is the cash that will be received and available to meet the budgeted revenue requirements. For financial reporting purposes the Flint wholesale charges are recorded as the total amount billed. When the KWA credit is issued, the receivable from Flint is reduced and the principal and interest payments on the liability for the raw water rights are recorded as a noncash transaction. Most of the adjustment shown relates to the principal reduction made for the credits applied which are not an expense for financial reporting basis.
- (m) Investment earnings from the construction fund are not shown as revenue in the budget and are shown as revenue in the financial statements. Construction fund investment earnings are excluded from the definition of revenue for budget purposes as they are used for construction costs and are not used to meet the revenue requirements in the budget.
- (n) Interest on a DWSD note receivable is budgeted as part of the Sewer improvement and extension fund and is transferred directly to that fund as payments are made. DWSD does not currently have a note receivable due to GLWA.
- (o) Unrealized gains and losses are recorded annually as required for financial reporting purposes but do not reflect actual investment earnings and are not included in cash basis reporting.
- (p) The Water Improvement and Extension fund and the Sewer Improvement and Extension fund reflect certain expenses relating to repairs paid for through the Water and Sewer Improvement and Extension funds, respectively. These are consolidated expenses for financial reporting purposes but are not reflected in the current Operations and Maintenance budget expenses.



The Monthly Capital Improvement Plan Financial Summary includes the following.

1. Water System Capital Improvement Plan Spend Incurred to date
2. Sewer System Capital Improvement Plan Spend Incurred to date

Capital Improvement Plan Financial Summary

Great Lakes Water Authority (GLWA) capital improvement projects generally span two or more years due to size and complexity. Therefore, the GLWA Board of Directors (Board) adopts a five-year capital improvement plan (CIP). The CIP is a five-year, rolling plan which is updated annually and formally adopted by the GLWA Board of Directors. In addition, the Board of Directors adopts a capital spending ratio assumption (SRA) which allows the realities of capital program delivery to align with the financial plan. The SRA is an analytical approach to bridge the total dollar amount of projects in the CIP with what can realistically be spent due to limitations beyond GLWA's control and/or delayed for nonbudgetary reasons. Those limitations, whether financial or non-financial, necessitate the SRA for budgetary purposes, despite the prioritization established.

This report presents quarterly and monthly CIP spending against the prorated CIP in total and the CIP adjusted for the SRA. The prorated CIP is calculated by dividing the total fiscal year 2023 board-approved CIP plan by twelve equal months. It should be noted that for operational purposes, GLWA utilizes Primavera P6 for refined monthly projections for cash management and project management.

GLWA completed a bond transaction of \$450 million in September 2022 to support water system and sewage disposal system improvements. These funds along with I&E and SRF low-interest loans will fund the capital program going forward.

Capital spend reflects a noticeable variance from budgeted CIP for both the water and sewer funds. For the purposes of this metric, we compare actual spend with the Board-approved budget. For the purposes of managing the financial plan, budget amendments are made to align spending with resources available. First quarter FY 2023 budget amendments were approved by the Board on October 26, 2022, to help achieve that financial alignment.

Chart 1 – Water System Capital Improvement Plan Spend Incurred to Date

As of October 2022, the water system incurred over \$65 million of construction costs to date. This spend represents 100% of the Board-approved FY 2023 CIP plan and 126% of the original, Board-approved spend rate adjusted.

Economic factors affecting the CIP spend are considered by the Board quarterly at which time the Board may amend the planned spend rate adjusted.

Effective July 2022, the Board took action to amend the spend rate adjusted for the water system from 80% to 100%. Current water system spend represents 100% of that Board-approved spend rate adjusted.

Chart 1 – Water System Capital Improvement Plan Spend Incurred to Date – Spend Rate Adjusted

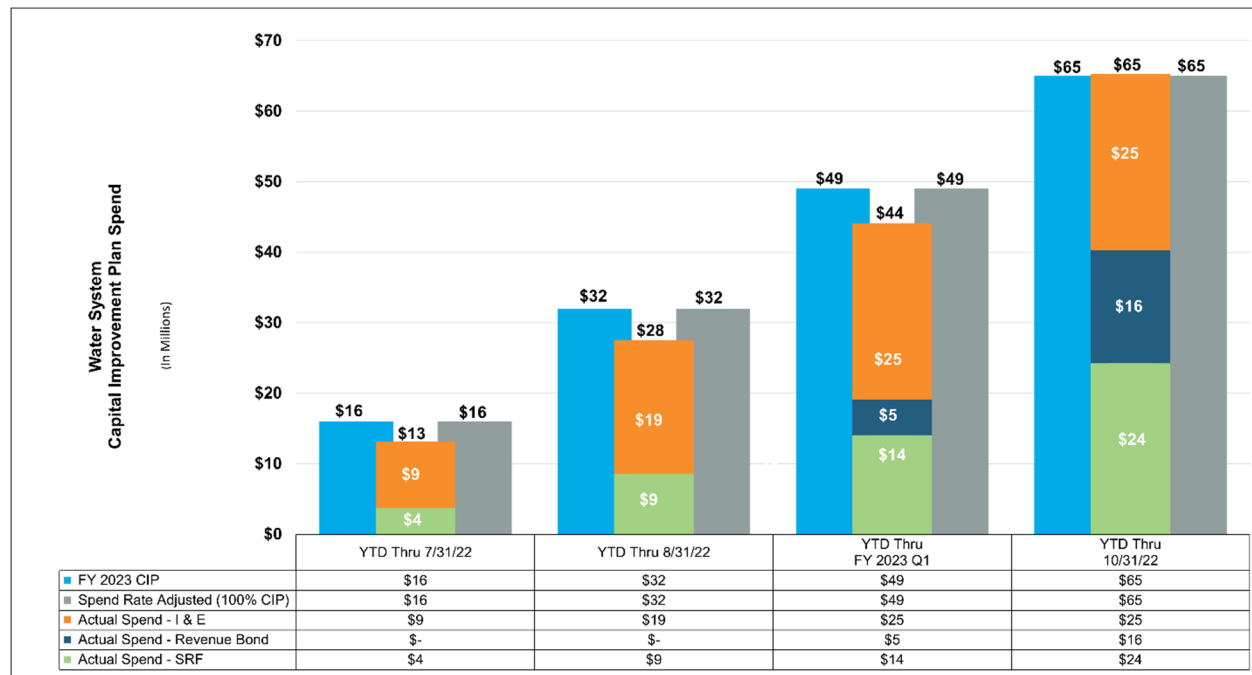


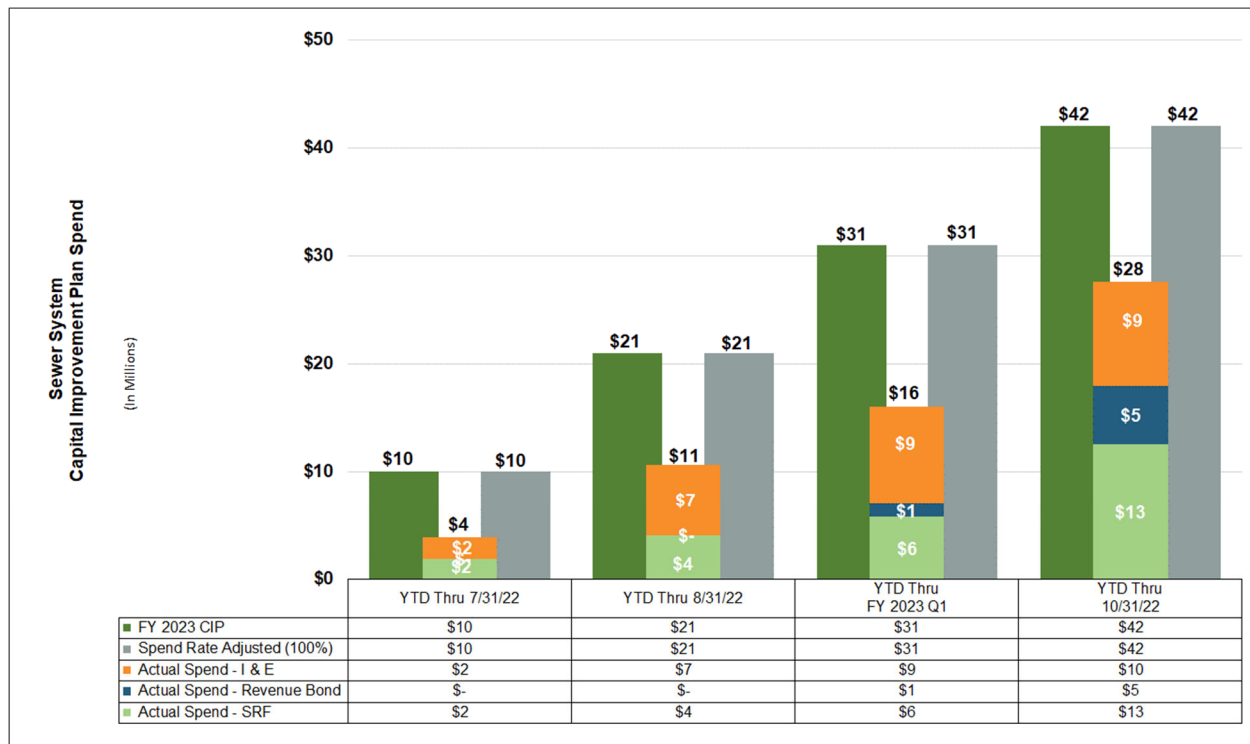
Chart 2 – Sewer System Capital Improvement Plan Spend Incurred to Date

As of October 2022, the Sewer system incurred nearly \$28 million of construction costs to date. This spend represents 66% of the Board-approved FY 2023 CIP plan and 88% of the original, Board-approved spend rate adjusted.

Economic factors affecting the CIP spend are considered by the Board quarterly at which time the Board may amend the planned spend rate adjusted.

Effective July 2022, the Board took action to amend the spend rate adjusted for the sewer system from 75% to 100%. Current sewer system spend represents 66% of that Board-approved spend rate adjusted.

Chart 2 – Sewer System Capital Improvement Plan Spend Incurred to Date – Spend Rate Adjusted





This report includes the following.

1. Master Bond Ordinance (MBO) Required Transfers to Accounts Held by GLWA
2. Master Bond Ordinance (MBO) Required Transfers to Accounts Held by DWSD

MBO Transfers to Accounts Held by GLWA

GLWA Transfers: The Treasury team completes required MBO transfers on the first business day of each month. These transfers are completed in accordance with the Great Lakes Water Authority (GLWA) and Detroit Water & Sewerage Department (DWSD) budgets as approved and adopted by the GLWA Board of Directors and DWSD Board of Water Commissioners annually.

Monthly transfers for Operations & Maintenance (O&M), Pension, and Water Residential Assistance Program (WRAP) are one-twelfth of the annual, budgeted amount. Budget stabilization should not require additional funding due to new, baseline funding levels established as part of the June 2018 Memorandum of Understanding but is included to reflect historical activity. If there are transfers to the Extraordinary Repair & Replacement (ER&R) fund they would be completed annually based on budget and year-end fund status.

Table 1 – GLWA FY 2023 Water MBO Transfers reflects the required transfers for FY 2023 completed through October 1, 2022. MBO transfers for water totaling \$54.7 million have been transferred to GLWA accounts.

Table 2 – GLWA FY 2023 Sewer MBO Transfers reflects the required transfers for FY 2023 completed through October 1, 2022. MBO transfers for sewer totaling \$72.3 million have been transferred to GLWA accounts.

Table 3 – GLWA MBO Transfer History reflects historical transfers for FY 2016 through FY 2023 to date.

Table 1 – GLWA FY 2023 Water MBO Transfers

WATER							
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Water
FY 2023							
July 2022	\$ 12,070,642	\$504,000	\$891,308	\$200,975	-	-	\$13,666,925
August 2022	\$ 12,070,642	\$504,000	\$891,308	\$200,975	-	-	13,666,925
September 2022	\$ 12,070,642	\$504,000	\$891,308	\$200,975	-	-	13,666,925
October 2022	\$ 12,070,642	\$504,000	\$891,308	\$223,209	-	-	13,689,159
Total FY 2023	\$ 48,282,568	\$2,016,000	\$3,565,232	\$826,134	\$ -	\$ -	\$54,689,934

Table 2 – GLWA FY 2023 Sewer MBO Transfers

SEWER							
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Sewer
FY 2023							
July 2022	\$ 15,337,717	\$902,000	\$1,223,950	\$321,925	-	-	\$17,785,592
August 2022	\$ 15,337,717	\$902,000	\$1,223,950	\$321,925	-	-	17,785,592
September 2022	\$ 15,337,717	\$902,000	\$1,223,950	\$321,925	-	-	17,785,592
October 2022	\$ 16,534,372	\$902,000	\$1,223,950	\$300,892	-	-	18,961,214
Total FY 2023	\$ 62,547,523	\$3,608,000	\$4,895,800	\$1,266,667	\$ -	\$ -	\$72,317,990

Table 3 – GLWA MBO Transfer History

GLWA MBO Transfer History							
WATER							
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Water
Total FY 2016	\$71,052,000	\$6,037,100	\$10,297,200	\$1,983,300	\$2,326,900	\$606,000	\$92,302,500
Total FY 2017	111,879,600	6,037,200	10,297,200	2,077,200	360,000	-	130,651,200
Total FY 2018	121,562,604	6,048,000	10,695,696	2,159,400	-	-	140,465,700
Total FY 2019	121,562,604	6,048,000	10,695,696	2,061,000	-	-	140,367,300
Total FY 2020	126,840,204	6,048,000	10,695,683	1,980,804	-	-	145,564,691
Total FY 2021	134,127,300	6,048,000	10,695,700	2,324,200	-	-	153,195,200
Total FY 2022	143,933,800	6,048,000	10,695,700	2,376,600	-	-	163,054,100
Total FY 2023 (4 months)	48,282,568	2,016,000	3,565,232	826,134	-	-	54,689,934
Life to Date	\$879,240,680	\$44,330,300	\$77,638,107	\$15,788,638	\$2,686,900	\$606,000	\$1,020,290,625
SEWER							
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Sewer
Total FY 2016	\$100,865,600	\$10,838,400	\$14,025,800	\$2,523,400	\$5,591,700	\$779,600	\$134,624,500
Total FY 2017	175,858,800	10,838,400	14,026,800	2,654,400	2,654,400	-	206,032,800
Total FY 2018	191,079,396	10,824,000	14,687,496	2,760,804	-	-	219,351,696
Total FY 2019	191,079,396	10,824,000	14,687,496	2,870,992	-	-	219,461,884
Total FY 2020	181,925,800	10,824,000	14,687,517	2,887,300	-	-	210,324,617
Total FY 2021	182,296,000	10,824,000	14,687,500	3,764,300	-	-	211,571,800
Total FY 2022	191,908,600	10,824,000	14,687,400	3,868,700	-	-	221,288,700
Total FY 2023 (4 months)	62,547,523	3,608,000	4,895,800	1,266,667	-	-	72,317,990
Life to Date	\$1,277,561,115	\$79,404,800	\$106,385,809	\$22,596,563	\$8,246,100	\$779,600	\$1,494,973,987

MBO Required and Lease Payment Transfers to DWSD

DWSD Transfers: The GLWA Treasury team completes the required MBO transfers on the first business day of each month. These transfers are completed in accordance with the GLWA and DWSD budgets as approved and adopted by the GLWA Board of Directors and DWSD Board of Water Commissioners annually. Transfers are coordinated with other areas of GLWA Financial Services in advance of the first business day of each month. GLWA Treasury sends confirmation of transfers made to DWSD Treasury.

Monthly transfers for O&M and O&M Pension are one-twelfth of the annual, budgeted amount. The annual lease payment, as stated in the Water & Sewer Lease Agreements, is \$22,500,000 for Water and \$27,500,000 for Sewer. The monthly lease transfer is one-twelfth of the amount as stated in the Lease agreements unless otherwise designated by DWSD. Per Section 3.5 of the Lease, the Lease payment may be used for (a) bond principal and interest for Local System Improvements, (b) bond principal and interest for the City's share of common-to-all System Improvements, and (c) Local System improvements.

Table 4 – DWSD FY 2023 Water MBO Transfers reflects the required transfers for FY 2023 completed through October 1, 2022. MBO transfers for Water totaling \$18.2 million have been transferred to accounts held by DWSD. For FY 2023, DWSD has requested that \$2,922,100 of the lease payment be utilized to offset a portion of debt service.

Table 5 – DWSD FY 2023 Sewer MBO Transfers reflects the required transfers for FY 2023 completed through October 1, 2022. MBO transfers for Sewer totaling \$29.4 million have been transferred to accounts held by DWSD. For FY 2023, DWSD has requested that \$4,388,300 of the lease payment be utilized to offset a portion of debt service.

Table 6 – DWSD Water MBO and Lease Payment Transfer History reflects historical transfers for FY 2016 through FY 2023 to date.

Table 7 – DWSD Sewer MBO and Lease Payment Transfer History reflects historical transfers for FY 2016 through FY 2023 to date.

Table 4 – DWSD FY 2023 Water MBO Transfers

WATER				
	<u>Operations & Maintenance</u>	<u>Pension</u>	<u>Lease Payment (I&E Fund)</u>	<u>Total Water</u>
FY 2023				
July 2022	\$2,540,833	\$356,000	\$1,150,750	\$4,047,583
August 2022	2,540,833	356,000	1,150,750	4,047,583
September 2022	2,540,833	356,000	1,150,750	4,047,583
October 2022	3,884,345	356,000	1,791,739	6,032,084
Total FY 2023	\$11,506,844	\$1,424,000	\$5,243,989	\$18,174,833

Table 5 – DWSD FY 2023 Sewer MBO Transfers

SEWER				
	<u>Operations & Maintenance</u>	<u>Pension</u>	<u>Lease Payment (I&E Fund)</u>	<u>Total Sewer</u>
FY 2023				
July 2022	\$5,282,500	\$238,000	\$2,291,667	\$7,812,167
August 2022	5,282,500	238,000	2,291,667	7,812,167
September 2022	5,282,500	238,000	2,291,667	7,812,167
October 2022	3,949,878	238,000	1,804,078	5,991,956
Total FY 2023	\$19,797,378	\$952,000	\$8,679,079	\$29,428,457

Table 6 – DWSD Water MBO and Lease Payment Transfer History

Transfers to DWSD				
WATER				
	Operations & Maintenance	Operations & Maintenance Pension	Lease Payment (I&E Fund)	Total Water
FY 2016 *				
MBO/Lease Requirement	\$26,185,600	\$4,262,700	\$22,500,000	\$52,948,300
Offset to Debt Service	-	-	(2,326,900)	(2,326,900)
Net MBO Transfer	26,185,600	4,262,700	20,173,100	50,621,400
FY 2017				
MBO/Lease Requirement	33,596,400	4,262,400	22,500,000	60,358,800
Offset to Debt Service	-	-	-	-
Net MBO Transfer	33,596,400	4,262,400	22,500,000	60,358,800
FY 2018				
MBO/Lease Requirement	35,059,704	4,272,000	22,500,000	61,831,704
Offset to Debt Service	-	-	(1,875,000)	(1,875,000)
Net MBO Transfer	35,059,704	4,272,000	20,625,000	59,956,704
FY 2019				
MBO/Lease Requirement	35,484,300	4,272,000	22,500,000	62,256,300
Offset to Debt Service	-	-	(3,972,200)	(3,972,200)
Net MBO Transfer	35,484,300	4,272,000	18,527,800	58,284,100
FY 2020				
MBO/Lease Requirement	34,662,400	4,272,000	22,500,000	61,434,400
Offset to Debt Service	-	-	(3,548,000)	(3,548,000)
Net MBO Transfer	34,662,400	4,272,000	18,952,000	57,886,400
FY 2021				
MBO/Lease Requirement	35,833,900	4,272,000	22,500,000	62,605,900
Offset to Debt Service	-	-	(8,278,300)	(8,278,300)
Net MBO Transfer	35,833,900	4,272,000	14,221,700	54,327,600
FY 2022				
MBO/Lease Requirement	29,989,000	4,272,000	22,500,000	56,761,000
Offset to Debt Service	-	-	(8,925,400)	(8,925,400)
Net MBO Transfer	29,989,000	4,272,000	13,574,600	47,835,600
FY 2023 (4 months)				
MBO/Lease Requirement	11,506,844	1,424,000	7,500,000	20,430,844
Offset to Debt Service	-	-	(2,256,011)	(2,256,011)
Net MBO Transfer	11,506,844	1,424,000	5,243,989	18,174,833
Life-to-Date				
MBO/Lease Requirement	242,318,148	31,309,100	165,000,000	438,627,248
Offsets	-	-	(31,181,811)	(31,181,811)
Total Water	242,318,148	31,309,100	133,818,189	407,445,437

Table 7 – DWSD Sewer MBO and Lease Payment Transfer History

	SEWER			
	Operations & Maintenance	Operations & Maintenance Pension	Lease Payment (I&E Fund)	Total Sewer
FY 2016 *				
MBO/Lease Requirement	\$19,774,300	\$2,861,800	\$27,500,000	\$50,136,100
Offset to Debt Service	-	-	(19,991,500)	(19,991,500)
Total MBO Transfer	19,774,300	2,861,800	7,508,500	30,144,600
FY 2017				
MBO/Lease Requirement	41,535,600	2,862,000	27,500,000	71,897,600
Offset to Debt Service	-	-	-	-
Total MBO Transfer	41,535,600	2,862,000	27,500,000	71,897,600
FY 2018				
MBO/Lease Requirement	60,517,992	2,856,000	27,500,000	90,873,992
Offset to Debt Service	-	-	(9,166,664)	(9,166,664)
Total MBO Transfer	60,517,992	2,856,000	18,333,336	81,707,328
FY 2019				
MBO/Lease Requirement	56,767,920	2,856,000	27,500,000	87,123,920
Offset to Debt Service	-	-	(4,415,000)	(4,415,000)
Total MBO Transfer	56,767,920	2,856,000	23,085,000	82,708,920
FY 2020				
MBO/Lease Requirement	62,343,500	2,856,000	27,500,000	92,699,500
Offset to address shortfall	(7,100,000)	-	-	(7,100,000)
Offset to Debt Service	-	-	(5,032,700)	(5,032,700)
Total MBO Transfer	55,243,500	2,856,000	22,467,300	80,566,800
FY 2021				
MBO/Lease Requirement	69,915,700	2,856,000	27,500,000	100,271,700
Offset to Debt Service	-	-	(3,257,200)	(3,257,200)
Total MBO Transfer	69,915,700	2,856,000	24,242,800	97,014,500
FY 2022				
MBO/Lease Requirement	61,301,000	2,856,000	27,500,000	90,735,453
Offset to Debt Service	-	-	(5,529,297)	(4,607,750)
Total MBO Transfer	61,301,000	2,856,000	21,970,703	86,127,703
FY 2023 (4 months)				
MBO/Lease Requirement	19,797,378	952,000	9,166,667	29,916,045
Offset to Debt Service	-	-	(487,588)	(487,588)
Total MBO Transfer	19,797,378	952,000	8,679,079	29,428,457
Life-to-Date				
MBO/Lease Requirement	391,953,390	20,955,800	201,666,667	613,654,310
Offsets	(7,100,000)	-	(47,879,949)	(54,058,402)
Total Sewer	384,853,390	20,955,800	153,786,718	559,595,908

* Note: FY 2016 lease transfer amounts shown do not include prepayment on the lease amount for the 6 months period before bifurcation.



This report includes the following:

1. Monthly Cash Balances Compared to Investment Income
2. Cash Balance Detail

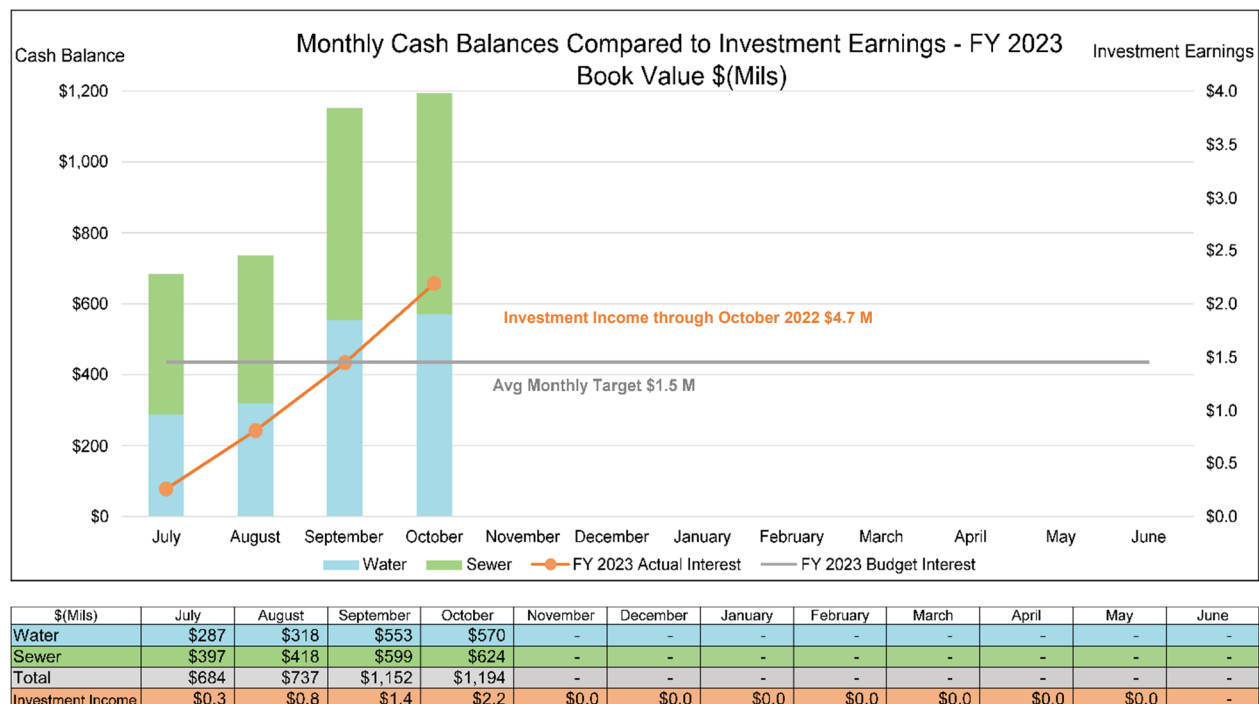
Monthly Cash Balances Compared to Investment Income

GLWA's investment holdings comply with the requirements of Public Act 20 of 1948, as amended and the GLWA Investment Policy. The cash balances shown in this report include bank deposits, money market funds, a local government investment pool, U.S. Treasuries, Federal Agencies, and commercial paper.

Cash and investment balances change each month based on Master Bond Ordinance (MBO) funding requirements, operational needs, capital spending pace, and mandatory debt payments. Investment income fluctuates monthly based on cash and investment balances as well as market conditions and investment strategy. For the month of October 2022, GLWA earned investment income of \$2.2 million and the cumulative FY 2023 earnings through October 2022 is \$4.7 million. Total investment income reported includes earnings from revenue requirement funds as well as construction bond funds.

GLWA continues to refine cash flows and work with its investment advisor to identify strategies to maximize future investment income while meeting the objectives of safety and liquidity.

Chart 1 – Monthly Cash Balances Compared to Investment Income – Through October 2022



Cash Balance Detail

Funds Held By GLWA: GLWA cash balances are held in accounts as defined by the Master Bond Ordinance. The accounts are funded by monthly transfers, as stipulated in the MBO, on the first business day of each month. The “operations and maintenance” (O&M) fund transfer amounts are based upon the annual O&M budget approved by the GLWA Board of Directors for the regional systems and by the Board of Water Commissioners for the Detroit Water & Sewerage Department (DWSD) local system budgets. The water and sewer funds held by GLWA and their purpose, as defined by the MBO, are listed below.

Funds Held Within Trust:

- Receiving – all retail and wholesale revenues collected which are distributed in subsequent month(s)
- Debt Service – funds set aside for debt service and debt reserve requirements
- Pension Obligation – funds set aside to meet GLWA’s annual funding requirements for the legacy General Retirement System Pension Plan
- Water Residential Assistance Program (WRAP) – funds set aside to be used to provide financial assistance to qualified residents throughout the local and regional water system as directed by program guidelines
- Budget Stabilization – funds held by GLWA on behalf of DWSD that can be applied against shortfalls in retail revenues
- Emergency Repair & Replacement (ER&R) – funds set aside to pay the costs for major unanticipated repairs and replacements of the local and regional systems
- Improvement & Extension (I&E) – funds set aside to be used for the improvements, enlargements, and extensions of the regional system

Funds Held Outside Trust:

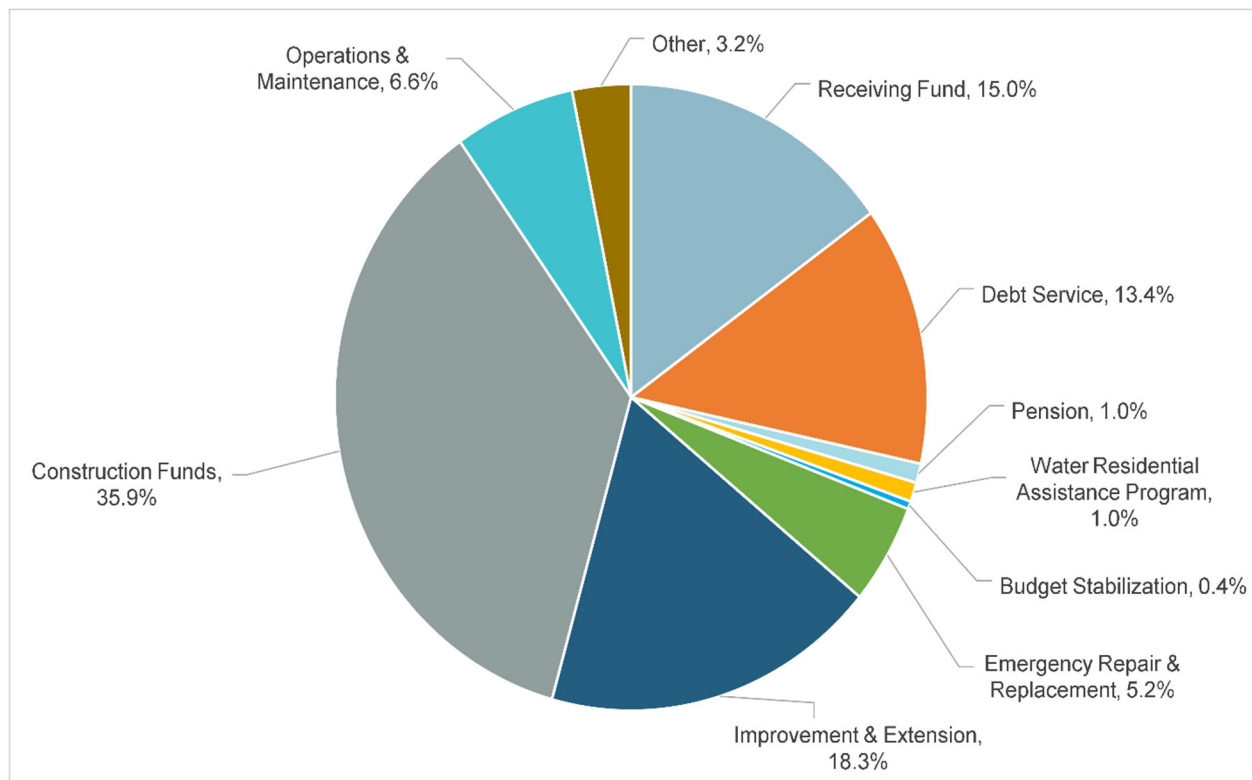
- Bond Proceeds – funds raised from debt issuance used for costs of repairs, construction, and improvements of the regional system
- Operations & Maintenance (O&M) – funds used to meet the operational and maintenance requirements of the regional system
- Other – retainage funds held on behalf of contractors and security deposit funds held on behalf of the City of Flint

A [chart](#) depicting the follow of funds is online at glwater.org as well as the [MBO](#) documents.

Chart 2 – Cash Balances - Water Funds as of October 2022 - Shows the allocation of the balance among the different categories defined in the section above. The total cash balance for Water Funds as of October 31, 2022 is \$570 million. The allocation of balances among the I&E, bond proceeds, and debt service reserve funds reflects GLWA's commitment to funding capital improvements and meeting debt reserve requirements while simultaneously increasing I&E resources to fund pay-as-you-go capital funding to reduce long-term debt in the future.

GLWA completed a bond transaction of \$225 million in September 2022 to support water system improvements. These funds along with I&E and SRF low-interest loans will fund the capital program going forward.

Chart 2 – Cash Balances - Water Funds as of October 2022

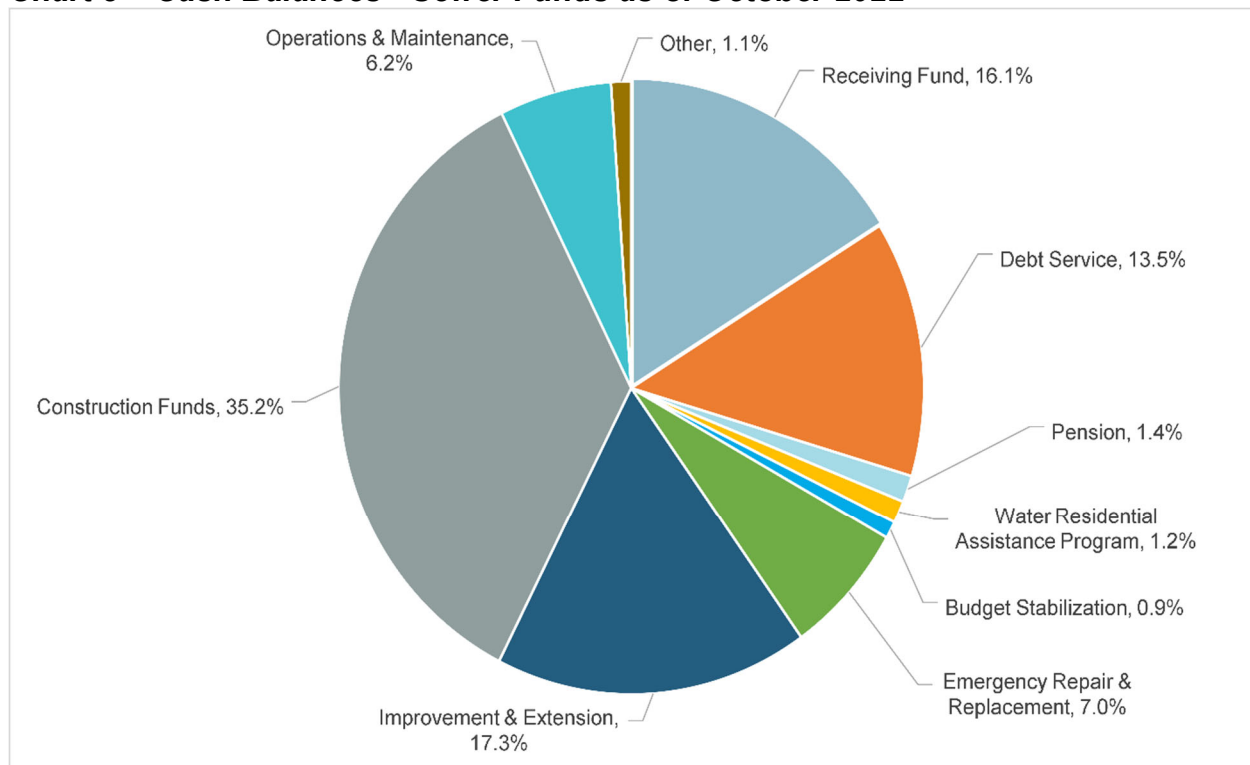


Note: Due to rounding totals may not equal 100%.

Chart 3 – Cash Balances - Sewer Funds as of October 2022 - Shows the allocation of the balance among the different funds defined in the section above. The total cash balance for Sewer Funds as of October 31, 2022 is \$624 million. Like the Water Funds, the allocation of balances among the I&E, bond proceeds, and debt service reserve funds reflects GLWA's commitment to funding capital improvements and meeting debt reserve requirements while simultaneously increasing I&E resources to fund pay-as-you-go capital funding to reduce long-term debt in the future.

In conjunction with the Water Fund transaction, GLWA completed a bond transaction of \$225 million in September 2022 to support sewage disposal system improvements. These funds along with I&E and SRF low-interest loans will fund the capital program going forward.

Chart 3 – Cash Balances - Sewer Funds as of October 2022



Note: Due to rounding totals may not equal 100%.



Retail Revenues, Receivables, and Collections: Pursuant to the terms of the lease agreement between the City of Detroit and the Great Lakes Water Authority (GLWA), the Detroit Water & Sewerage Department (DWSD) serves as GLWA's agent for billing activities for the City of Detroit retail customer class. All water and sewer service collections from DWSD customers are deposited in a trust account and are administered in accordance with the GLWA Master Bond Ordinance.

The Monthly Retail Revenues, Receivables, & Collections Report includes the following.

1. DWSD Retail Water Revenue Billings and Collections
2. DWSD Retail Sewer Revenue Billings and Collections
3. DWSD Retail Water & Sewer System Accounts Receivable Aging Report

Note: *Wholesale customer revenues are billed by the Great Lakes Water Authority.*

DWSD Retail Water Billings and Collections

Retail Billing Basis: DWSD bills retail customers monthly. Customers are billed throughout the month in cycles based on a meter reading schedule beginning with residential accounts and ending with commercial and industrial customers.

Table 1 - DWSD Retail Billings shows the FY 2023 water usage and billed revenue which are provided by DWSD staff. As of October 31, 2022, the DWSD usage was at 107.85% of the budget and billed revenue was at 103.33% of budget.

DWSD Retail Water Collections: The collections represent payments made by DWSD retail customers. These receipts are deposited directly into a lockbox with a trustee for administration of the flow of funds defined by GLWA's Master Bond Ordinance.

Table 2 - Retail Water Collections shows collections by month for the past 12 months compared to collections for the prior year as well as the calculated difference between the periods.

Table 1 – DWSD Retail Water Billing

RETAIL WATER CUSTOMERS								
Month (1)	FY 2023 - Original Budget		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	257,000	11,956,000	244,749	9,490,589	(12,251)	(2,465,411)	266,704	10,064,683
August	248,900	11,711,000	277,313	13,301,941	28,413	1,590,941	264,644	9,994,589
September	218,600	10,776,000	234,806	11,591,601	16,206	815,601	232,348	9,169,300
October	198,900	10,184,900	239,062	11,730,809	40,162	1,545,909	204,290	8,422,092
November	194,500	9,954,500					209,830	8,544,611
December	193,700	9,902,000					204,072	8,442,152
January	198,600	10,050,700					221,369	8,819,430
February	190,400	9,842,000					204,489	8,438,300
March	204,900	10,276,600					233,190	9,221,716
April	192,400	9,922,800					192,495	8,305,331
May	214,500	10,567,000					245,471	9,530,928
June	245,700	11,523,800					272,811	10,281,954
Total	2,558,100	126,667,300	995,930	46,114,940	72,530	1,487,040	2,751,713	109,235,086
Subtotals ytd	923,400	44,627,900	995,930	46,114,940	72,530	1,487,040		
Achievement of Budget			107.85%	103.33%				

(1) Figures are stated as "Service Months"; that is, July figures represent bills issued in August, etc.

(2) Retail Revenues include Miscellaneous Revenues and Penalties

Table 2 – DWSD Retail Water Collections

Water				
Month	Current Year	Prior Year	Variance	Ratio
November	7,926,331	10,803,009	(2,876,678)	-26.63%
December	8,121,586	7,409,888	711,698	9.60%
January	6,919,040	7,884,889	(965,849)	-12.25%
February	10,156,126	6,426,553	3,729,573	58.03%
March	11,093,125	8,458,827	2,634,298	31.14%
April	7,431,900	7,536,272	(104,372)	-1.38%
May	7,660,852	7,365,204	295,648	4.01%
June	9,123,179	8,917,831	205,348	2.30%
July	8,518,373	8,387,705	130,668	1.56%
August	9,636,219	8,588,507	1,047,712	12.20%
September	5,082,383	8,041,683	(2,959,300)	-36.80%
October	13,082,745	8,512,614	4,570,131	53.69%
Rolling, 12-Month Total	104,751,859	98,332,982		
Rolling, 12-Month Average	8,729,322	8,194,415		

DWSD Retail Sewer Billings and Collections

Retail billing basis: DWSD bills retail customers monthly. Customers are billed throughout the month in cycles based on a meter reading schedule beginning with residential accounts and ending with commercial and industrial customers.

Table 3 - DWSD Retail Sewer Billings shows the FY 2023 sewer billed revenue which are provided by DWSD staff. As of October 31, 2022, the DWSD usage was at 105.85% of the budget and billed revenue was at 103.23% of budget. DWSD changed their manner of reporting sewer usage as of October 31, 2022. Usage now reflects actual amounts billed net of adjustments. This change is reflected retroactively in the usage reported below for August through October.

DWSD Retail Sewer Collections: The collections represent payments made by DWSD retail customers. These receipts are deposited directly into a lockbox with a trustee for administration of the flow of funds defined by GLWA's Master Bond Ordinance.

Table 4 – DWSD Retail Sewer Collections shows collections by month for the past 12 months compared to collections for the prior year as well as the calculated difference between the periods.

Table 3 - DWSD Retail Sewer Billings

RETAIL SEWER CUSTOMERS								
Month (1)	FY 2023 - Original Budget		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	211,900	27,858,000	223,661	29,297,748	11,761	1,439,748	219,791	29,462,804
August	217,600	28,027,300	231,809	29,640,202	14,209	1,612,902	249,522	31,231,624
September	188,400	27,285,000	197,455	27,523,933	9,055	238,933	215,748	29,401,234
October	182,400	27,102,800	194,154	27,375,180	11,754	272,380	190,483	27,936,280
November	167,500	26,696,800					194,135	28,032,939
December	166,500	26,780,100					189,283	27,836,982
January	169,200	26,797,900					203,526	28,493,782
February	166,100	26,702,400					189,525	27,837,984
March	176,100	26,994,800					212,176	29,032,277
April	166,400	26,761,800					179,291	27,196,557
May	182,100	27,166,400					220,082	29,382,758
June	210,600	27,861,300					242,746	30,704,517
Total	2,204,800	326,034,600	847,079	113,837,063	46,779	3,563,963	2,506,308	346,549,738
Subtotals ytd	800,300	110,273,100	847,079	113,837,063		3,563,963		
Achievement of Budget/Goal			105.85%	103.23%				

(1) Figures are stated as "Service Months"; that is, July figures represent bills issued in August, etc.

(2) Retail Revenues include Miscellaneous Revenues and Penalties

Table 4 – DWSD Retail Sewer Collections

Sewer				
Month	Current Year	Prior Year	Variance	Ratio
November	23,505,249	28,730,139	(5,224,890)	-18.19%
December	24,880,743	22,856,217	2,024,526	8.86%
January	23,020,491	22,057,276	963,215	4.37%
February	24,495,922	22,777,467	1,718,455	7.54%
March	29,410,086	25,002,508	4,407,578	17.63%
April	22,115,076	21,196,170	918,906	4.34%
May	20,952,592	21,888,687	(936,095)	-4.28%
June	25,922,279	32,508,249	(6,585,970)	-20.26%
July	30,935,343	24,185,252	6,750,091	27.91%
August	26,064,896	25,036,198	1,028,698	4.11%
September	15,261,467	22,635,796	(7,374,329)	-32.58%
October	28,182,933	25,119,240	3,063,693	12.20%
Rolling 12-Month Total	294,747,077	293,993,199		
Rolling, 12-Month Average	24,562,256	24,499,433		

DWSD Retail Water and Sewer Accounts Receivable Aging Report

The DWSD detailed accounts receivable aging is categorized by customer category.

Table 5 is a summary of the monthly sales, total receivables, bad debt allowance and net Water and Sewer receivables as of October 31, 2022 with comparative totals from June 30, 2021 and June 30, 2020. This table does not include past due accounts that have been transferred to the City of Detroit for collection as tax liens.

The table provides a comparison of days in accounts receivable calculated as net receivables divided by daily sales and confirms that over time days in AR is declining due in large part to a consistent practice of recognizing past due amounts over 60 days as bad debt expense. To the extent this allowance is adjusted, and bad debt expense is recognized in the DWSD budget, it does not impact GLWA.

Table 6 is a summary of the total, current and non-current Water and Sewer receivables by category as of October 31, 2022 with comparative totals from October 31, 2021. This table does not include past due accounts that have been transferred to the City of Detroit for collection as tax liens.

The Total Balance and Total Bad Debt Allowance as of October 31, 2022 are reflective of the values in both the Table 5 Summary and Table 6 breakdown.

Table 5 – DWSD Retail Accounts Receivable Aging Report – Summary

Summary					
Period Ending	Monthly Sales	Receivables			Days in AR (1)
		Total	Allowance	Net	
June 30, 2020	\$ 33,061,000	\$ 213,846,000	\$ (142,882,000)	\$ 70,964,000	64
June 30, 2021	\$ 36,335,000	\$ 248,055,000	\$ (200,146,000)	\$ 47,909,000	40
June 30, 2022	\$ 39,022,000	\$ 300,346,000	\$ (253,924,000)	\$ 46,422,000	36
October 31, 2022	\$ 38,947,000	\$ 324,117,000	\$ (263,509,000)	\$ 60,608,000	47
Totals may be off due to rounding					

(1) Days in AR is calculated as net receivables divided by daily sales (monthly sales/30 days)

Table 6 – DWSD Retail Accounts Receivable Aging Report – Water & Sewer Combined

Sales Class	# of Accounts	Avg. Balance	Current	> 30 Days	> 60 Days	> 180 Days	A/R Balance
Residential	197,012	\$ 847.81	\$ 14,261,000 8.5%	\$ 10,892,000 6.5%	\$ 25,957,000 15.5%	\$ 115,918,000 69.4%	\$ 167,029,000 100.0%
Commercial	20,899	1,626.65	9,398,000 27.6%	2,984,000 8.8%	4,993,000 14.7%	16,620,000 48.9%	33,995,000 100.0%
Industrial	3,578	5,018.66	5,709,000 31.8%	1,449,000 8.1%	2,465,000 13.7%	8,334,000 46.4%	17,957,000 100.0%
Tax Exempt	3,830	935.11	652,000 18.2%	228,000 6.4%	528,000 14.7%	2,173,000 60.7%	3,581,000 100.0%
Government	78,984	387.46	4,574,000 14.9%	3,367,000 11.0%	4,226,000 13.8%	18,435,000 60.2%	30,603,000 100.0%
Drainage	32,686	1,026.09	2,678,000 8.0%	1,577,000 4.7%	4,604,000 13.7%	24,680,000 73.6%	33,539,000 100.0%
Subtotal - Active Accounts	336,989	\$ 850.78	\$ 37,273,000 13.0%	\$ 20,497,000 7.1%	\$ 42,773,000 14.9%	\$ 186,161,000 64.9%	\$ 286,704,000 100.0%
Inactive Accounts	319,389	117.14	72,000 0.2%	74,000 0.2%	547,000 1.5%	36,719,000 98.1%	37,413,000 100.0%
Total	656,378	\$ 493.80	\$ 37,345,000	\$ 20,571,000	\$ 43,321,000	\$ 222,880,000	\$ 324,117,000
% of Total A/R			11.5%	6.3%	13.4%	68.8%	100.0%
Water Fund	248,831	264.46	\$ 10,961,000	\$ 5,145,000	\$ 8,303,000	\$ 41,396,000	\$ 65,806,000
Sewer Fund	290,241	889.99	\$ 26,384,000	\$ 15,426,000	\$ 35,017,000	\$ 181,484,000	\$ 258,311,000
Total October 30, 2022 (a)	656,378	493.80	\$ 37,345,000	\$ 20,571,000	\$ 43,321,000	\$ 222,880,000	\$ 324,117,000
Water Fund- Allowance							\$ (50,002,000)
Sewer Fund- Allowance							\$ (213,507,000)
Total Bad Debt Allowance							\$ (263,509,000)
Comparative - October 2021 (b)	638,663	431.87	\$ 31,992,000	\$ 17,896,000	\$ 43,847,000	\$ 182,084,000	\$ 275,818,000
Difference (a) - (b)	17,715	61.93	\$ 5,354,000	\$ 2,675,000	\$ (527,000)	\$ 40,797,000	\$ 48,298,000



The Monthly Wholesale Billings, Receivables, & Collections Report includes the following.

1. Wholesale Water Billings and Collections
2. Wholesale Sewer Billings and Collections
3. City of Highland Park Billings and Collections
4. Wholesale Water & Sewer Accounts Receivable Aging Report

Wholesale Water Billings and Collections

Wholesale Water Contracts: Great Lakes Water Authority (GLWA) provides wholesale water service to 87 member-partners through a variety of service arrangements.

Service Arrangement Type

Model Contract	84
Emergency	1
Older Contracts	2
Total	87

Note: Services are provided to the Detroit Water & Sewerage Department (DWSD) via a Water and Sewer Services Agreement (WSSA). See the “Retail Revenues, Receivables, and Collections Report” section of this monthly report.

Wholesale Water Billing Basis: Beginning with FY 2016, wholesale water charges were restructured to create a more stable revenue stream by using a historical rolling average to project customer volumes which accounts for 40% of the monthly charges and 60% of the annual customer revenue requirement as a monthly fixed charge.

Table 1 - Wholesale Water Billings shows the FY 2023 water billed usage and revenues. As of October 31, 2022, the billed usage was at 101.17% of the original plan and billed revenue at 100.89% of the original plan. Billings and usage from the City of Flint are included as they were assumed in the FY 2023 Budget.

Wholesale Water Collections: The collections represent payments made by wholesale customers. These receipts are deposited directly into a lockbox with a trustee for administration of the flow of funds defined by GLWA’s Master Bond Ordinance.

Table 2 - Wholesale Water Collections shows collections by month for the past 12 months compared to collections for the prior year as well as the calculated difference between the periods. Current year collections are trending above with the prior year for the twelve-month period ending October 31, 2022.

Table 1 – FY 2023 Wholesale Water Billings Report

WHOLESALE WATER CHARGES								
Month (1)	FY 2023 Charges (3)		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	1,565,900	33,114,500	1,664,936	34,349,872	99,036	1,235,372	1,342,686	29,642,785
August	1,513,500	32,632,400	1,418,347	31,555,444	(95,153)	(1,076,956)	1,417,142	30,604,230
September	1,271,200	29,674,600	1,308,481	30,306,713	37,281	632,113	1,298,750	29,065,588
October	1,033,200	27,094,600	1,055,245	27,391,089	22,045	296,489	1,006,217	26,123,483
November	901,100	25,815,700					905,525	25,117,181
December	966,900	26,357,900					958,879	25,542,432
January	954,300	26,296,700					979,803	25,791,405
February	877,900	25,580,400					875,553	24,800,493
March	965,300	26,359,200					963,825	25,592,186
April	907,300	25,855,100					912,124	25,139,078
May	1,086,000	27,886,200					1,094,002	27,116,529
June	1,470,200	32,090,900					1,385,287	30,301,351
Total	13,512,800	338,758,200	5,447,009	123,603,118	63,209	1,087,018	13,139,793	324,836,740
Subtotals ytd	5,383,800	122,516,100	5,447,009	123,603,118	63,209	1,087,018		
Achievement of Original Plan			101.17%	100.89%				
Billing Adjustments (4)			(4,011)	(191,135)				
			5,442,998	123,411,983				
			101.10%	100.73%				

(1) Figures are stated as "Service Months"; that is, July figures represent bills issued in August, etc.

(2) Water Revenues differ from Table 1A because amounts are reduced by the monthly payment to the City of Flint for a license to raw water rights under the Flint Raw Water Contract in Table 1A

(3) Charges are based on the approved FY 2023 water supply system charge schedule.

(4) Reflects prior period adjustments made in the current year for DTE Greenwood and Madison Heights.

Table 2 - Wholesale Water Collections

Water				
Month	Current Year	Prior Year	Variance	Ratio
November	25,265,770	32,218,822	(6,953,052)	-21.58%
December	25,302,369	29,609,061	(4,306,692)	-14.55%
January	31,280,599	20,716,948	10,563,651	50.99%
February	24,919,847	25,694,176	(774,329)	-3.01%
March	22,123,572	20,854,506	1,269,066	6.09%
April	21,726,941	23,545,123	(1,818,182)	-7.72%
May	27,717,969	24,878,479	2,839,490	11.41%
June	26,379,503	25,403,968	975,535	3.84%
July	14,435,092	23,709,847	(9,274,755)	-39.12%
August	41,154,992	31,668,492	9,486,500	29.96%
September	21,887,632	23,849,618	(1,961,986)	-8.23%
October	38,029,648	29,212,277	8,817,371	30.18%
Rolling 12-Month Total	320,223,934	311,361,317		
Rolling, 12-Month Average	26,685,328	25,946,776		

Wholesale Sewer Billings and Collections

Wholesale Sewer Contracts: GLWA provides wholesale sewer service to 18 member-partners via multiple service arrangements.

Service Arrangement Type

Model Contract	11
Emergency	0
Older Contracts	7
Total	<u>18</u>

Note: Services are provided to the Detroit Water & Sewerage Department via a Water and Sewer Services Agreement (WSSA). See the “Retail Revenues, Receivables, and Collections Report” section of the monthly report.

Wholesale Sewer Billing Basis: Beginning in FY 2015, the “sewer rate simplification” initiative was applied which provides for a stable revenue stream and predictability for our member partners. Wholesale sewer customers are billed a fixed monthly fee based upon the annual revenue requirement.

Table 3 - Wholesale Sewer Billings shows the FY 2023 sewer billed revenue. As of October 31, 2022 the billed revenue is at 100.00% of the original plan.

Wholesale Sewer Collections: The collections represent payments made by wholesale customers. These receipts are deposited directly into a lockbox with a trustee for administration of the flow of funds defined by GLWA’s Master Bond Ordinance.

Table 4 - Wholesale Sewer Collections shows collections by month for the past 12 months compared to collections for the prior year as well as the calculated difference between the periods.

The shift in wholesale sewer collection patterns is largely attributable to the timing of payments received. There are several large accounts whose payments swing between the end of the current month and the beginning of the next month. Current year collections are trending in line with the twelve-month period ending October 31, 2022.

Table 3 – FY 2023 Wholesale Sewer Billings Report

WHOLESALE SEWER CHARGES								
Month (1)	FY 2023 Charges		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume (2)	Revenue	Volume (2)	Revenue	Volume (2)	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
August	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
September	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
October	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
November	N/A	22,888,100	N/A		N/A		N/A	22,615,000
December	N/A	22,888,100	N/A		N/A		N/A	22,615,000
January	N/A	22,888,100	N/A		N/A		N/A	22,615,000
February	N/A	22,888,100	N/A		N/A		N/A	22,615,000
March	N/A	22,888,100	N/A		N/A		N/A	22,615,000
April	N/A	22,888,100	N/A		N/A		N/A	22,615,000
May	N/A	22,888,100	N/A		N/A		N/A	22,615,000
June	N/A	22,888,100	N/A		N/A		N/A	22,615,000
Total		274,657,200		91,552,400		-		271,380,000
Subtotals ytd		91,552,400		91,552,400		-		
Achievement of Budget				100.00%				

(1) Figures are stated as "Service Months"; that is, July figures represent bills issued in August, etc.

(2) Not tracked as part of the wholesale sewer charges.

Table 4 - Wholesale Sewer Collections

Sewer				
Month	Current Year	Prior Year	Variance	Ratio
November	16,534,758	18,966,208	(2,431,450)	-12.82%
December	21,765,958	25,232,649	(3,466,691)	-13.74%
January	26,436,258	25,968,849	467,409	1.80%
February	23,937,258	16,872,900	7,064,358	41.87%
March	24,713,158	22,368,124	2,345,034	10.48%
April	19,937,558	28,128,933	(8,191,375)	-29.12%
May	10,226,700	15,972,800	(5,746,100)	-35.97%
June	29,659,245	28,523,650	1,135,595	3.98%
July	28,223,515	21,842,125	6,381,390	29.22%
August	21,036,661	22,191,725	(1,155,064)	-5.20%
September	22,244,437	26,706,558	(4,462,121)	-16.71%
October	24,707,249	22,176,058	2,531,191	11.41%
Rolling 12-Month Total	269,422,755	274,950,579		
Rolling, 12-Month Average	22,451,896	22,912,548		

City of Highland Park Billings and Collections

The City of Highland Park is provided water service pursuant to an emergency service basis. Sewer service is provided pursuant to a 1982 amended contract which indicates that the parties are guided in their legal relationship by a Michigan Supreme Court decision from 1949.

As of October 31, 2022, Highland Park had a delinquent balance of \$55.1 million, including \$41.9 million for wastewater treatment services, \$1.8 million for industrial waste control services, and \$11.4 million for water supply services.

Table 5 - City of Highland Park Billings and Collections provides a life-to-date balance summary of the billing and collection history for Highland Park with detail provided for fiscal year 2023 through October 31, 2022. Please note the numbers below reflect the month the billing was sent and not the month the service was provided. A life-to-date summary is provided as an appendix to this monthly financial report.

Table 5 - City of Highland Park Billings and Collections

City of Highland Park Billings and Payments				
	Water	Sewer	IWC	Total
November 30, 2021 Balance	10,254,697	39,295,075	1,789,986	51,339,758
December 2021 Billing	100,908	446,400	4,075	551,383
December 2021 Payments	-	-	-	-
December 31, 2021 Balance	10,355,605	39,741,475	1,794,061	51,891,141
January 2022 Billing	96,633	446,400	4,002	547,035
January 2022 Payments	-	-	-	-
January 31, 2022 Balance	10,452,238	40,187,875	1,798,063	52,438,176
February 2022 Billing	97,203	446,400	4,002	547,605
February 2022 Payments	-	-	-	-
February 28, 2022 Balance	10,549,441	40,634,275	1,802,065	52,985,781
March 2022 Billing	96,540	446,400	4,000	546,940
March 2022 Payments	-	-	-	-
March 31, 2022 Balance	10,645,981	41,080,675	1,806,065	53,532,721
April 2022 Billing	98,395	446,400	4,009	548,804
April 2022 Payments	-	-	-	-
April 30, 2022 Balance	10,744,376	41,527,075	1,810,074	54,081,525
May 2022 Billing	96,254	446,400	4,009	546,663
May 2022 Payments	-	-	-	-
May 31, 2022 Balance	10,840,630	41,973,475	1,814,083	54,628,188
June 2022 Billing	100,820	446,400	4,002	551,222
June 2022 Payments	-	(1,788,828)	-	(1,788,828)
June 30, 2022 Balance	10,941,450	40,631,047	1,818,085	53,390,582
July 2022 Billing	104,262	446,400	4,002	554,664
July 2022 Payments	-	(126,056)	-	(126,056)
July 31, 2022 Balance	11,045,712	40,951,391	1,822,087	53,819,190
August 2022 Billing	112,017	451,700	4,082	567,799
August 2022 Payments	-	(117,079)	-	(117,079)
August 31, 2022 Balance	11,157,729	41,286,012	1,826,169	54,269,910
September 2022 Billing	113,427	451,700	4,025	569,152
September 2022 Payments	-	(144,837)	-	(144,837)
September 30, 2022 Balance	11,271,156	41,592,875	1,830,194	54,694,225
October 2022 Billing	106,220	451,700	4,026	561,946
October 2022 Payments	-	(133,899)	-	(133,899)
October 31, 2022 Balance	11,377,376	41,910,676	1,834,220	55,122,272

Wholesale Water & Sewer Accounts Receivable Aging Report

The detailed accounts receivable aging is in the Appendix to this monthly report. This report reflects the wholesale receivables only and does not include DWSD.

Table 6 - Wholesale Accounts Receivable Aging Report Summary is a summary of the total, current and non-current receivables by category as of October 31, 2022.

Table 7 - Wholesale Accounts Receivable Aging Report, Net of Highland Park is the same summary *without* the past due balances for the City of Highland Park.

Table 8 - Wholesale Accounts Receivable Aging Report, Net of Highland Park and Dearborn is the same summary *without* the past due balances for the City of Highland Park and Dearborn. Four past due Water accounts totaling just over \$1 million were subsequently paid in full. The remaining \$55 thousand of past due water accounts relates to amounts withheld due to Member Partner disputes regarding Highland Park bad debt charges.

The IWC past due balance of \$21 was paid in full in October. Two pollutant surcharge past due accounts totaling \$3,647 make up the majority of the pollutant surcharge past due balance. The past due amounts on these accounts were subsequently paid in full. The remaining pollutant surcharge past due balance consists of smaller account holders that GLWA staff continue to communicate with.

Table 6 - Wholesale Accounts Receivable Aging Report Summary

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 63,216,447.28	\$ 45,677,710.37	\$ 2,145,166.87	\$ 1,070,014.10	\$ 14,323,555.94
Sewer	\$ 56,975,277.87	\$ 15,516,302.14	\$ 451,700.00	\$ 451,700.00	\$ 40,555,575.73
IWC	\$ 2,356,940.85	\$ 530,750.80	\$ 4,102.68	\$ 4,001.97	\$ 1,818,085.40
Pollutant Surcharge	\$ 790,522.70	\$ 781,636.56	\$ 4,270.22	\$ 1,830.95	\$ 2,784.97
Total	\$ 123,339,188.70	\$ 62,506,399.87	\$ 2,605,239.77	\$ 1,527,547.02	\$ 56,700,002.04
	100.00%	50.68%	2.11%	1.24%	45.97%

Table 7 - Wholesale Accounts Receivable Aging Report, Net of Highland Park

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 51,839,071.04	\$ 45,458,063.25	\$ 2,033,149.05	\$ 965,752.08	\$ 3,382,106.66
Sewer	\$ 15,064,602.14	\$ 15,064,602.14	\$ -	\$ -	\$ -
IWC	\$ 522,720.86	\$ 522,699.38	\$ 21.48	\$ -	\$ -
Pollutant Surcharge	\$ 790,522.70	\$ 781,636.56	\$ 4,270.22	\$ 1,830.95	\$ 2,784.97
Total	\$ 68,216,916.74	\$ 61,827,001.33	\$ 2,037,440.75	\$ 967,583.03	\$ 3,384,891.63
	100.00%	90.63%	2.99%	1.42%	4.96%

Table 8 - Wholesale Accounts Receivable Aging Report, Net of Highland Park and Dearborn

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 44,608,256.89	\$ 43,543,744.14	\$ 1,061,137.75	\$ 3,375.00	\$ -
Sewer	\$ 15,064,602.14	\$ 15,064,602.14	\$ -	\$ -	\$ -
IWC	\$ 522,720.86	\$ 522,699.38	\$ 21.48	\$ -	\$ -
Pollutant Surcharge	\$ 790,522.70	\$ 781,636.56	\$ 4,270.22	\$ 1,830.95	\$ 2,784.97
Total	\$ 60,986,102.59	\$ 59,912,682.22	\$ 1,065,429.45	\$ 5,205.95	\$ 2,784.97
	100.00%	98.24%	1.75%	0.01%	0.00%

Note: percentages vary from 100% due to rounding.



The Monthly Trust Receipts & Disbursements Report includes the following.

1. GLWA Trust Receipts & Disbursements – Net Cash Flows and Receipts
2. DWSD Trust Receipts & Disbursements – Net Cash Flows, Receipts & Loan Receivable
3. Combined System Trust Receipts & Disbursements – Net Cash Flows

GLWA Trust Receipts & Disbursements

Net Cash Flows and Receipts Basis: The trusts established pursuant to the Master Bond Ordinance (MBO) outline a flow of funds that governs the priority of the application of cash receipts from both the regional wholesale (i.e., Great Lakes Water Authority or GLWA) and local retail (i.e., Detroit Water & Sewerage Department or DWSD) activities which are further separated by the water system and the sewage disposal system.

This report provides an ongoing status of the net cash flow of both organizations (GLWA and DWSD) to fund their allocated share of Master Bond Ordinance requirements in accordance with the leases for the regional systems.

Table 1 – GLWA Net Cash Flows from Trust Receipts & Disbursements provides a summary of cash receipt collections and required MBO transfers by fiscal year. Fiscal year 2023 reflects four months of activity to date.

Water fund receipts exceeded required disbursements by 10% through October 31, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 11% since July 1, 2018.

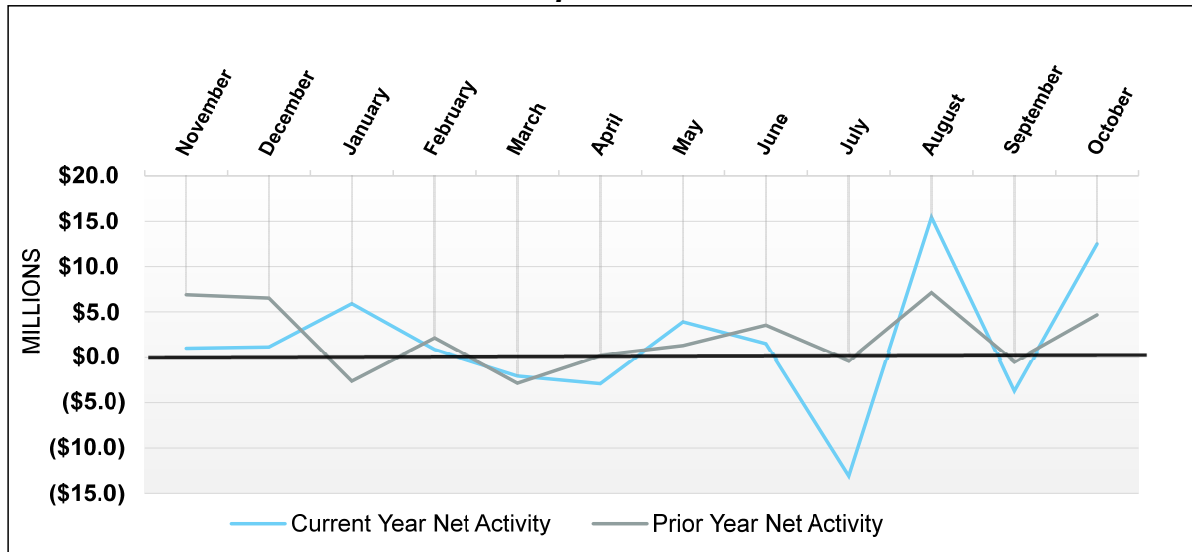
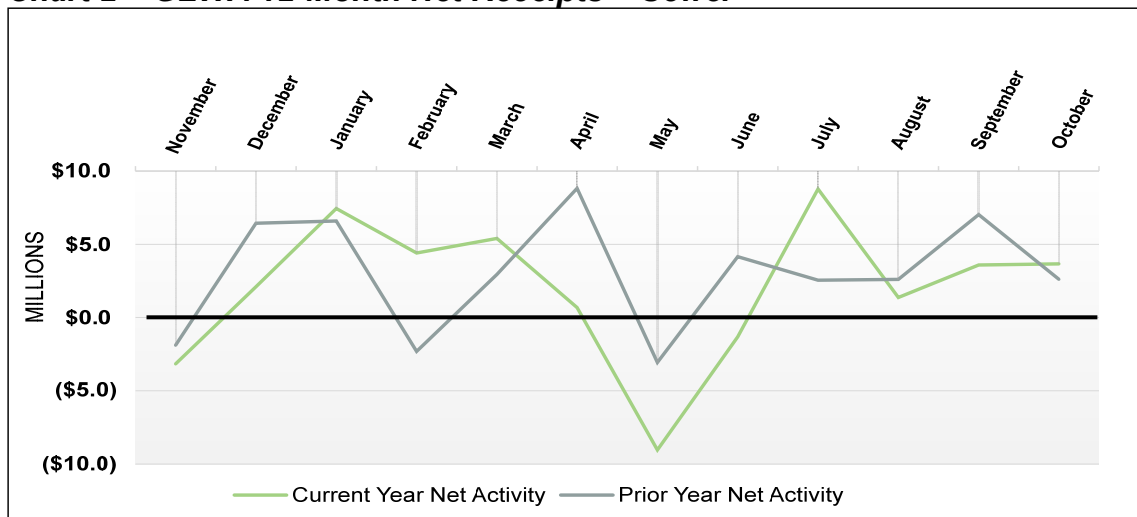
Sewer fund receipts exceeded required disbursements by 12% through October 31, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 7% since July 1, 2018.

Chart 1 – GLWA 12-Month Net Receipts – Water outlines monthly cash receipt trends across two points of reference for the regional water system—current year and prior year. The black line at the zero highlights the minimum goal for net receipts.

Chart 2 – GLWA 12-Month Net Receipts – Sewer outlines monthly cash receipt trends across two points of reference for the regional sewer system—current year and prior year. The black line at the zero highlights the minimum goal for net receipts.

Table 1 – GLWA Net Cash Flows from Trust Receipts & Disbursements

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru Oct 31
Water					
1 Receipts	\$ 336,594,234	\$ 332,606,196	\$ 336,642,021	\$ 338,117,694	\$ 124,139,990
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	336,594,234	332,606,196	336,642,021	338,117,694	124,139,990
4 Disbursements	(289,230,481)	(296,190,425)	(308,713,407)	(316,495,360)	(112,997,805)
5 Receipts Net of Required Transfers	47,363,753	36,415,771	27,928,614	21,622,334	11,142,185
6 I&E Transfer	(47,695,000)	(25,719,751)	(31,991,687)	(26,622,862)	(8,702,217)
7 Net Receipts	\$ (331,247)	\$ 10,696,020	\$ (4,063,073)	\$ (5,000,528)	\$ 2,439,968
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	116%	112%	109%	107%	110%
Sewer					
9 Receipts	\$ 467,743,744	\$ 490,461,356	\$ 472,871,853	\$ 471,979,297	\$ 166,991,917
10 MOU Adjustments	-	-	-	-	-
11 Adjusted Receipts	467,743,744	490,461,356	472,871,853	471,979,297	166,991,917
12 Disbursements	(453,406,636)	(445,604,952)	(436,600,883)	(450,701,751)	(149,589,210)
13 Receipts Net of Required Transfers	14,337,108	44,856,404	36,270,970	21,277,546	17,402,707
14 I&E Transfer	(22,547,700)	(19,096,200)	(40,504,727)	(37,651,788)	(5,208,533)
15 DWSD Shortfall Advance	0	-	-	-	-
16 Shortfall Repayment (principal)	9,367,355	17,542,669	18,206,431	8,296,578	-
17 Net Receipts	\$ 1,156,763	\$ 43,302,873	\$ 13,972,674	\$ (8,077,664)	\$ 12,194,174
18 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	103%	110%	108%	105%	112%
Combined					
19 Receipts	\$ 804,337,978	\$ 823,067,552	\$ 809,513,874	\$ 810,096,991	\$ 291,131,907
20 MOU Adjustments	-	-	-	-	-
21 Adjusted Receipts	804,337,978	823,067,552	809,513,874	810,096,991	291,131,907
22 Disbursements	(742,637,117)	(741,795,377)	(745,314,290)	(767,197,111)	(262,587,015)
23 Receipts Net of Required Transfers	61,700,861	81,272,175	64,199,584	42,899,880	28,544,892
24 I&E Transfer	(70,242,700)	(44,815,951)	(72,496,414)	(64,274,650)	(13,910,750)
25 Shortfall Advance	0	-	-	-	-
26 Shortfall Repayment	9,367,355	17,542,669	18,206,431	8,296,578	0
27 Net Receipts	\$ 825,516	\$ 53,998,893	\$ 9,909,601	\$ (13,078,192)	\$ 14,634,142
28 <i>Ratio of Receipts to Required Disbursements (Line 21/Line 22)</i>	108%	111%	109%	106%	111%

Chart 1 – GLWA 12-Month Net Receipts – Water

Chart 2 – GLWA 12-Month Net Receipts – Sewer


DWSD Trust Receipts & Disbursements

Net Cash Flows and Receipts Basis: The trusts established pursuant to the Master Bond Ordinance (MBO) outline a flow of funds that governs the priority of the application of cash receipts from both the regional wholesale (i.e. Great Lakes Water Authority or GLWA) and local retail (i.e. Detroit Water & Sewerage Department or DWSD) activities which are further separated by the water system and the sewage disposal system.

This report provides an ongoing status of the net cash flow of both organizations (GLWA and DWSD) to fund their allocated share of Master Bond Ordinance requirements in accordance with the leases for the regional systems.

Table 2 – DWSD Net Cash Flows from Trust Receipts & Disbursements

provides a summary of cash receipt collections and required MBO transfers by fiscal year. Fiscal year 2023 reflects four months of activity to date.

Water fund receipts exceeded required disbursements by 6% through October 31, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 3% since July 1, 2018.

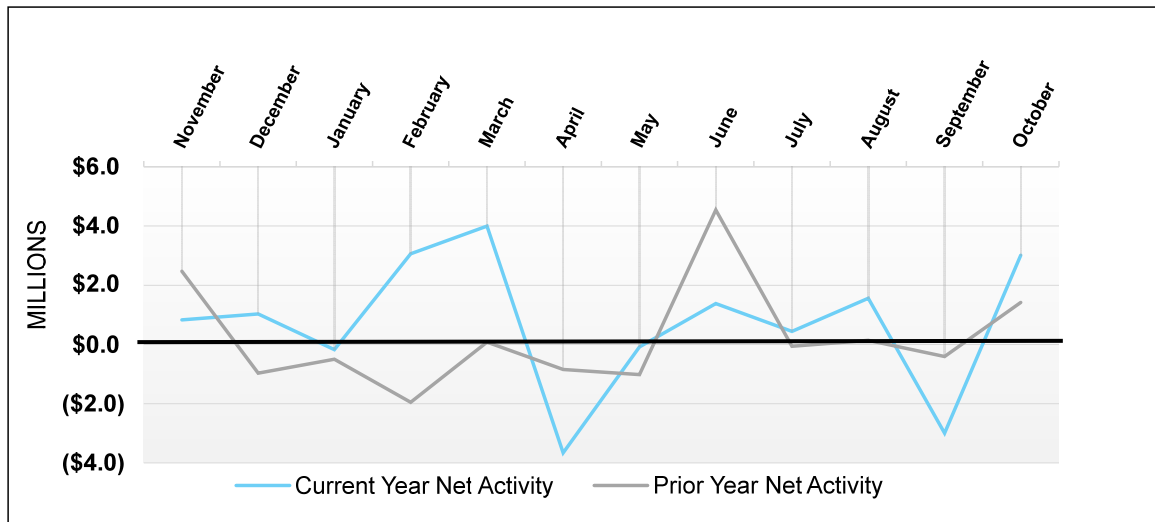
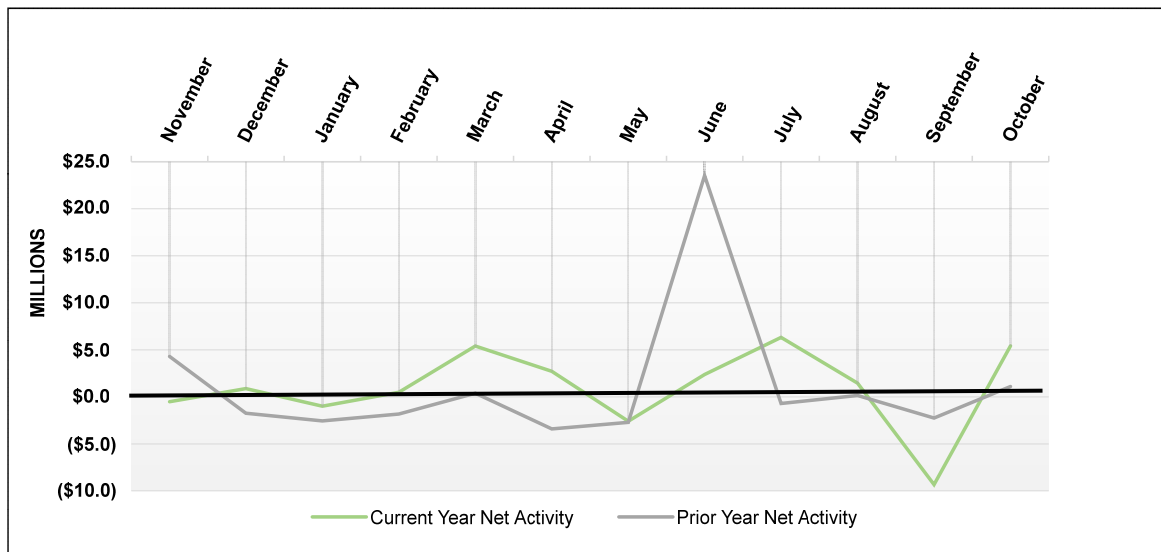
Sewer fund receipts exceeded required disbursements by 4% through October 31, 2022 compared to the four-year historical average of required receipts exceeding disbursements by 1% since July 1, 2018.

Table 2 – DWSD Net Cash Flows from Trust Receipts & Disbursements

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru Oct 31
Water					
1 Receipts	\$ 99,868,219	\$ 96,885,723	\$ 102,067,423	\$ 101,964,963	\$ 36,338,650
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	99,868,219	96,885,723	102,067,423	101,964,963	36,338,650
4 Disbursements	(97,694,600)	(97,823,097)	(100,707,200)	(94,495,601)	(34,320,056)
5 Receipts Net of Required Transfers	2,173,619	(937,374)	1,360,223	7,469,362	2,018,594
6 I&E Transfer	(8,407,080)	-	-	-	-
7 Net Receipts	\$ (6,233,461)	\$ (937,374)	\$ 1,360,223	\$ 7,469,362	\$ 2,018,594
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	102%	99%	101%	108%	106%
Sewer					
9 Receipts	\$ 265,339,797	\$ 264,689,559	\$ 308,210,767	\$ 291,280,896	\$ 100,480,811
10 MOU Adjustments	6,527,200	-	-	-	-
11 Adjusted Receipts	271,866,997	264,689,559	308,210,767	291,280,896	100,480,811
12 Disbursements	(271,018,306)	(275,507,374)	(295,100,771)	(285,256,000)	(96,614,412)
13 Receipts Net of Required Transfers	848,691	(10,817,815)	13,109,996	6,024,896	3,866,399
14 I&E Transfer	-	-	-	-	-
15 Shortfall Advance from GLWA	-	-	-	-	-
16 Net Receipts	\$ 848,691	\$ (10,817,815)	\$ 13,109,996	\$ 6,024,896	\$ 3,866,399
17 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	100%	96%	104%	102%	104%
Combined					
18 Receipts	\$ 365,208,016	\$ 361,575,282	\$ 410,278,190	\$ 393,245,859	\$ 136,819,461
19 MOU Adjustments	6,527,200	-	-	-	-
20 Adjusted Receipts	371,735,216	361,575,282	410,278,190	393,245,859	136,819,461
21 Disbursements	(368,712,906)	(373,330,471)	(395,807,971)	(379,751,601)	(130,934,468)
22 Receipts Net of Required Transfers	3,022,310	(11,755,189)	14,470,219	13,494,258	5,884,993
23 I&E Transfer	(8,407,080)	-	-	-	-
24 Shortfall Advance from GLWA	-	-	-	-	-
25 Net Receipts	\$ (5,384,770)	\$ (11,755,189)	\$ 14,470,219	\$ 13,494,258	\$ 5,884,993
26 <i>Ratio of Receipts to Required Disbursements (Line 20/Line 21)</i>	101%	97%	104%	104%	104%

Chart 3 – DWSD 12-Month Net Receipts – Water outlines monthly activity trends across two points of reference for the local water system—current year and prior year. The black line at the zero highlights the breakeven goal for net receipts.

Chart 4 – DWSD 12-Month Net Receipts – Sewer outlines monthly activity trends across two points of reference for the local sewer system—current year and prior year. The black line at the zero highlights the breakeven goal for net receipts.

Chart 3 – DWSD 12-Month Net Receipts – Water

Chart 4 – DWSD 12-Month Net Receipts – Sewer


Combined System Trust Receipts & Disbursements

Net Cash Flows and Receipts Basis: The trusts established pursuant to the Master Bond Ordinance (MBO) outline a flow of funds that governs the priority of the application of cash receipts from both the regional wholesale (i.e., Great Lakes Water Authority or GLWA) and local retail (i.e. Detroit Water & Sewerage Department or DWSD) activities which are further separated by the water system and the sewage disposal system.

Table 3 – Combined Net Cash Flows from Trust Receipts & Disbursements provides a summary of cash receipt collections and required MBO transfers by fiscal year. Fiscal year 2023 reflects four months of activity to date.

Water fund receipts exceeded required disbursements by 9% through October 31, 2022 consistent with the four-year historical average ratio of required receipts exceeding disbursements by 9% since July 1, 2018.

Sewer fund receipts exceeded required disbursements by 9% through October 31, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 4% since July 1, 2018.

Table 3 – Combined Net Cash Flows from Trust Receipts & Disbursements

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru Oct 31
Water					
1 Receipts	\$ 436,462,453	\$ 429,491,919	\$ 438,709,444	\$ 440,082,657	\$ 160,478,640
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	436,462,453	429,491,919	438,709,444	440,082,657	160,478,640
4 Disbursements	(386,925,081)	(394,013,522)	(409,420,607)	(410,990,961)	(147,317,861)
5 Receipts Net of Required Transfers	49,537,372	35,478,397	29,288,837	29,091,696	13,160,779
6 I&E Transfer	(56,102,080)	(25,719,751)	(31,991,687)	(26,622,862)	(8,702,217)
7 Net Receipts	\$ (6,564,708)	\$ 9,758,646	\$ (2,702,850)	\$ 2,468,834	\$ 4,458,562
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	113%	109%	107%	107%	109%
Sewer					
9 Receipts	\$ 733,083,541	\$ 755,150,915	\$ 781,082,620	\$ 763,260,193	\$ 267,472,728
10 MOU Adjustments	6,527,200	-	-	-	-
11 Adjusted Receipts	739,610,741	755,150,915	781,082,620	763,260,193	267,472,728
12 Disbursements	(724,424,942)	(721,112,326)	(731,701,654)	(735,957,751)	(246,203,622)
13 Receipts Net of Required Transfers	15,185,799	34,038,589	49,380,966	27,302,442	21,269,106
14 I&E Transfer	(22,547,700)	(19,096,200)	(40,504,727)	(37,651,788)	(5,208,533)
15 Shortfall Advance	-	-	-	-	-
16 Shortfall Repayment (principal)	9,367,355	17,542,669	18,206,431	8,296,578	-
17 Net Receipts	\$ (7,361,901)	\$ 32,485,058	\$ 27,082,670	\$ (2,052,768)	\$ 16,060,573
18 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	102%	105%	107%	104%	109%
Combined					
19 Receipts	\$ 1,169,545,994	\$ 1,184,642,834	\$ 1,219,792,064	\$ 1,203,342,850	\$ 427,951,368
20 MOU Adjustments	6,527,200	-	-	-	-
21 Adjusted Receipts	1,176,073,194	1,184,642,834	1,219,792,064	1,203,342,850	427,951,368
22 Disbursements	(1,111,350,023)	(1,115,125,848)	(1,141,122,261)	(1,146,948,712)	(393,521,483)
23 Receipts Net of Required Transfers	64,723,171	69,516,986	78,669,803	56,394,138	34,429,885
24 I&E Transfer	(78,649,780)	(44,815,951)	(72,496,414)	(64,274,650)	(13,910,750)
25 Shortfall Advance	-	-	-	-	-
26 Shortfall Repayment	9,367,355	17,542,669	18,206,431	8,296,578	-
27 Net Receipts	\$ (4,559,254)	\$ 42,243,704	\$ 24,379,820	\$ 416,066	\$ 20,519,135
28 <i>Ratio of Receipts to Required Disbursements (Line 21/Line 22)</i>	106%	106%	107%	105%	109%

APPENDIX

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$219,284.43	\$219,284.43	\$0.00	\$0.00	\$0.00
ALMONT VILLAGE	\$21,020.15	\$21,020.15	\$0.00	\$0.00	\$0.00
ASH TOWNSHIP	\$75,583.97	\$75,583.97	\$0.00	\$0.00	\$0.00
BELLEVILLE	\$91,071.16	\$61,450.25	\$29,620.91	\$0.00	\$0.00
BERLIN TOWNSHIP	\$141,601.43	\$141,601.43	\$0.00	\$0.00	\$0.00
BROWNSTOWN TOWNSHIP	\$741,712.67	\$741,712.67	\$0.00	\$0.00	\$0.00
BRUCE TOWNSHIP	\$31,694.77	\$31,694.77	\$0.00	\$0.00	\$0.00
BURTCHVILLE TOWNSHIP	\$36,575.31	\$36,575.31	\$0.00	\$0.00	\$0.00
CANTON TOWNSHIP	\$2,219,633.93	\$2,204,258.93	\$15,375.00	\$0.00	\$0.00
CENTER LINE	\$87,470.80	\$87,470.80	\$0.00	\$0.00	\$0.00
CHESTERFIELD TOWNSHIP	\$407,077.32	\$407,077.32	\$0.00	\$0.00	\$0.00
CLINTON TOWNSHIP	\$688,697.18	\$688,697.18	\$0.00	\$0.00	\$0.00
COMMERCE TOWNSHIP	\$774,243.59	\$774,243.59	\$0.00	\$0.00	\$0.00
DEARBORN	\$7,230,814.15	\$1,914,319.11	\$972,011.30	\$962,377.08	\$3,382,106.66
DEARBORN HEIGHTS	\$706,480.95	\$706,480.95	\$0.00	\$0.00	\$0.00
EASTPOINTE	\$435,018.26	\$286,192.64	\$148,825.62	\$0.00	\$0.00
ECORSE	\$114,927.62	\$114,927.62	\$0.00	\$0.00	\$0.00
FARMINGTON	\$97,849.48	\$97,849.48	\$0.00	\$0.00	\$0.00
FARMINGTON HILLS	\$1,838,572.27	\$1,838,572.27	\$0.00	\$0.00	\$0.00
FERNDAL	\$79,708.97	\$79,708.97	\$0.00	\$0.00	\$0.00
FLAT ROCK	\$117,873.92	\$117,873.92	\$0.00	\$0.00	\$0.00
FLINT	\$42,429.98	\$42,429.98	\$0.00	\$0.00	\$0.00
FRASER	\$111,632.13	\$111,632.13	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GARDEN CITY	\$149,031.99	\$149,031.99	\$0.00	\$0.00	\$0.00
GENESEE COUNTY DRAIN COMM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GIBRALTAR	\$31,533.02	\$31,533.02	\$0.00	\$0.00	\$0.00
GREATER LAPEER CUA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GREENWOOD TWP. (DTE)	\$407,871.43	\$407,871.43	\$0.00	\$0.00	\$0.00
GROSSE ILE TOWNSHIP	\$103,644.06	\$103,644.06	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$133,800.35	\$133,800.35	\$0.00	\$0.00	\$0.00
GROSSE POINTE SHORES	\$154,715.13	\$154,715.13	\$0.00	\$0.00	\$0.00
GROSSE POINTE WOODS	\$132,571.33	\$132,571.33	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$84,313.00	\$84,313.00	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$77,517.40	\$77,517.40	\$0.00	\$0.00	\$0.00
HARRISON TWP	\$322,291.62	\$322,291.62	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$135,354.21	\$135,354.21	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$11,377,376.24	\$219,647.12	\$112,017.82	\$104,262.02	\$10,941,449.28
HURON TOWNSHIP	\$300,451.21	\$297,703.29	\$2,747.92	\$0.00	\$0.00
IMLAY CITY	\$146,763.30	\$146,763.30	\$0.00	\$0.00	\$0.00
IMLAY TOWNSHIP (CHAMPION BUS	\$838.44	\$838.44	\$0.00	\$0.00	\$0.00
INKSTER	\$113,919.32	\$113,919.32	\$0.00	\$0.00	\$0.00
KEEGO HARBOR	\$58,541.51	\$58,541.51	\$0.00	\$0.00	\$0.00
LAPEER	\$139,274.04	\$139,274.04	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$27,796.05	\$27,796.05	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LINCOLN PARK	\$677,060.46	\$445,497.18	\$228,188.28	\$3,375.00	\$0.00
LIVONIA	\$1,116,970.57	\$1,116,970.57	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$2,460,483.82	\$2,460,483.82	\$0.00	\$0.00	\$0.00
MADISON HEIGHTS	\$195,917.56	\$195,917.56	\$0.00	\$0.00	\$0.00
MAYFIELD TOWNSHIP (KAMAX)	\$8,930.63	\$7,970.25	\$960.38	\$0.00	\$0.00
MELVINDALE	\$60,636.26	\$60,636.26	\$0.00	\$0.00	\$0.00
NEW HAVEN	\$36,839.23	\$36,839.23	\$0.00	\$0.00	\$0.00
NOCWA	\$4,537,308.00	\$4,537,308.00	\$0.00	\$0.00	\$0.00
NORTHVILLE	\$75,808.95	\$75,808.95	\$0.00	\$0.00	\$0.00
NORTHVILLE TOWNSHIP	\$1,196,212.59	\$1,194,545.59	\$1,667.00	\$0.00	\$0.00
NOVI	\$984,986.18	\$984,986.18	\$0.00	\$0.00	\$0.00
OAK PARK	\$125,944.90	\$125,944.90	\$0.00	\$0.00	\$0.00
OAKLAND CO DR COM	\$14,430.47	\$14,430.47	\$0.00	\$0.00	\$0.00
PLYMOUTH	\$107,997.18	\$107,997.18	\$0.00	\$0.00	\$0.00
PLYMOUTH TOWNSHIP	\$464,807.68	\$464,807.68	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$287,503.28	\$287,503.28	\$0.00	\$0.00	\$0.00
RIVER ROUGE	\$126,169.75	\$126,169.75	\$0.00	\$0.00	\$0.00
RIVERVIEW	\$170,685.58	\$170,685.58	\$0.00	\$0.00	\$0.00
ROCKWOOD	\$25,281.53	\$25,281.53	\$0.00	\$0.00	\$0.00
ROMEO	\$49,610.89	\$49,610.89	\$0.00	\$0.00	\$0.00
ROMULUS	\$392,577.48	\$392,577.48	\$0.00	\$0.00	\$0.00
ROSEVILLE	\$227,327.92	\$227,327.92	\$0.00	\$0.00	\$0.00
ROYAL OAK TOWNSHIP	\$36,961.60	\$36,961.60	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SHELBY TOWNSHIP	\$1,492,470.21	\$1,492,470.21	\$0.00	\$0.00	\$0.00
SOCWA	\$4,797,372.96	\$4,797,372.96	\$0.00	\$0.00	\$0.00
SOUTH ROCKWOOD	\$10,449.66	\$10,449.66	\$0.00	\$0.00	\$0.00
SOUTHGATE	\$209,359.60	\$209,359.60	\$0.00	\$0.00	\$0.00
ST. CLAIR SHORES	\$294,618.69	\$294,618.69	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$3,018,070.96	\$3,018,070.96	\$0.00	\$0.00	\$0.00
SUMPTER TOWNSHIP	\$67,401.82	\$67,401.82	\$0.00	\$0.00	\$0.00
SYLVAN LAKE	\$22,995.85	\$22,995.85	\$0.00	\$0.00	\$0.00
TAYLOR	\$453,914.80	\$453,914.80	\$0.00	\$0.00	\$0.00
TRENTON	\$353,392.19	\$353,392.19	\$0.00	\$0.00	\$0.00
TROY (SEOC)	\$ (232,427.78)	\$ (232,427.78)	\$0.00	\$0.00	\$0.00
UTICA	\$54,583.50	\$54,583.50	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$333,283.27	\$333,283.27	\$0.00	\$0.00	\$0.00
WALLED LAKE	\$153,411.28	\$153,411.28	\$0.00	\$0.00	\$0.00
WARREN	\$962,557.86	\$962,557.86	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$491,366.18	\$491,366.18	\$0.00	\$0.00	\$0.00
WAYNE	\$595,403.82	\$591,703.82	\$3,700.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (C-O)	\$2,228,462.50	\$2,228,462.50	\$0.00	\$0.00	\$0.00
WESTLAND	\$1,839,596.32	\$1,209,543.68	\$630,052.64	\$0.00	\$0.00
WIXOM	\$263,548.91	\$263,548.91	\$0.00	\$0.00	\$0.00
WOODHAVEN	\$157,364.58	\$157,364.58	\$0.00	\$0.00	\$0.00
YCUA	\$2,060,219.50	\$2,060,219.50	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL WATER ACCOUNTS	\$63,216,447.28	\$45,677,710.37	\$2,145,166.87	\$1,070,014.10	\$14,323,555.94

GLWA Aged Accounts Receivable- SEWER ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$70,700.00	\$70,700.00	\$0.00	\$0.00	\$0.00
CENTER LINE	\$86,899.50	\$86,899.50	\$0.00	\$0.00	\$0.00
DEARBORN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EVERGREEN-FARMINGTON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FARMINGTON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$158,700.00	\$158,700.00	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$18,200.00	\$18,200.00	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$41,910,675.73	\$451,700.00	\$451,700.00	\$451,700.00	\$40,555,575.73
MELVINDALE	\$131,200.00	\$131,200.00	\$0.00	\$0.00	\$0.00
OAKLAND COUNTY GWK DD	\$3,864,800.00	\$3,864,800.00	\$0.00	\$0.00	\$0.00
OMID	\$6,046,202.64	\$6,046,202.64	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$22,600.00	\$22,600.00	\$0.00	\$0.00	\$0.00
ROUGE VALLEY	\$4,660,900.00	\$4,660,900.00	\$0.00	\$0.00	\$0.00
SOUTH MACOMB SANITATION DIST	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WAYNE COUNTY-AREA #3	\$4,400.00	\$4,400.00	\$0.00	\$0.00	\$0.00
TOTAL SEWER ACCOUNTS	\$56,975,277.87	\$15,516,302.14	\$451,700.00	\$451,700.00	\$40,555,575.73

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$1,623.53	\$1,623.53	\$0.00	\$0.00	\$0.00
AUBURN HILLS (C-O)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AUBURN HILLS (C-O) ADMIN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AUBURN HILLS (E-F)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BERKLEY	\$3,182.62	\$3,182.62	\$0.00	\$0.00	\$0.00
BEVERLY HILLS	\$2,011.96	\$2,011.96	\$0.00	\$0.00	\$0.00
BINGHAM FARMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BIRMINGHAM (E-F)	\$2,446.93	\$2,446.93	\$0.00	\$0.00	\$0.00
BIRMINGHAM (SEOC)	\$5,728.00	\$5,728.00	\$0.00	\$0.00	\$0.00
BLOOMFIELD HILLS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BLOOMFIELD TOWNSHIP	\$7,868.84	\$7,868.84	\$0.00	\$0.00	\$0.00
CANTON TOWNSHIP	\$85.92	\$85.92	\$0.00	\$0.00	\$0.00
CENTER LINE	\$7,417.76	\$7,417.76	\$0.00	\$0.00	\$0.00
CHARTER TOWNSHIP OF INDEPENI	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CHESTERFIELD TOWNSHIP	\$12,938.12	\$12,938.12	\$0.00	\$0.00	\$0.00
CITY OF FARMINGTON (E-F)	\$202.27	\$202.27	\$0.00	\$0.00	\$0.00
CITY OF FERNDAL	\$8,967.90	\$8,967.90	\$0.00	\$0.00	\$0.00
CITY OF ROCHESTER	\$3,750.05	\$3,750.05	\$0.00	\$0.00	\$0.00
CLARKSTON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CLARKSTON (C-O) ADMIN	\$69.78	\$69.78	\$0.00	\$0.00	\$0.00
CLAWSON	\$3,122.28	\$3,122.28	\$0.00	\$0.00	\$0.00
CLINTON TOWNSHIP	\$27,102.39	\$27,102.39	\$0.00	\$0.00	\$0.00
DEARBORN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
DEARBORN HEIGHTS	\$9,689.27	\$9,689.27	\$0.00	\$0.00	\$0.00
DETROIT METRO WC AIRPORT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EASTPOINTE	\$6,499.49	\$6,499.49	\$0.00	\$0.00	\$0.00
FARMINGTON	\$4,047.19	\$4,047.19	\$0.00	\$0.00	\$0.00
FARMINGTON HILLS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FRASER	\$4,994.10	\$4,994.10	\$0.00	\$0.00	\$0.00
GARDEN CITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$2,103.25	\$2,103.25	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$1,190.35	\$1,190.35	\$0.00	\$0.00	\$0.00
GROSSE POINTE SHORES	\$347.52	\$347.52	\$0.00	\$0.00	\$0.00
GROSSE POINTE WOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$1,918.88	\$1,918.88	\$0.00	\$0.00	\$0.00
HARRISON TWP	\$3,146.82	\$3,146.82	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$1,834,219.99	\$8,051.42	\$4,081.20	\$4,001.97	\$1,818,085.40
HUNTINGTON WOODS	\$288.19	\$288.19	\$0.00	\$0.00	\$0.00
INDEPENDENCE (C-O) ADMIN	\$1,296.21	\$1,296.21	\$0.00	\$0.00	\$0.00
INKSTER	\$5,599.12	\$5,599.12	\$0.00	\$0.00	\$0.00
KEEGO HARBOR	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LAKE ORION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LATHRUP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$327.57	\$327.57	\$0.00	\$0.00	\$0.00
LIVONIA	\$41,166.42	\$41,166.42	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$415.28	\$415.28	\$0.00	\$0.00	\$0.00
MADISON HEIGHTS	\$19,172.69	\$19,172.69	\$0.00	\$0.00	\$0.00
MELVINDALE	\$3,540.62	\$3,540.62	\$0.00	\$0.00	\$0.00
NEW HAVEN	\$619.34	\$619.34	\$0.00	\$0.00	\$0.00
NORTHVILLE	\$2,314.47	\$2,314.47	\$0.00	\$0.00	\$0.00
NORTHVILLE TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NOVI	\$17,876.73	\$17,876.73	\$0.00	\$0.00	\$0.00
OAK PARK	\$14,526.63	\$14,526.63	\$0.00	\$0.00	\$0.00
OAKLAND TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ORCHARD LAKE VILLAGE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ORION TOWNSHIP (C-O)	\$4,457.10	\$4,457.10	\$0.00	\$0.00	\$0.00
ORION TOWNSHIP (C-O) ADMIN	\$499.80	\$499.80	\$0.00	\$0.00	\$0.00
OXFORD TOWNSHIP	\$1,079.37	\$1,079.37	\$0.00	\$0.00	\$0.00
OXFORD VILLAGE	\$1,267.32	\$1,267.32	\$0.00	\$0.00	\$0.00
PLEASANT RIDGE	\$551.32	\$551.32	\$0.00	\$0.00	\$0.00
PLYMOUTH	\$3,927.26	\$3,927.26	\$0.00	\$0.00	\$0.00
PLYMOUTH TOWNSHIP	\$137.83	\$137.83	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$12,639.19	\$12,639.19	\$0.00	\$0.00	\$0.00
ROCHESTER HILLS	\$18,952.52	\$18,952.52	\$0.00	\$0.00	\$0.00
ROMULUS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ROSEVILLE	\$14,801.51	\$14,801.51	\$0.00	\$0.00	\$0.00
ROYAL OAK	\$13,910.09	\$13,910.09	\$0.00	\$0.00	\$0.00
ROYAL OAK TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SHELBY TOWNSHIP	\$105.61	\$105.61	\$0.00	\$0.00	\$0.00
SOUTHFIELD (E-F)	\$28,897.76	\$28,897.76	\$0.00	\$0.00	\$0.00
SOUTHFIELD (SEOC)	\$3,361.62	\$3,361.62	\$0.00	\$0.00	\$0.00
ST. CLAIR SHORES	\$12,214.96	\$12,214.96	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$64,545.61	\$64,545.61	\$0.00	\$0.00	\$0.00
TROY (E-F)	\$386.64	\$386.64	\$0.00	\$0.00	\$0.00
TROY (SEOC)	\$38,203.97	\$38,203.97	\$0.00	\$0.00	\$0.00
UTICA	\$3,069.85	\$3,069.85	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$2,266.14	\$2,244.66	\$21.48	\$0.00	\$0.00
VILLAGE OF FRANKLIN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$1,679.02	\$1,679.02	\$0.00	\$0.00	\$0.00
WATERFORD TOWNSHIP DPW	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WATERFORD TOWNSHIP DPW (ADMI	\$3,192.21	\$3,192.21	\$0.00	\$0.00	\$0.00
WAYNE	\$5,053.17	\$5,053.17	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (C-O)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (E-F)	\$12,929.63	\$12,929.63	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP. (C-O) A	\$492.25	\$492.25	\$0.00	\$0.00	\$0.00
WESTLAND	\$46,500.62	\$46,500.62	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL IWC ACCOUNTS	\$2,356,940.85	\$530,750.80	\$4,102.68	\$4,001.97	\$1,818,085.40

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
3M COMPANY (MINNESOTA MINING	\$2,371.24	\$2,371.24	\$0.00	\$0.00	\$0.00
A & R PACKING CO., LLC	\$1,628.92	\$1,628.92	\$0.00	\$0.00	\$0.00
AACTRON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ACADEMY PACKING CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ACME RUSTPROOF	\$62.89	\$62.89	\$0.00	\$0.00	\$0.00
ADORING PET FUNERAL HOME	\$69.34	\$69.34	\$0.00	\$0.00	\$0.00
ADVANCE ENGINEERING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AEVITAS SPECIALITY SERVICES	\$699.74	\$699.74	\$0.00	\$0.00	\$0.00
ALEXANDER & HORNUNG	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALEXANDER & HORNUNG	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALL CHEM CORP, LLC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALPHA STAMPING COMPANY	\$375.75	\$375.75	\$0.00	\$0.00	\$0.00
AMERICAN WASTE TECH INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AMERITI MFG. CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
APPLIED TECHNOLOGY INDUSTRIE	\$863.05	\$863.05	\$0.00	\$0.00	\$0.00
ATWATER IN THE PARK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AUTOMOTIVE FINISH	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AXLE BREWING COMPANY, LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B. NEKTAR MEADERY	\$0.65	\$0.65	\$0.00	\$0.00	\$0.00
BAFFIN BREWING COMPANY	\$112.52	\$112.52	\$0.00	\$0.00	\$0.00
BARON INDUSTRIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BARTZ BAKERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BASTONE BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
BATCH BREWING COMPANY	\$176.04	\$99.89	\$0.00	\$76.15	\$0.00
BAYS MICHIGAN CORPORATION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BEIRUT BAKERY, INC.	\$37.00	\$0.00	\$0.00	\$0.00	\$37.00
BETTER MADE SNACK FOOD	\$59,951.33	\$59,951.33	\$0.00	\$0.00	\$0.00
BLACK LOTUS BREWING CO.	\$61.25	\$0.00	\$0.00	\$0.00	\$61.25
BOZEK'S MARKET	\$ (42.01)	\$ (42.01)	\$0.00	\$0.00	\$0.00
BREW DETROIT	\$9,085.04	\$6,126.37	\$2,958.67	\$0.00	\$0.00
BROADWAY MKT CORNED BEEF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BROOKS BREWING, LLC.	\$23.31	\$23.31	\$0.00	\$0.00	\$0.00
BROWN IRON BREWHOUSE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CADILLAC STRAITS BREWING CO.	\$35.78	\$35.78	\$0.00	\$0.00	\$0.00
CANTON BREW WORKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CAPITAL REPRODUCTIONS	\$26.07	\$26.07	\$0.00	\$0.00	\$0.00
CF BURGER CREAMERY	\$28,098.49	\$28,098.49	\$0.00	\$0.00	\$0.00
CHILANGO'S BAKERY	\$40.13	\$20.70	\$9.20	\$10.23	\$0.00
CINTAS CORP. - MACOMB TWP.	\$18,588.23	\$18,588.23	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$10,483.60	\$10,483.60	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CITY LAUNDRY, INC.	\$7.89	\$7.89	\$0.00	\$0.00	\$0.00
CLASSIC CONTAINER CORP.	\$18.89	\$18.89	\$0.00	\$0.00	\$0.00
COCA-COLA REFRESHMENTS USA,	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COUNTRY FRESH DAIRY CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CROSS CHEMICAL COMPANY, INC.	\$525.94	\$525.94	\$0.00	\$0.00	\$0.00
DARLING INGREDIENTS, INC.	\$6,792.06	\$6,792.06	\$0.00	\$0.00	\$0.00
DAVE'S SAUSAGE FACTORY 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DEARBORN BREWING	\$32.43	\$17.87	\$0.00	\$14.56	\$0.00
DEARBORN SAUSAGE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DEARBORN SAUSAGE CO., INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT BEER CO.	\$56.07	\$56.07	\$0.00	\$0.00	\$0.00
DETROIT LINEN SERVICE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT METRO WC AIRPORT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT RIVERTOWN BREWERY CC	\$661.87	\$661.87	\$0.00	\$0.00	\$0.00
DETROIT SAUSAGES CO INC	\$17.90	\$17.90	\$0.00	\$0.00	\$0.00
DETRONIC INDUSTRIES, INC.	\$43.94	\$43.94	\$0.00	\$0.00	\$0.00
DIFCO LABORATORIES, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DIVERSIFIED CHEM TECH. INC.	\$105.36	\$105.36	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$3,077.29	\$3,077.29	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$1,371.86	\$1,371.86	\$0.00	\$0.00	\$0.00
DOWNEY BREWING COMPANY	\$32.07	\$32.07	\$0.00	\$0.00	\$0.00
E.W. GROBBEL'S SONS, INC.	\$3,331.65	\$3,331.65	\$0.00	\$0.00	\$0.00
EASTERN MARKET BREWING COMP	\$142.69	\$65.39	\$0.00	\$77.30	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ENVIROSOLIDS, L.L.C.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$77.42	\$77.42	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$4,939.08	\$4,939.08	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$0.13	\$0.13	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ETON ST BREWERY- GRIFFIN CLF	\$1,961.46	\$1,961.46	\$0.00	\$0.00	\$0.00
EXTRUDE HONE CORPORATION	\$404.28	\$200.56	\$97.29	\$65.04	\$41.39
EXTRUDEHODE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FARMINGTON BREWING COMPANY	\$8.87	\$8.87	\$0.00	\$0.00	\$0.00
FAYGO BEVERAGES, INC.	\$61,171.25	\$61,171.25	\$0.00	\$0.00	\$0.00
FITZGERALD FINISHING LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FIVES CINETIC CORP.	\$4,344.17	\$4,344.17	\$0.00	\$0.00	\$0.00
FORD NEW MODEL PROGRAM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FOUNDERS BREWING COMPANY	\$12.61	\$12.61	\$0.00	\$0.00	\$0.00
FRESH-PAK	\$769.30	\$523.34	\$245.96	\$0.00	\$0.00
FRESH-PAK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GENERAL LINEN SUPPLY CO.	\$2,595.57	\$2,595.57	\$0.00	\$0.00	\$0.00
GLOBAL TITANIUM, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$19.19	\$19.19	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$29.00	\$29.00	\$0.00	\$0.00	\$0.00
GREAT BARABOO BREWING CO.	\$167.00	\$88.58	\$0.00	\$78.42	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
HACIENDA MEXICAN FOODS	\$2,149.68	\$1,460.11	\$688.57	\$1.00	\$0.00
HENKEL CORPORATION	\$117.18	\$117.18	\$0.00	\$0.00	\$0.00
HOME STYLE FOOD INC.	\$ (1,481.37)	\$ (1,481.37)	\$0.00	\$0.00	\$0.00
HomeGROWN BREWING COMPANY	\$98.97	\$52.95	\$0.00	\$46.02	\$0.00
HOODS CLEANERS	\$211.33	\$0.00	\$0.00	\$0.00	\$211.33
HOUGHTON INTERNATIONAL INC.	\$159.11	\$60.02	\$32.47	\$35.11	\$31.51
HOUGHTON INTERNATIONAL INC.	\$99.22	\$49.20	\$31.49	\$18.53	\$0.00
HOUGHTON INTERNATIONAL INC.	\$874.41	\$874.41	\$0.00	\$0.00	\$0.00
HUNTINGTON CLEANERS	\$146.30	\$146.30	\$0.00	\$0.00	\$0.00
IDP, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
INDUSTRIAL METAL COATING	\$872.23	\$872.23	\$0.00	\$0.00	\$0.00
INTRASTATE DISTRIBUTORS	\$1,160.28	\$1,160.28	\$0.00	\$0.00	\$0.00
ISLAMIC SLAUGHTER HOUSE	\$437.87	\$437.87	\$0.00	\$0.00	\$0.00
ITALIAN BUTTER BREAD STICKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
JAMEX BREWING CO.	\$58.47	\$23.98	\$0.00	\$34.49	\$0.00
KAR NUT PRODUCTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
KOWALSKI SAUSAGES, CO.	\$ (619.11)	\$ (619.11)	\$0.00	\$0.00	\$0.00
KUHNHENN BREWING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$433.47	\$433.47	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$78.81	\$78.81	\$0.00	\$0.00	\$0.00
LEAR CORPORATION DBA EAGLE C	\$2,366.77	\$2,366.77	\$0.00	\$0.00	\$0.00
LIBERTY STREET PROD. BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LILY'S SEAFOOD GRILL & BREWE	\$33.30	\$33.30	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LIQUID ENVIRONMENTAL SOLUTIC	\$1,312.94	\$1,312.94	\$0.00	\$0.00	\$0.00
MACDERMID, INC.	\$1,767.56	\$1,767.56	\$0.00	\$0.00	\$0.00
MCCLURE'S PICKLES	\$782.87	\$628.04	\$154.83	\$0.00	\$0.00
MCNICHOLS POLISHING & ANODIZ	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MELLO MEATS INC, - KUBISCH S	\$ (22.38)	\$ (22.38)	\$0.00	\$0.00	\$0.00
METROPOLITAN BAKERY	\$ (425.21)	\$ (425.21)	\$0.00	\$0.00	\$0.00
MIBA HYDRAMECHANICA CORP.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MICHIGAN DAIRY	\$131,408.97	\$131,408.97	\$0.00	\$0.00	\$0.00
MICHIGAN PROD. MACHINING	\$2,472.75	\$2,472.75	\$0.00	\$0.00	\$0.00
MICHIGAN SOY PRODUCTS CO.	\$335.99	\$335.99	\$0.00	\$0.00	\$0.00
MIDWEST WIRE PRODUCTS, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MILANO BAKERY	\$776.78	\$776.78	\$0.00	\$0.00	\$0.00
MILTON CHILI CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MINNIE MARIE BAKERS, INC	\$1,148.33	\$1,148.33	\$0.00	\$0.00	\$0.00
MISTER UNIFORM & MAT RENTALS	\$ (17.04)	\$0.00	\$0.00	\$ (17.04)	\$0.00
MOTOR CITY BREWING WORKS	\$139.37	\$93.24	\$0.00	\$46.13	\$0.00
NATIONAL CHILI COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIONAL CHILI COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIONAL CHILI COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NEAPCO DRIVELINES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NORTH CENTER BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NORTHERN LAKES SEAFOOD & MEZ	\$37.98	\$37.98	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
OAKWOOD BAKERY	\$40.35	\$40.35	\$0.00	\$0.00	\$0.00
OLIVER HATCH CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PARKER'S HILLTOP BREWER & SE	\$54.68	\$54.68	\$0.00	\$0.00	\$0.00
PELLERITO FOODS INC.	\$4.08	\$4.08	\$0.00	\$0.00	\$0.00
PEPSI COLA, INC.	\$26,458.54	\$26,458.54	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$41,908.90	\$41,908.90	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$17,550.64	\$17,550.64	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$3,153.25	\$3,153.25	\$0.00	\$0.00	\$0.00
PERSONAL UNIFORM SERVICE, IN	\$42.92	\$31.72	\$11.20	\$0.00	\$0.00
PETRO ENVIRON TECH, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PINE TREE ACRES, INC.	\$16,696.77	\$16,696.77	\$0.00	\$0.00	\$0.00
PLATING SPEC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
POWER VAC OF MICHIGAN, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PREMIER PLATING, LLC	\$1,828.62	\$1,828.62	\$0.00	\$0.00	\$0.00
PRODUCTION SPRING, LLC.	\$312.57	\$312.57	\$0.00	\$0.00	\$0.00
QUALA SERVICES, LLC	\$ (15.34)	\$0.00	\$ (15.34)	\$0.00	\$0.00
RAY'S ICE CREAM CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
RED SPOT PAINT #409139	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
RIVER ROUGE BREWING COMPANY	\$440.60	\$0.00	\$0.00	\$0.00	\$440.60
ROAK BREWING CO. LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ROCHESTER MILLS BEER COMPANY	\$138.57	\$138.57	\$0.00	\$0.00	\$0.00
ROCHESTER MILLS PROD BREWERY	\$3,878.00	\$866.35	\$0.00	\$1,246.57	\$1,765.08
ROYAL OAK BREWERY	\$59.60	\$59.60	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
RTT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SEAFARE FOODS, INC.	\$541.32	\$541.32	\$0.00	\$0.00	\$0.00
SHERWOOD BREWING COMPANY	\$87.08	\$39.96	\$0.00	\$47.12	\$0.00
SMITH-WATKINS, LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SPRAYTEK, INC.	\$14.52	\$0.00	\$0.00	\$0.00	\$14.52
SUPERNATURAL SPIRITS & BREW	\$72.93	\$72.93	\$0.00	\$0.00	\$0.00
SWEETHEART BAKERY, INC.	\$276.25	\$106.93	\$48.79	\$51.32	\$69.21
THE CROWN GROUP-LIVONIA PLAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
THERMO FISHER SCIENTIFIC	\$32,533.81	\$32,533.81	\$0.00	\$0.00	\$0.00
TOM LAUNDRY CLEANERS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TRAFFIC JAM & SNUG	\$ (31.16)	\$0.00	\$0.00	\$0.00	\$ (31.16)
TURRI'S ITALIAN FOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TURRI'S ITALIAN FOODS	\$204,695.90	\$204,695.90	\$0.00	\$0.00	\$0.00
U-METCO, INC.	\$653.02	\$653.02	\$0.00	\$0.00	\$0.00
UNCLE RAYS SNACKS, LLC	\$44,954.23	\$44,954.23	\$0.00	\$0.00	\$0.00
UNCLE RAYS SNACKS, LLC	\$2,099.73	\$2,099.73	\$0.00	\$0.00	\$0.00
UNIQUE LINEN SERVICES, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
UNITED FISH DISTRIBUTORS	\$0.73	\$0.73	\$0.00	\$0.00	\$0.00
UNITED LINEN SERVICE, LLC.	\$209.12	\$209.12	\$0.00	\$0.00	\$0.00
UNITED MEAT & DELI	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
URBANREST BREWING COMPANY	\$75.26	\$75.26	\$0.00	\$0.00	\$0.00
US ECOLOGY MICHIGAN	\$222.43	\$222.43	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 10/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
US ECOLOGY ROMULUS, INC.	\$3,554.66	\$3,554.66	\$0.00	\$0.00	\$0.00
USHER OIL SERVICES	\$1,834.22	\$1,834.22	\$0.00	\$0.00	\$0.00
VALICOR ENVIROMENTAL SERVICE	\$300.65	\$300.65	\$0.00	\$0.00	\$0.00
VAUGHAN INDUSTRIES, INC.	\$16.99	\$16.99	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS	\$7,634.28	\$7,634.28	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS, INC.	\$316.36	\$316.36	\$0.00	\$0.00	\$0.00
VERNOR FOOD PRODUCTS	\$110.99	\$72.59	\$38.40	\$0.00	\$0.00
WIGLEY'S MEAT PROCESS	\$340.11	\$340.11	\$0.00	\$0.00	\$0.00
WINTER SAUSAGE MFG. CO.	\$1,169.71	\$1,169.71	\$0.00	\$0.00	\$0.00
WINTER SAUSAGE MFG. CO.	\$ (31.31)	\$0.00	\$ (31.31)	\$0.00	\$0.00
WOLVERINE PACKING CO	\$1,702.62	\$1,702.62	\$0.00	\$0.00	\$0.00
WOLVERINE PACKING CO.	\$2,089.83	\$2,089.83	\$0.00	\$0.00	\$0.00
WOODWARD AVENUE BREWERS	\$144.24	\$0.00	\$0.00	\$0.00	\$144.24
TOTAL POLLUTANT SURCHARGE ACCOUNTS	\$790,522.70	\$781,636.56	\$4,270.22	\$1,830.95	\$2,784.97

City of Highland Park Billings and Collections

	Water	Sewer	IWC	Cumulative Total
June 30, 2012 Balance	\$ -	\$ 10,207,956	\$ 852,987	\$ 11,060,943
FY 2013 Billings	485,887	4,987,635	154,444	5,627,966
FY 2013 Payments	(65,652)	(2,206,211)	-	(2,271,863)
				-
June 30, 2013 Balance	\$ 420,235	\$ 12,989,380	\$ 1,007,431	\$ 14,417,046
FY 2014 Billings	1,004,357	6,980,442	161,951	8,146,750
FY 2014 Payments	-	(1,612,633)	-	(1,612,633)
				-
June 30, 2014 Balance	\$ 1,424,592	\$ 18,357,189	\$ 1,169,382	\$ 20,951,163
FY 2015 Billings	1,008,032	5,553,123	165,739	6,726,894
FY 2015 Payments	-	(1,444,623)	-	(1,444,623)
				-
June 30, 2015 Balance	\$ 2,432,625	\$ 22,465,689	\$ 1,335,121	\$ 26,233,435
FY 2016 Billings	1,157,178	5,612,167	106,431	6,875,776
FY 2016 Payments	-	(2,022,335)	-	(2,022,335)
				-
June 30, 2016 Balance	\$ 3,589,803	\$ 26,055,521	\$ 1,441,551	\$ 31,086,875
FY 2017 Billings	1,245,267	5,802,000	101,999	7,149,265
FY 2017 Payments	-	(2,309,186)	-	(2,309,186)
				-
June 30, 2017 Balance	\$ 4,835,070	\$ 29,548,335	\$ 1,543,550	\$ 35,926,954
FY 2018 Billings	1,277,179	5,657,101	80,472	7,014,752
FY 2018 Payments	-	(4,108,108)	-	(4,108,108)
				-
June 30, 2018 Balance	\$ 6,112,248	\$ 31,097,327	\$ 1,624,022	\$ 38,833,597
FY 2019 Billings	1,238,797	5,617,100	51,220	6,907,117
FY 2019 Payments	-	(5,241,583)	-	(5,241,583)
				-
June 30, 2019 Balance	\$ 7,351,045	\$ 31,472,844	\$ 1,675,243	\$ 40,499,132
FY 2020 Billings	1,182,639	5,665,400	47,097	6,895,136
FY 2020 Payments	-	(3,026,117)	-	(3,026,117)
				-
June 30, 2020 Balance	\$ 8,533,684	\$ 34,112,127	\$ 1,722,340	\$ 44,368,151
FY 2021 Billings	1,185,506	5,702,000	47,423	6,934,929
FY 2021 Payments	-	(2,783,552)	-	(2,783,552)
				-
June 30, 2021 Balance	9,719,190	37,030,575	1,769,763	48,519,528
FY 2022 Billings	1,222,260	5,389,300	48,322	6,659,882
FY 2022 Payments	-	(1,788,828)	-	(1,788,828)
				-
June 30, 2022 Balance	\$ 10,941,450	\$ 40,631,047	\$ 1,818,085	\$ 53,390,582
FY 2023 Billings (4 Months)	435,926	1,801,500	16,135	2,253,561
FY 2023 Payments (4 Months)	-	(521,871)	-	(521,871)
				-
Balance as of October 31, 2022	\$ 11,377,376	\$ 41,910,676	\$ 1,834,220	\$ 55,122,272

GLWA

Great Lakes Water Authority



Monthly Financial Report Binder

November 2022

**Presented to the
Great Lakes Water Authority
Audit Committee on February 24, 2023**

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Key Financial Metrics

The table below provides key report highlights and flags the financial risk of a budget shortfall by year-end as follows: No Risk (green) - Potential (yellow) - Likely (red)

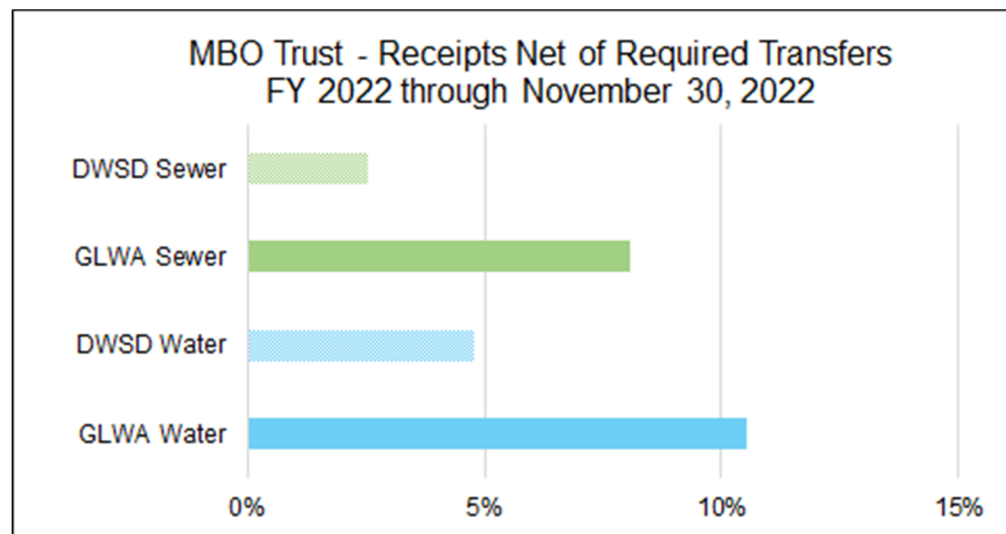
Each variance is monitored by the Great Lakes Water Authority (GLWA) management and, where appropriate, operating and/or budget priorities are re-evaluated. Budget amendments are prepared and presented quarterly based on most current information. This report reflects first quarter FY 2023 budget amendments approved by the GLWA Board of Directors on October 26, 2022.

For the current period, wholesale water operations and maintenance, water capital spend, and sewer capital spend all reflect variances to budget outside the normal range. GLWA staff will continue to monitor these areas to see if additional budget amendments will be necessary.

As of November 30, 2022					
Metric	FY 2023 Budget	FY 2023 Amended Budget	FY 2023 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue (\$M)	\$148.3	\$148.3	\$149.5	1%	47
Wholesale Water Billed Usage (mcf)	6,285,000	6,285,000	6,354,000	1%	
Wholesale Sewer Billed Revenue (\$M)	\$114.4	\$114.4	\$114.4	0%	49
Wholesale Water Operations & Maintenance (\$M)	\$60.4	\$60.4	\$63.0	4%	5
Wholesale Sewer Operations & Maintenance (\$M)	\$76.7	\$81.2	\$81.7	1%	
Investment Income (\$M)	\$1.0	\$7.3	\$7.7	6%	36
Water Prorated Capital Spend w/SRA* (\$M)	\$64.8	\$81.0	\$87.5	8%	28
Sewer Prorated Capital Spend w/SRA* (\$M)	\$39.4	\$52.5	\$36.0	-31%	29

*SRA refers to the capital spending ratio assumption which allows capital program delivery realities to align with the financial plan.

Master Bond Ordinance (MBO) Trust Net Receipts (page 52)



Net cash flow receipts remain positive for GLWA Water and Sewer. This means that all legal commitments of the MBO Trust and the lease payment are fully funded – and that positive cash

flow is available for additional capital program funding in subsequent year(s). DWSD Water reports a surplus of \$2.2 million and DWSD Sewer reports a surplus of \$3.1 million of net receipts over disbursements through November 2022.

Budget to Actual Analysis (page 3)

- FY 2023 information includes the first quarter budget amendments which were approved by the GLWA Board on October 26, 2022.
- The total Revenue Requirements are on target through November 2022.
- The total overall Operations & Maintenance expenses are at 42.6% of budget through November 2022 which is slightly above the pro-rata benchmark of 41.7%. This negative variance equates to a dollar amount of \$3.2 million.

Basic Financial Statements (page 9)

- The Basic Financial Statements are prepared on a full accrual basis and reflect preliminary, unaudited results.
- Operating income for November 2022 is \$42.6 million for the Water fund (26.7% of total revenues) and \$48.6 million for the Sewer fund (24.3 % of total revenues).
- Water Net Position increased by \$ 10.8 million, and Sewage Disposal Net Position increased by \$ 5.5 million for the year to date through November 2022.

Capital Improvement Plan Financial Summary (page 27)

- The Water system exceeds the amended 100% Capital Spend Ratio assumption.
- The Sewer system falls short of the amended 100% Capital Spend Ratio assumption.

Master Bond Ordinance Transfers (page 30)

- For November, transfers of \$13.7 million and \$19.0 million were completed for the GLWA Water and Sewer funds, respectively.
- Also, for November, transfers of \$6.0 million and \$6.0 million were completed for the DWSD Water and Sewer funds, respectively.

Cash Balances & Investment Income (page 36)

- Total cash & investments are \$564 million in the Water fund and \$654 million in the Sewer fund.
- Total, combined, cumulative, FY 2023 investment income through November is \$7.7 million.

DWSD Retail Revenues, Receivables & Collections (page 40)

- Water usage through November 30, 2022 is 108.11% and revenues are 104.10% of budget.
- Sewer usage through November 30, 2022 is 105.43% and revenues are 102.48% of budget.
- Combined accounts receivable balances for the water and sewer funds report an increase of \$49.5 million over the prior year.
- Past dues over 180 days make up 67.3% of the total accounts receivable balance. The current bad debt allowance covers 95.7% of past dues over 60 days.

GLWA Wholesale Billing, Receivables & Collections (page 46)

- GLWA accounts receivable past due balance net of Highland Park is 9.22% of the total accounts receivable balance, with the majority of that balance related to one water account dispute currently under discussion.
- The Highland Park past due balance is \$55.2 million. It includes \$41.9 million for wastewater treatment services, \$1.8 million for industrial waste control services, and \$11.5 million for water supply services. Highland Park made a catch-up payment of \$1.7 million on June 3, 2022 and has continued to make additional, monthly payments since that time totaling \$1.1 million as of November 30, 2022.

Questions? Contact the Office of the Chief Financial Officer at CFO@glwater.org

The Monthly Budget to Actual Analysis report includes the following three sections.

1. Revenue Requirements Budget Basis Analysis
2. Operations & Maintenance Budget – Major Budget Categories
3. Alignment of Operations & Maintenance Budget Priorities – Expense Variance Analysis

The FY 2023 information presented in these sections includes the first quarter FY 2023 budget amendments approved by the GLWA Board on October 26, 2022.

Revenue Requirements Budget Basis Analysis

GLWA's annual revenue requirements represent the basis for calculating Member Partner charges and aligns with the Master Bond Ordinance flow of funds categories. The budget basis is not the same as the full accrual basis used for financial reporting although the revenues and operations and maintenance expenses are largely reported on an accrual basis. The primary difference between the revenue requirements budget basis to the financial reporting basis is the treatment of debt service, legacy pension obligations, and lease related activities. The Revenue Requirements Basis is foundational to GLWA's daily operations, financial plan, and of most interest to key stakeholders.

Table 1A – Water Revenue Requirements Budget and **Table 1B – Sewer Revenue Requirements Budget** presents a year-over-year budget to actual performance report. The revenue requirements budget is accounted for in the operations and maintenance fund for each system. Since this report is for November 2022, the pro-rata benchmark is 41.7% (5 of 12 months of the fiscal year).

Items noted below are highlighted in gold on Tables 1A (Water) and 1B (Sewer).

1. **Revenues:** For *both* systems, FY 2023 revenues are either at or above target. Detailed schedules related to revenues are provided in the *Wholesale Billings, Collections, and Receivables* section of this financial report binder.

Water revenues presented in Table 1A differ from those presented in *Table 2 – Statement of Revenues, Expenses and Changes in Net Position* found in the *Basic Financial Statement* section of this report. Water Revenues presented in Table 1A for revenue requirement purposes are reduced by the monthly payment to the City of Flint for a license to raw water rights under the Flint Raw Water Contract as documented in Appendix A-2 of the [Flint Water Agreement](#). Through November 30, 2022, these payments total \$2.7 million for FY 2023.

2. **Investment Earnings:** For both systems, investment earnings are below the pro-rata benchmark for FY 2023; the *water* system is at 26.1%; while the *sewer* system is at 31.2%. Detailed analysis of investment earnings activity to date can be found in the *Cash & Investment Income* section of this financial report binder.
3. **Other Revenues:** These are one-time and unusual items that do not fit an established revenue category. Both the *water* and *sewer* systems actual amount will vary from budget due to the nature of the items recorded in this category.
4. **Operations & Maintenance Expense:** Actual expenses¹ for *both* systems have variances from the pro-rata benchmark. The *water* system is above the pro-rata benchmark for FY 2023 at 43.5%. The *sewer* system O&M expenses, at 42.0%, is slightly above the pro-rata benchmark.
5. **Debt Service:** For FY 2023, the *water* system, at 42.0%, is slightly above the pro-rata benchmark for debt service while the *sewer* system, at 41.4%, is slightly below the target. The activity is based on the payment schedules adjusted for the State Revolving Fund loans that are still being drawn down.
6. **Operating Reserve Deposit:** GLWA has established a target balance in the O&M Fund of 45 days of operating expense which works in tandem with the I&E Funds to provide liquidity to the utility. Adequate funding is in place to meet this requirement; therefore, it is expected that additional transfers to this reserve will not be required in FY 2023.
7. **DWSD Budget Shortfall Pending:** To the extent that the local (DWSD) system experiences budgetary shortfalls as defined by the Water & Sewer Services Agreement, the GLWA budget is impacted.² Steps to proactively detect, and ideally prevent, this shortfall scenario were put into place with the 2018 Memorandum of Understanding (dated June 27, 2018). For FY 2022, DWSD management successfully implemented a formal plan to end the year with positive net cash flows for both the DWSD *water* system and the DWSD *sewer* system. For FY 2023, neither the DWSD *water* system nor the DWSD *sewer* system have a budgetary shortfall through November 30, 2022. GLWA and DWSD staff meet regularly to discuss steps to mitigate shortfalls, when they occur, as outlined in the 2018 MOU.
8. **Improvement & Extension (I&E) Fund Transfer Pending:** The contribution to the I&E Fund is for improvements, enlargements, extensions, or betterment of the *water* and *sewer* systems.
9. **Other Revenue Requirements:** The remaining revenue requirements for *both* systems are funded on a 1/12th basis each month in accordance with the Master Bond Ordinance.
10. **Overall:** Total revenue requirements for *both* systems are in line with the benchmark.

¹The tables in this analysis reflect actual amounts spent. If this analysis was on a master bond ordinance (MBO) basis, like that used for calculating debt service coverage, O&M "expense" would equal the pro-rata budget because 1/12 of the O&M budget is transferred monthly outside the MBO trust to an O&M bank account.

² As a reminder, the monthly O&M transfer for MBO purposes is at 1/12 of the budget to a DWSD O&M bank account outside the trust. Actual budget may be less than that amount providing an actual positive variance for DWSD.

Table 1A – Water Revenue Requirements Budget (year-over-year) – (\$000)

	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 11/30/2021	Percent Year-to- Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 11/30/2022	Percent Year-to- Date
Water System							
Revenues							
Suburban Wholesale Customer Charges	\$ 315,011	\$ 137,844	43.8%	\$ 331,962	\$ 330,856	\$ 146,787	44.4%
Retail Service Charges	21,697	9,041	41.7%	22,986	22,834	9,544	41.8%
Investment Earnings	1,924	900	46.8%	949	6,870	1,791	26.1%
Other Revenues	684	154	22.5%	175	175	234	133.5%
Total Revenues	\$ 339,316	\$ 147,939	43.6%	\$ 356,072	\$ 360,736	\$ 158,356	43.9%
Revenue Requirements							
Operations & Maintenance Expense	\$ 143,934	\$ 55,162	38.3%	\$ 144,848	\$ 144,848	\$ 63,025	43.5%
General Retirement System Legacy Pension	6,048	2,520	41.7%	6,048	6,048	2,520	41.7%
Debt Service	135,121	56,543	41.8%	150,337	150,827	63,380	42.0%
General Retirement System Accelerated Pension	6,268	2,612	41.7%	6,268	6,268	2,612	41.7%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	1,706	711	41.7%	1,771	1,771	738	41.7%
Regional System Lease	22,500	9,375	41.7%	22,500	22,500	9,375	41.7%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending	-	-	0.0%	-	-	-	0.0%
Improvement & Extension Fund Transfer Pending	23,740	11,486	48.4%	24,300	28,474	11,864	41.7%
Total Revenue Requirements	\$ 339,316	\$ 138,409	40.8%	\$ 356,072	\$ 360,736	\$ 153,514	42.6%
Net Difference		\$ 9,530				\$ 4,842	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ 6,557				\$ 8,049	
Revenue Requirement Variance		2,973				(3,208)	
Overall Variance		\$ 9,530				\$ 4,842	

Table 1B – Sewer Revenue Requirements Budget (year-over-year) – (\$000)

	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 11/30/2021	Percent Year-to- Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 11/30/2022	Percent Year-to- Date
Sewer System							
Revenues							
Suburban Wholesale Customer Charges	\$ 268,130	\$ 113,441	42.3%	\$ 275,404	\$ 273,007	\$ 114,751	42.0%
Retail Service Charges	188,662	78,609	41.7%	191,042	191,042	79,601	41.7%
Industrial Waste Control Charges	8,325	3,466	41.6%	8,420	8,420	3,501	41.6%
Pollutant Surcharges	5,089	2,122	41.7%	4,951	4,951	1,993	40.3%
Investment Earnings	1,876	725	38.6%	1,156	8,771	2,732	31.2%
Other Revenues	538	258	48.0%	400	400	341	85.3%
Total Revenues	\$ 472,620	\$ 198,621	42.0%	\$ 481,372	\$ 486,591	\$ 202,920	41.7%
Revenue Requirements							
Operations & Maintenance Expense	\$ 191,909	\$ 71,881	37.5%	\$ 184,053	\$ 194,823	\$ 81,732	42.0%
General Retirement System Legacy Pension	10,824	4,510	41.7%	10,824	10,824	4,510	41.7%
Debt Service	204,985	86,363	42.1%	205,638	211,355	87,522	41.4%
General Retirement System Accelerated Pension	11,621	4,842	41.7%	11,621	11,621	4,842	41.7%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	2,358	983	41.7%	2,394	2,394	998	41.7%
Regional System Lease	27,500	11,458	41.7%	27,500	27,500	11,458	41.7%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending	-	2,229	0.0%	-	-	-	0.0%
Improvement & Extension Fund Transfer Pending	23,424	13,888	59.3%	39,343	28,075	11,698	41.7%
Total Revenue Requirements	\$ 472,620	\$ 196,153	41.5%	\$ 481,372	\$ 486,591	\$ 202,760	41.7%
Net Difference		\$ 2,467				\$ 160	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ 1,696				\$ 174	
Revenue Requirement Variance		772				(14)	
Overall Variance		\$ 2,467				\$ 160	

Operations & Maintenance Budget – Major Budget Categories

The year-over-year benchmark ratio as of November 30, 2022, is 41.7% (five months). When comparing FY 2023 to FY 2022 in **Table 2 – Operations & Maintenance Budget – Major Budget Categories**, the overall spending is higher in FY 2023.

In addition to the four major budget categories, an internal charge cost center for employee benefits is shown in the table below. If the number is positive, it indicates that the internal cost allocation rate charges to other cost centers is not sufficient. A negative number indicates a surplus in the internal cost center. A moderate surplus is preferred as it provides a hedge for mid-year benefit program cost adjustments (premiums adjust on January 1 each year) as well as managing risk as the program is partially self-insured.

Table 2 – Operations & Maintenance Budget – Major Budget Categories – (\$000)

Major Budget Categories	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 11/30/2021	Percent Year-to- Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 11/30/2022	Percent Year-to- Date
Water	\$ 76,422	\$ 31,813	41.6%	\$ 76,518	\$ 76,518	\$ 35,763	46.7%
Sewer	120,971	45,865	37.9%	113,198	123,967	56,173	45.3%
Centralized	103,846	36,670	35.3%	104,503	104,503	39,793	38.1%
Administrative	34,603	12,695	36.7%	34,682	34,682	13,029	37.6%
Employee Benefits	-	-	0.0%	-	-	-	0.0%
Total O&M Budget	\$ 335,843	\$ 127,043	37.8%	\$ 328,900	\$ 339,670	\$ 144,757	42.6%
<i>Totals may be off due to rounding</i>							

Alignment of Operations & Maintenance Budget Priorities – Expense Variance Analysis

The purpose of **Table 3 – Operations & Maintenance Expense Variance Analysis** is to evaluate whether the actual spend rate within a natural cost category is in alignment with the budget. Given the effort to develop an accurate budget, a variance is a red flag of a *potential* budget amendment or misalignment of priorities.

Total: In total, the overall O&M expenses are at 42.6% which is slightly above the pro-rata benchmark of 41.7%. This negative variance equates to a dollar amount of \$3.2 million. The expense category commentary is provided below for items highlighted on Table 3.

Personnel Costs: The overall category is slightly under the pro-rata benchmark; coming in at 39.7% through November 2022.

Utilities: The overall category is above the pro-rata benchmark; coming in at 55.6% through November 2022. Variances within this category, when they occur, are not unexpected as usage varies throughout the year.

- **Electric** is higher than the pro-rata benchmark, coming in at 48.2%. The FY 2023 budget was adjusted for the increase to the charge for kWh, however, an additional budget amendment is anticipated for the second quarter FY 2023. It should be noted that variances are not unexpected as usage varies throughout the year. The first three months of GLWA's fiscal year (July, August, and September) are typically peak months for the usage of electricity. June, the last month of GLWA's fiscal year, is typically a peak month as well.
- **Gas** is coming in at 65.2% which is higher than the benchmark of 41.7%. Variances within this category are not unexpected as usage varies throughout the year. The FY 2023 budget was adjusted for the increase in both usage as well as for the cost of natural gas MMBTU. Further review of this category is being conducted.
- **Sewage service** is higher than the benchmark, coming in at 44.0%. Increased usage is being reported at the WRRF (in part due to bills being received for actual meter readings when in the past the bills had been estimated), the Biosolids Dryer Facility (BDF), and the Southwest Water Plant. A review of this category is being conducted.
- **Water service** is higher than the benchmark, coming in at 141.5%. As meters have been repaired or replaced at the WRRF, the billings that previously reported estimated readings have been replaced with actual readings. The actual readings are coming in higher than the estimated billings. In addition, a new water billing structure was implemented in early FY 2023 which has resulted in an increase in the water billing rate. A review of this category is being conducted and a second quarter FY 2023 budget amendment is anticipated.

Chemicals: This category is higher than the pro-rate benchmark; coming in at 50.5% through November 2022. The FY 2023 budget was adjusted for the increase in chemical costs for the sewer system, however, the analysis of the rising chemical costs is ongoing, and a budget amendment is anticipated for the second quarter FY 2023 for the water system.

Supplies & Other: This category is lower than the benchmark; coming in at 37.3% through November 2022. Given that the nature of the items in this category are subject to one-time expenses that do not occur evenly throughout the year, variances are not unexpected. A review of this category is being conducted.

Contractual Services: The overall category is slightly lower than the pro-rata benchmark; coming in at 39.2% through November 2022. Variances in this category, when they occur, are not unexpected as the usage of contracts varies throughout the year (projects scheduled to begin during the latter half of the year as well as contracts that are on an as needed basis). Budget amendments will be processed for those projects in which the actual start dates have been delayed from that in which they were budgeted.

Capital Program Allocation: This category is lower than the benchmark; coming in at 18.0% through November 2022. The amount in the Capital Program Allocation account is shown as negative as this is a “contra” account which represents an offset to the Personnel Costs section of the Operations & Maintenance (O&M) budget. A review of this category is being conducted.

Shared Services: This category is lower than the benchmark; coming in at 33.0% through November 2022. The shared services reimbursement is comprised of both labor (tracked via BigTime) and expenses, such as annual fees for software licensing. Staff from both GLWA and DWSD have been working together to evaluate and refine the budget for the shared services agreements. Based on these evaluations, adjustments have been made to both the billings and accounting accruals to reflect the forecasted activity more accurately for FY 2023. In addition, it is important to note that some of the shared services agreements are not billed at a monthly rate of 1/12 of the annual budgeted amount.

Table 3 – Operations & Maintenance Expense Variance Analysis – (\$000)

Expense Categories	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 11/30/2021	Percent Year-to- Date at 11/30/2021	FY 2022 ACTIVITY THRU 6/30/2022	Percent Year-to- Date at 6/30/2022	FY 2023 AMENDED BUDGET	FY 2023 PRORATED BUDGET (5 MONTHS)	FY 2023 ACTIVITY THRU 11/30/2022	Percent Year-to- Date 11/30/2022	FY 2023 PRORATED BUDGET LESS FY 2023 ACTIVITY
Entity-wide										
Salaries & Wages	\$ 66,113	\$ 27,335	41.3%	\$ 63,901	42.8%	\$ 72,925	\$ 30,386	\$ 29,571	40.6%	\$ 814
Workforce Development	869	319	36.7%	844	37.7%	1,802	751	504	28.0%	246
Overtime	8,126	3,278	40.3%	8,113	40.4%	6,984	2,910	3,487	49.9%	(577)
Employee Benefits	25,956	10,691	41.2%	24,206	44.2%	28,947	12,061	10,561	36.5%	1,501
Transition Services	10,805	4,178	38.7%	9,990	41.8%	11,119	4,633	4,230	38.0%	404
Employee Benefits Fund	-	-	0.0%	-	0.0%	-	-	-	0.0%	-
Personnel Costs	111,869	45,801	40.9%	107,053	42.8%	121,777	50,740	48,353	39.7%	2,388
Electric	43,950	18,793	42.8%	43,755	43.0%	42,114	17,548	20,292	48.2%	(2,745)
Gas	7,081	2,056	29.0%	8,665	23.7%	8,553	3,564	5,577	65.2%	(2,013)
Sewage Service	2,510	1,141	45.5%	2,568	44.4%	2,268	945	999	44.0%	(54)
Water Service	5,841	959	16.4%	4,669	20.5%	2,982	1,242	4,220	141.5%	(2,978)
Utilities	59,383	22,949	38.6%	59,656	38.5%	55,918	23,299	31,088	55.6%	(7,789)
Chemicals	19,842	7,600	38.3%	20,382	37.3%	23,782	9,909	12,002	50.5%	(2,093)
Supplies & Other	35,034	10,946	31.2%	29,711	36.8%	34,912	14,547	13,007	37.3%	1,540
Contractual Services	111,198	41,980	37.8%	107,527	39.0%	105,993	44,164	41,592	39.2%	2,571
Capital Program Allocation	(2,684)	(1,093)	40.7%	(2,632)	41.5%	(4,376)	(1,823)	(789)	18.0%	(1,035)
Shared Services	(3,202)	(1,139)	35.6%	(2,398)	47.5%	(1,501)	(625)	(496)	33.0%	(130)
Unallocated Reserve	4,402	-	0.0%	-	0.0%	3,167	1,320	-	0.0%	1,320
Total Expenses	\$ 335,843	\$ 127,043	37.8%	\$ 319,300	39.8%	\$ 339,670	\$ 141,529	\$ 144,757	42.6%	\$ (3,228)



The Basic Financial Statements report includes the following four tables.

1. Statement of Net Position - All Funds Combined
2. Statement of Revenues, Expenses and Changes in Net Position – All Funds Combined
3. Supplemental Schedule of Operations & Maintenance Expenses -All Funds Combined
4. Supplemental Schedule of Nonoperating Expenses – All Funds Combined

At a macro level GLWA has two primary funds for financial reporting purposes: *Water Fund* and *Sewage Disposal Fund*. These funds represent the combined total of four sub-funds for each system that are used internally to properly account for sources and uses of funds. Those sub-funds for each system are: *Operations & Maintenance Fund*, *Improvement & Extension Fund*, *Construction Fund*, and *Capital Asset Fund*.

The June 2022 comparative amounts shown in the tables below are presented based on final audited figures.

Statement of Net Position – All Funds Combined

Explanatory notes follow the Statement of Net Position shown in Table 1 below.

**Table 1 – Statement of Net Position - All Funds Combined
As of November 30, 2022
(\$000)**

	Water	Sewage Disposal	Total Business- type Activities	Comparative June 30, 2022
Assets				
Cash - unrestricted (a)	\$ 162,455	\$ 219,233	\$ 381,688	\$ 347,655
Cash - restricted (a)	65,183	44,519	109,702	113,378
Investments - unrestricted (a)	73,750	96,525	170,275	185,209
Investments - restricted (a)	245,502	304,696	550,198	144,445
Accounts Receivable	96,899	58,322	155,221	175,133
Due from (to) Other Funds (b)	11,038	(11,038)	-	-
Other Assets (c)	664,074	410,733	1,074,807	1,077,698
Cash held FBO DWSD Advance	-	-	-	-
Capital Assets, net of Depreciation	1,254,453	2,074,878	3,329,331	3,432,437
Land	294,076	126,816	420,892	420,750
Construction Work in Process (e)	350,599	228,342	578,941	467,190
Total assets	3,218,030	3,553,025	6,771,055	6,363,896
Deferred Outflows (f)	51,691	126,307	177,998	182,497
Liabilities				
Liabilities - Liabilities-ST	177,026	189,455	366,481	354,055
Due to (from) Other Funds (b)	-	-	-	-
Other Liabilities (h)	2,038	5,442	7,480	7,500
Cash Held FBO DWSD (d)	18,318	15,595	33,913	20,470
Liabilities - Long-Term (i)	3,112,986	3,514,191	6,627,177	6,263,510
Total liabilities	3,310,368	3,724,683	7,035,051	6,645,535
Deferred Inflows (f)	57,819	59,205	117,024	120,157
Total net position (j)	\$ (98,467)	\$ (104,556)	\$ (203,023)	\$ (219,299)
<i>Totals may be off due to rounding</i>				

In general, the Statement of Net Position reflects a mature organization with no unexpected trends.

An ongoing challenge is the Net Position Deficit. The underlying causes took years to build (largely heavy use of debt to finance capital asset investment versus a strategic blend of debt, state revolving funds, and cash). The effect is reflected in GLWA's high debt interest expense. The GLWA is regularly updating the FY 2032 forecast which helps to provide a pathway to a positive Net Position in the future.

Footnotes to Statement of Net Position

- a. *Cash and Investments* are reported at market value. Investments at June 30, 2022 are also reported at market value. The November 30, 2022 values differ from the Cash and Investment section of this Financial Report Binder due to timing of certain items recognized on a cash versus accrual basis.
- b. *Due from Other Funds* and *Due to Other Funds* are shown at gross for sub-fund activity.
- c. *Other Assets* primarily consists of the contractual obligation receivable from DWSD related to reimbursement of bonded indebtedness for local system improvements.
- d. *Cash Held FBO Advance (for benefit of) DWSD* and *Cash Held FBO DWSD* represents the net difference between DWSD retail cash received from customers and net financial commitments as outlined in the Master Bond Ordinance.
- e. *Construction Work in Process* represents the beginning balance of CWIP plus any construction spending during the fiscal year. The balance will fluctuate based on the level of spend less any capitalizations or write-offs.
- f. *Deferred Inflow* and *Deferred Outflow* relate mainly to financing activity and GLWA's share of the legacy General Retirement System (GRS) pension obligation.
- g. *Liabilities - Short-term* include accounts payable, retainage payable, and certain accrued liabilities. Some items, such as compensated absences and worker's compensation, are reviewed periodically but only adjusted in the interim if there is a material change.
- h. *Other Liabilities* account for the cash receipts set aside for the Budget Stabilization Fund and the Water Residential Assistance Program.
- i. *Liabilities – Long-term* include bonds payable, lease payable, and legacy General Retirement System pension liabilities.
- j. *Net Position Deficit* is defined by accounting standards as the residual of all other elements presented in a statement of financial position. It is the difference between (a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources. A net deficit occurs when the liabilities and deferred inflows exceed assets and deferred outflows. GLWA's net deficit is largely driven by an increase in depreciation expense because of the increase in the acquisition valuation approach for recording capital asset values in the opening Statement of Net Position on January 2016. Efforts are underway to evaluate the net operating effect of this matter over the long term.

Statement of Revenues, Expenses and Changes in Net Position

– All Funds Combined

This statement, shown in Table 2, is presented in summary format. The accrual basis of revenues and operations and maintenance expense vary from the revenue requirement basis presented in the *Budget to Actual Analysis* and the *Wholesale Billings, Receivables & Collections* sections of the November 2022 Financial Report Binder. Prior year ending balances are provided in the June 30, 2022 column as a reference for comparative purposes. Explanatory notes follow this statement.

Water revenues presented below in Table 2 differ from those presented in *Table 1A – Water Revenue Requirement Budget* found in the *Budget to Actual Analysis* section of this report because water revenues presented in Table 1A for revenue requirement purposes are reduced by the monthly payment to the City of Flint for a license to raw water rights.

Table 2 – Statement of Revenues, Expenses and Changes in Net Position
– All Funds Combined
For the Five Months ended November 30, 2022
(\$000)

	Water	Percent of Revenue	Sewage Disposal	Percent of Revenue	Total Business- Type Activities	Comparative June 30, 2022
Revenue						
Wholesale customer charges	\$ 149,466	93.9%	\$ 114,751	57.3%	\$ 264,217	\$ 591,840
Local system charges	9,544	6.0%	79,601	39.8%	89,145	210,360
Industrial waste charges		0.0%	3,501	1.7%	3,501	8,300
Pollutant surcharges		0.0%	1,993	1.0%	1,993	5,182
Other revenues	230	0.1%	278	0.1%	508	664
Total Revenues	159,239	100.0%	200,125	100.0%	359,364	816,345
Operating expenses						
Operations and Maintenance	63,900	40.1%	83,818	41.9%	147,718	324,735
Depreciation	51,270	32.2%	67,486	33.7%	118,756	281,210
Amortization of intangible assets	1,486	0.9%	183	0.1%	1,669	4,006
Total operating expenses	116,656	73.3%	151,488	75.7%	268,144	609,951
Operating Income	42,583	26.7%	48,637	24.3%	91,220	206,394
Total Nonoperating (revenue) expense	31,784	20.0%	43,160	21.6%	74,944	215,561
Increase/(Decrease) in Net Position	10,799	6.8%	5,477	2.7%	16,276	(9,167)
Net Position (deficit), beginning of year	(109,266)		(110,033)		(219,299)	(210,132)
Net position (deficit), end of year	\$ (98,467)		\$ (104,556)		\$ (203,023)	\$ (219,299)
<i>Totals may be off due to rounding</i>						

Water Fund

- ✓ The increase in Water Fund Net Position is \$10.8 million.
- ✓ Wholesale water customer charges of \$149.5 million account for 93.9% of Water System revenues.
- ✓ Operating expenses of \$116.7 million represent 73.3% of total operating revenue. Depreciation is the largest operating expense at \$51.3 million or 43.9% of operating expense.
- ✓ Amortization of intangible assets represents activity for raw water rights.
- ✓ Operating income after operating expenses (including depreciation) equals \$42.6 million or 26.7% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$33.6 million (this equates to the bonded debt interest expense less the offset from DWSD contractual obligation income).

Sewage Disposal Fund

- ✓ The increase in the Sewage Disposal Fund Net Position is \$5.5 million.
- ✓ Wholesale customer charges of \$114.8 million account for 57.3% of Sewer System revenues. Wholesale customer charges are billed one-twelfth each month based on an agreed-upon historical average “share” of each customer’s historical flows which are formally revisited on a periodic basis. The result is no revenue shortfall or overestimation.
- ✓ Local system (DWSD) charges of \$79.6 million account for 39.8% of total operating revenues. These are also billed at one-twelfth of the annual revenue requirement.
- ✓ Operating expenses of \$151.5 million represent 75.7% of total operating revenue. Depreciation is the largest operating expense at \$67.5 million or 44.5% of total operating expense.
- ✓ Amortization of intangible assets represents activity for a warehouse lease.
- ✓ Operating income after operating expenses (including depreciation) equals \$48.6 million or 24.3% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$39.4 million (this equates to the bonded debt interest expense less the offset from DWSD contractual obligation income).

Supplemental Schedule of Operations & Maintenance Expenses – All Funds Combined

This Supplemental Schedule of Operations & Maintenance Expenses (O&M) schedule is shown below in Table 3. This accrual basis of operations and maintenance expense may vary from the revenue requirement basis presented in the *Budget to Actual Analysis* section of the November 2022 Financial Report Binder. Explanatory notes follow this schedule.

**Table 3 – Supplemental Schedule of Operations & Maintenance Expenses
– All Funds Combined
For the Five Months ended November 30, 2022
(\$000)**

	Water	Percent of Total	Sewage Disposal	Percent of Total	Total Business- Type Activities	Percent of Total
Operating Expenses						
Personnel						
Salaries & Wages	10,827	16.9%	23,479	28.0%	34,306	23.2%
Overtime	2,264	3.5%	1,223	1.5%	3,487	2.4%
Benefits	7,433	11.6%	3,127	3.7%	10,561	7.1%
Total Personnel	\$ 20,525	32.1%	\$ 27,828	33.2%	\$ 48,353	32.7%
Utilities						
Electric	13,795	21.6%	6,497	7.8%	20,292	13.7%
Gas	363	0.6%	5,214	6.2%	5,577	3.8%
Sewage	178	0.3%	821	1.0%	999	0.7%
Water	3	0.0%	4,217	5.0%	4,220	2.9%
Total Utilities	\$ 14,339	22.4%	\$ 16,749	20.0%	\$ 31,088	21.0%
Chemicals	5,241	8.2%	6,761	8.1%	12,002	8.1%
Supplies and other	4,593	7.2%	8,211	9.8%	12,804	8.7%
Contractual services	19,923	31.2%	24,945	29.8%	44,868	30.4%
Capital Adjustment	-	0.0%	-	0.0%	-	0.0%
Capital program allocation	(411)	-0.6%	(378)	-0.5%	(789)	-0.5%
Intergovernmental Agreement	-	0.0%	(112)	-0.1%	(112)	-0.1%
Shared services allocation	(309)	-0.5%	(187)	-0.2%	(496)	-0.3%
Operations and Maintenance Expenses	\$ 63,900	100.0%	\$ 83,818	100.0%	\$ 147,718	100.0%

Totals may be off due to rounding

- ✓ Core expenses for water and sewage disposal systems are utilities (21.0% of total O&M expenses) and chemicals (8.1% of total O&M expenses).
- ✓ Personnel costs (32.7% of total O&M expenses) include all salaries, wages, and benefits for employees as well as staff augmentation contracts that fill a vacant position (contractual transition services).
- ✓ Contractual services (30.4%) includes:
 - Water System costs of sludge removal and disposal services at the Northeast, Southwest and Springwells Water Treatment Plants (approximately \$1.9 million);
 - Sewage Disposal System costs for the operation and maintenance of the biosolids dryer facility (approximately \$6.8 million); and
 - Centralized and administrative contractual costs allocated to both systems for information technology, building maintenance, field, planning and other services.
- ✓ The Capital Program Allocation, Intergovernmental Agreement and Shared Services Allocation are shown as negative amounts because they are 'contra' expense accounts representing offsets to associated costs in other Operations and Maintenance expense categories.

Supplemental Schedule of Nonoperating Expenses – All Funds Combined

The Supplemental Schedule of Nonoperating Expenses – All Funds Combined is shown in Table 4. Explanatory notes follow this schedule.

Table 4 – Supplemental Schedule of Nonoperating Expenses – All Funds Combined
For the Five Months ended November 30, 2022
(\$000)

	Water	Sewage Disposal	Total Business- type Activities	Comparative June 30, 2022
Nonoperating (Revenue)/Expense				
Interest income contractual obligation	\$ (10,231)	\$ (6,831)	\$ (17,062)	\$ (42,120)
Interest income DWSD Shortfall	-	-	-	(145)
Investment earnings	(3,653)	(4,585)	(8,237)	(3,735)
Net (incr) decr in fair value of invstmt	(2,497)	(3,667)	(6,164)	9,119
Other nonoperating revenue	(4)	(63)	(67)	(476)
Interest Expense				
Bonded debt	43,790	46,242	90,032	212,284
Lease obligation	7,026	8,587	15,614	37,836
Other obligations	1,786	682	2,468	6,077
Total interest expense	52,602	55,511	108,113	256,197
Other non-capital expense	-	-	-	-
Memorandum of Understanding	-	-	-	-
Capital Contribution	-	(198)	(198)	(6,991)
Amortization, issuance costs, debt	(5,195)	1,980	(3,216)	(13,318)
(Gain) loss on disposal of capital assets	-	(17)	(17)	322
Loss on impairment of capital assets	-	-	-	-
Water Residential Assistance Program	762	1,030	1,792	2,793
Legacy pension expense	-	-	-	13,915
Total Nonoperating (Revenue)/Expense	\$ 31,784	\$ 43,160	\$ 74,944	\$ 215,561

Totals may be off due to rounding

- ✓ Interest income on contractual obligation relates to the portion of the total GLWA debt obligation attributable to DWSD. This interest income offsets the total debt interest expense paid by GLWA on behalf of both entities monthly.
- ✓ Interest income DWSD shortfall represents interest from a budgetary shortfall loan from fiscal years 2016, 2017 and 2018 and is paid in accordance with the 2018 Memorandum of Understanding (MOU). This loan was paid in full in FY 2022.
- ✓ Investment earnings in this report are reflected at book value. Any differences between the Basic Financial report and Cash and Investment section of this Financial Report binder are due to accrued interest.

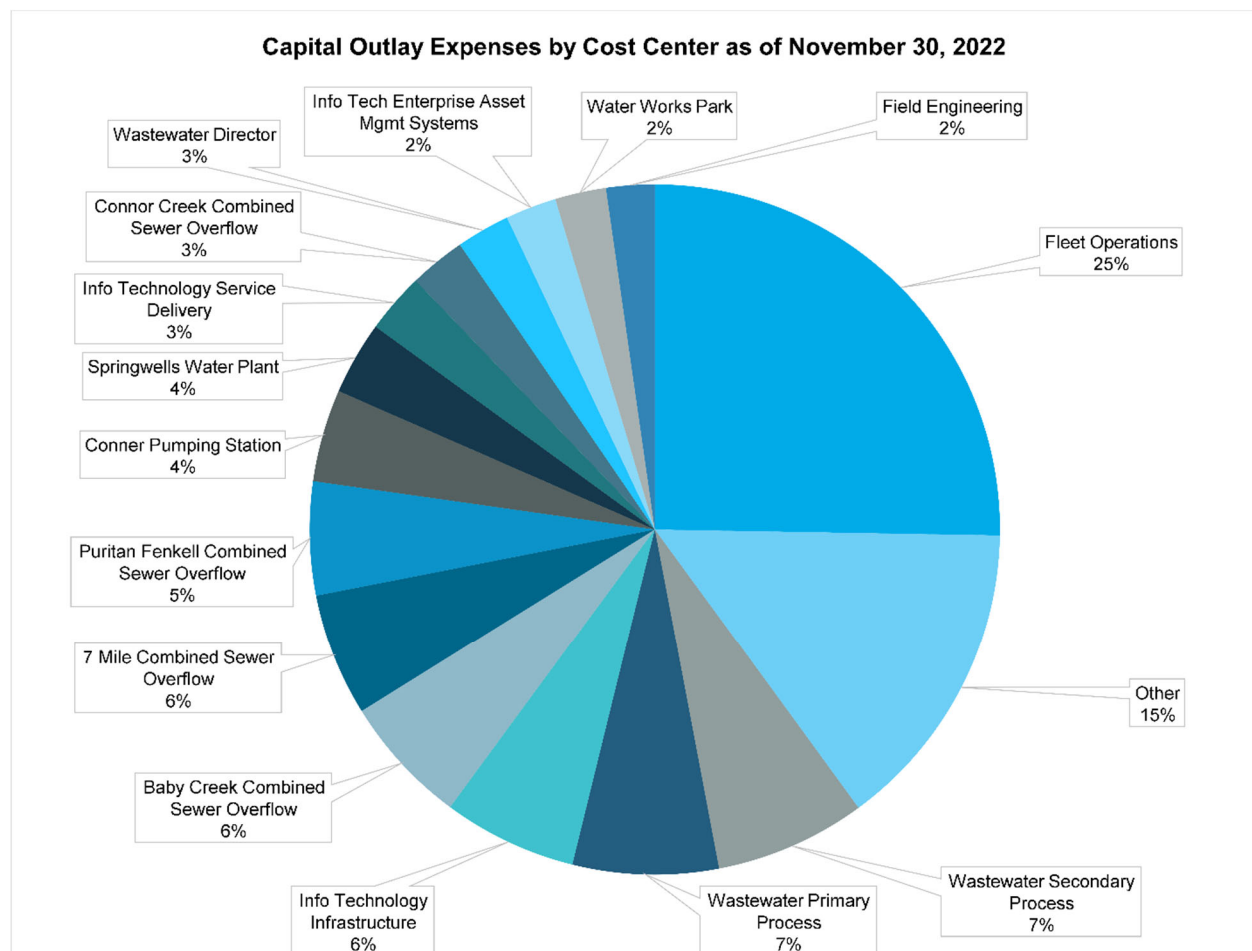
- ✓ Net (increase) decrease in fair value of investments consists of market value of investments and realized gain/loss on sale of investments. FY 2021 market value adjustments for Water and Sewer total \$1.5 million and \$1.0 million, respectively. FY 2022 market value adjustments for Water and Sewer total \$2.8 million and \$3.9 million, respectively. Any difference is due to realized gain or loss on investments.
- ✓ Interest expense, the largest category of nonoperating expenses, is made up of three components:
 - Bonded debt;
 - Lease obligation for the regional assets from the City of Detroit; and
 - Other obligations such as an obligation payable to the City of Detroit for an allocation BC Notes related to assumed DWSD liabilities; acquisition of raw water rights related to the KWA Pipeline.
- ✓ The FY 2022 capital contribution in Nonoperating (revenue) expense represents \$7.0 million from the Oakland Macomb Interceptor Drainage District for assets placed in service during FY 2022.

Financial Activity Charts

Chart 1 – Capital Outlay – Water and Sewer System Combined

Capital Outlay represents purchases of equipment, software, and small facility improvement projects. It *excludes* any capital investment which is included in the monthly construction work-in-progress report related to the Capital Improvement Program. Some items span several months so the entire cost may not have been incurred yet. In addition, items are capitalized only if they meet GLWA's capitalization policy.

Through November 30, 2022, total capital outlay spend is \$5.5 million. Following this chart is a sample list of projects and purchases from the total spend of \$5.5 million:



Note: Due to rounding totals may not equal 100%.

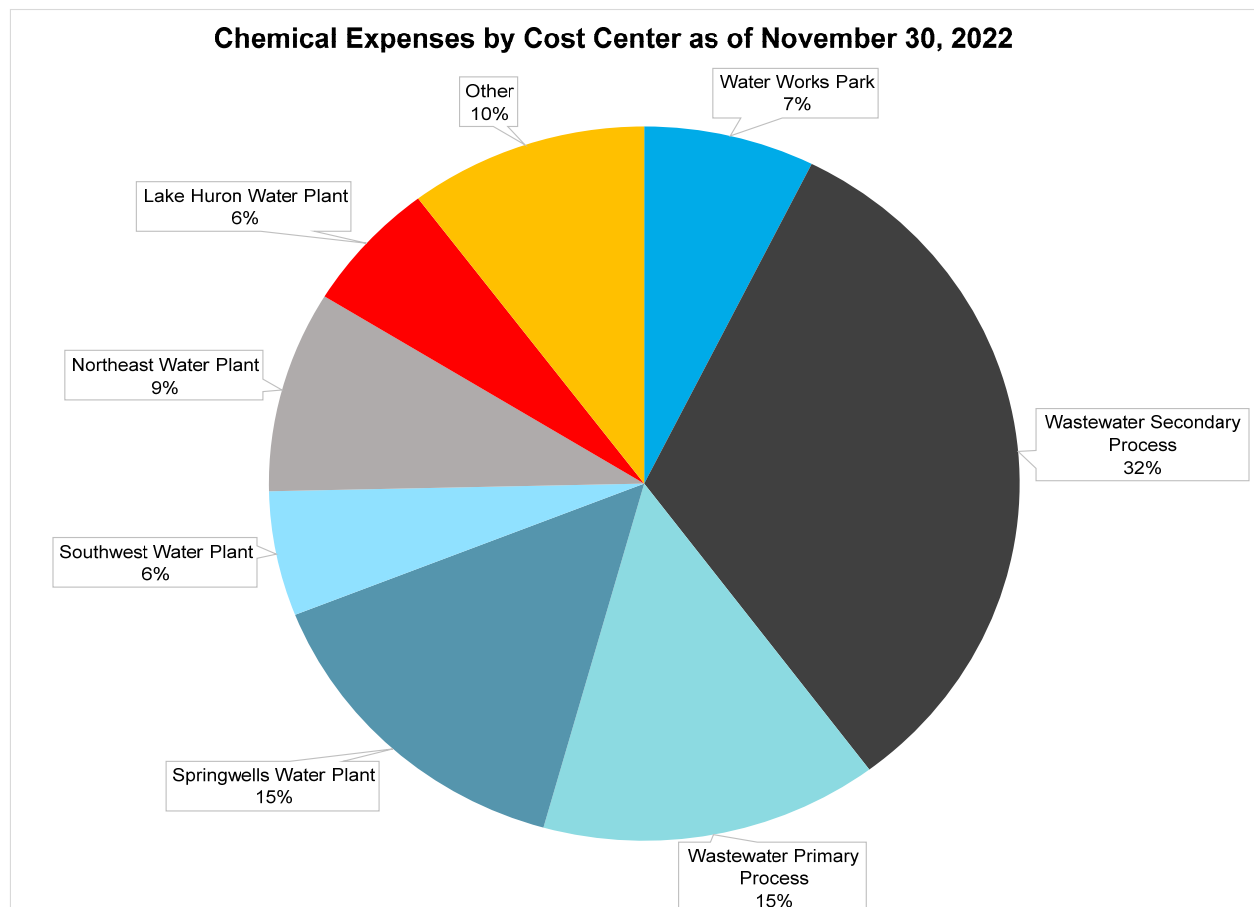
Water Operations: Overhead door repair (\$160k); metering pump repairs (\$57k); pumps (\$49k) and Southwest furniture (\$39k).

Wastewater Operations: CSO actuator replacement (\$472k); Water intake improvements (\$372k); Freud backup electric service installation (\$204k); Rotork replacements (\$188k); Scum hopper (\$153k); Pulsafeeders (\$121k); WRRF Electrical Buildings project (\$105k); Water Champ (\$97k); Terrain litter vacuum (\$95k); Flushing gate repair (\$88k); Gas detection unit (\$85k); Puritan-Fenkell courtyard accessibility improvements (\$84k); Flygt Mixer (\$73k); CSO PQM Meters (\$73k); VFD Replacement (\$63k); Gate valve actuators (\$50k); Electric actuator (\$50k) and Rotork units (\$42k).

Centralized & Administrative Facilities: Trucks and vehicles (\$1.4m); Cloud Backup Project (\$314k); Computer hardware (\$121k); Software (\$110k) and Pressure transmitter (\$87k).

Chart 2 – Chemical Expenses – Water and Sewer System Combined

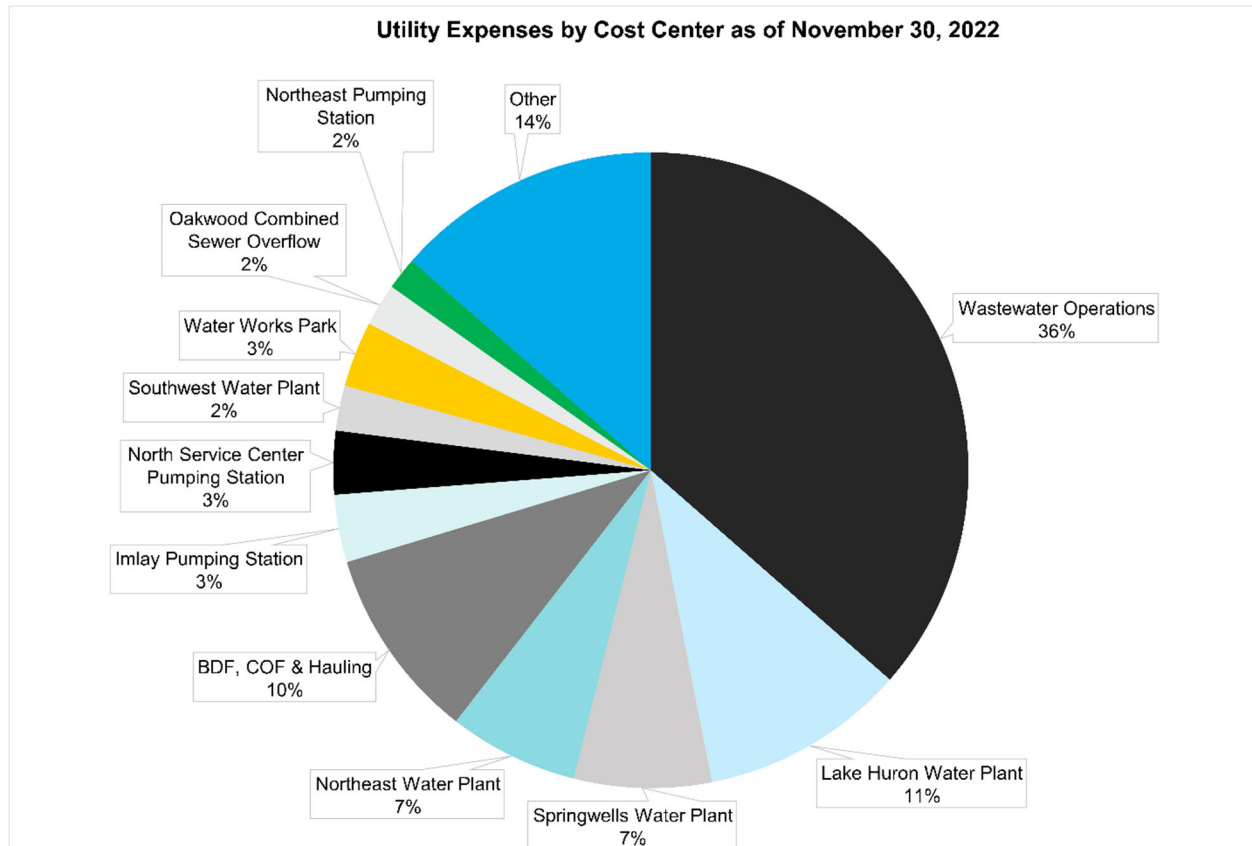
Chemical expenses are \$12.0 million through November 30, 2022. The allocation is shown in the chart below and remains consistent with prior periods.



Note: “Other” includes Combined Sewer Overflow (CSO), portions of the Wastewater process and two departments from Water. Due to rounding totals may not equal 100%.

Chart 3 – Utility Expenses – Water and Sewer System Combined

Utility expenses are \$31.1 million through November 30, 2022. The allocation is shown in the chart below and consistent with prior periods.



Note: Due to rounding totals may not equal 100%.



Financial Operations KPI

This key performance indicator shown in **Chart 1 – Bank Reconciliation Completion Status** below provides a measure of the progress made in the month-end close process which includes bank reconciliations with a completed status at month end. Through November 30, 2022 all reconciliations are up-to-date and complete.

There were no accounts inactivated in the general ledger accounts since October 2022.

Chart 1 – Bank Reconciliation Completion Status

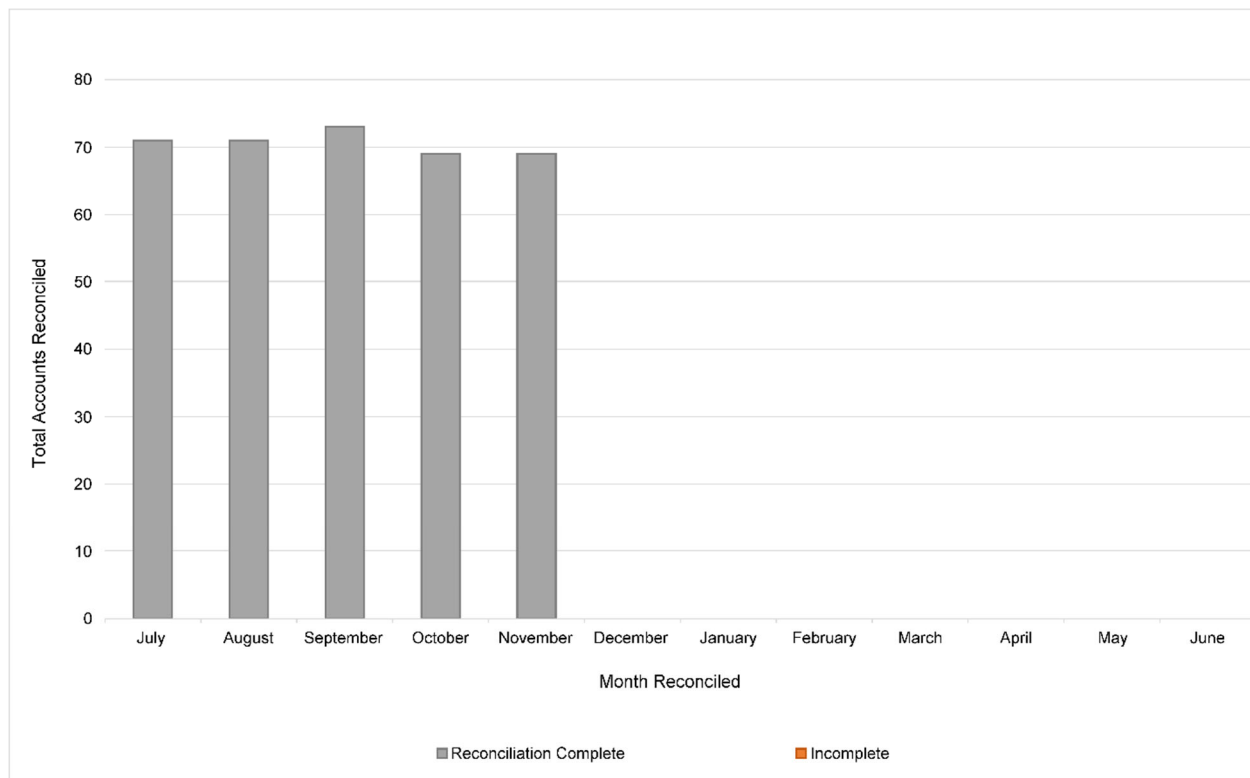


Table 1 – Fiscal Year 2023 GL Cash Account Rollforward

Total GL Cash accounts as of July 1, 2022	72
New GL Cash accounts	2
Inactivated GL Cash accounts	(5)
Total GL Cash accounts as of November 30, 2022	<u>69</u>

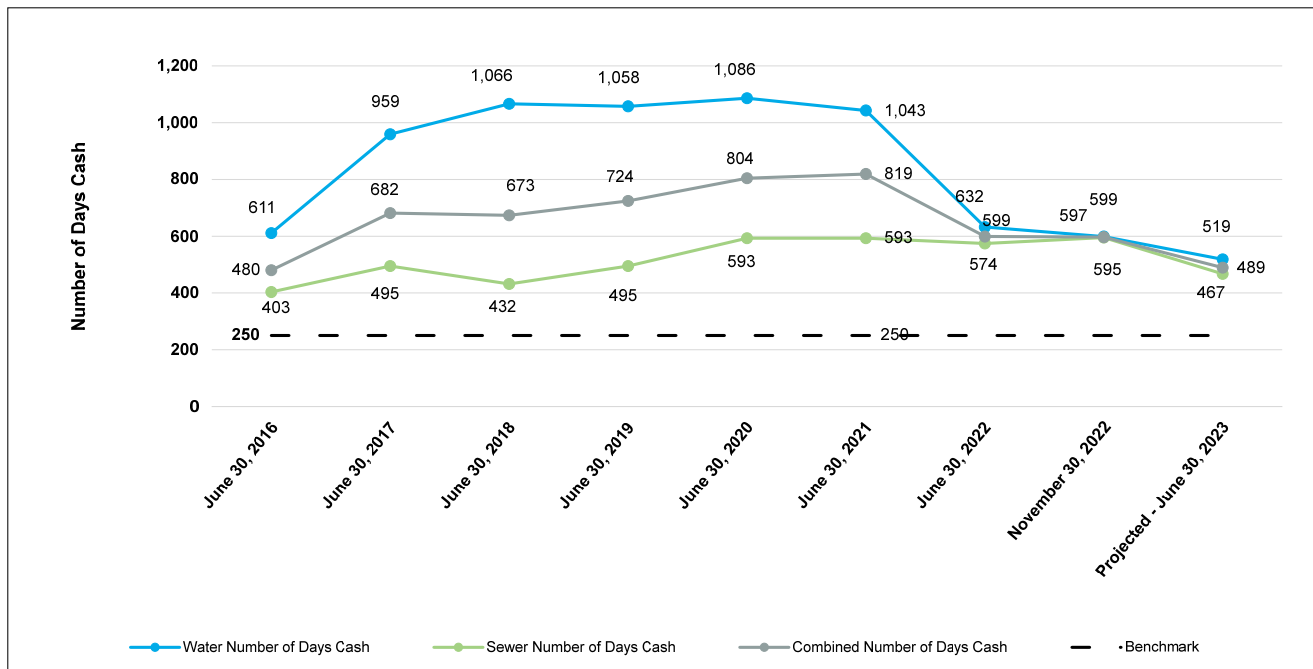


Financial Operations KPI - Liquidity

This key performance indicator shown in **Chart 1 – Historical Schedule of Days Cash on Hand – Liquidity – Regional System** and **Table 1 – Schedule of Days Cash on Hand – Liquidity – Regional System** below provides a measure of a utility's ability to meet expenses, cope with emergencies and navigate business interruptions. Liquidity is one of several key metrics monitored by bond rating agencies reflecting an organization's financial strength. A best practice benchmark for this key performance indicator is greater than 250 days cash on hand as shown by the dashed line in Chart 1 below.

Both GLWA Water and Sewer funds continue to exceed this target with Water at 599 and Sewer at 595 days cash on hand as of November 30, 2022. These balances remain strong for the regional system but did decrease in FY 2022 as I&E funds were used as planned to fund capital improvement projects. A September 2022 revenue bond transaction has replenished the construction bond fund and reduced the emphasis on I&E funding. The FY 2023 projection is calculated based on values from the GLWA FY 2023 – 2027 Budget & Five-Year Plan.

Chart 1 – Historical Schedule of Days Cash on Hand – Liquidity – Regional System



Note: The GLWA Annual Comprehensive Financial Reports are the source of all historic data referenced. Refer to these reports for detailed calculations by fiscal year.

Table 1 – Schedule of Days Cash on Hand – Liquidity – Regional System

	<u>June 30, 2022</u>	<u>November 30, 2022</u>	<u>Projected June 30, 2023</u>
Water Fund			
Cash and Investments - Unrestricted	\$ 238,691,000	\$ 236,205,000	\$ 205,800,000
Operating Expense			
Operating Expense (a)	\$ 264,579,000	\$ 118,214,000	\$ 283,714,000
Less: Depreciation (a)	(123,196,000)	(56,375,000)	(135,300,000)
Less: Amortization of Intangible Asset (a)	(3,567,000)	(1,486,000)	(3,567,000)
Net Operating Expense	\$ 137,816,000	\$ 60,353,000	\$ 144,848,000
Operating Expense per Day	\$ 378,000	\$ 394,000	\$ 397,000
Days Cash			
Number of Days Cash	632	599	519
Sewage Disposal Fund			
Cash and Investments - Unrestricted	\$ 294,174,000	\$ 315,759,000	\$ 249,400,000
Operating Expense			
Operating Expense (a)	\$ 345,372,000	\$ 148,593,000	\$ 356,623,000
Less: Depreciation (a)	(158,014,000)	(67,417,000)	(161,800,000)
Less: Amortization of Intangible Asset (a)	(440,000)	-	-
Net Operating Expense	\$ 186,919,000	\$ 81,176,000	\$ 194,823,000
Operating Expense per Day	\$ 512,000	\$ 531,000	\$ 534,000
Days Cash			
Number of Days Cash	574	595	467
Combined			
Cash and Investments - Unrestricted	\$ 532,865,000	\$ 551,963,000	\$ 455,200,000
Operating Expense			
Operating Expense (a)	\$ 609,951,000	\$ 266,807,000	\$ 640,337,000
Less: Depreciation (a)	(281,210,000)	(123,792,000)	(297,100,000)
Less: Amortization of Intangible Asset (a)	(4,006,000)	(1,486,000)	(3,567,000)
Net Operating Expense	\$ 324,735,000	\$ 141,529,000	\$ 339,670,000
Operating Expense per Day	\$ 890,000	\$ 925,000	\$ 931,000
Days Cash			
Number of Days Cash	599	597	489
<i>Totals may be off due to rounding</i>			

(a) Current year expenses are expressed as a proration of the annual budget for the purposes of this metric.



The monthly Budget to Financial Statements Crosswalk includes the following.

1. Crosswalk Budget Basis to Financial Reporting Basis
2. Explanatory Notes for Crosswalk

Purpose for Crosswalk: The Great Lakes Water Authority establishes a “Revenue Requirements” budget for the purposes of establishing charges for services. The financial report is prepared in accordance with Generally Accepted Accounting Policies for enterprise funds of a local government. Because the budget and the financial statements are prepared using different basis of accounting, the crosswalk reconciles the “Net Difference” to the “Increase/(Decrease) in Net Position” in Table 2 of the Basic Financial Statements in the monthly Financial Report.

The Authority has a Water Master Bond Ordinance and a Sewer Master Bond Ordinance (MBO). The Ordinances provide additional security for payment of the bonds. All revenues of the system are deposited into Revenue Receipts Funds which are held in trust by a trustee. The cash is moved to multiple bank accounts monthly based on 1/12th of the budget as defined in the MBO (“the flow of funds”) for all revenue requirements except for the Debt Service monthly transfer. The Debt Service monthly requirement is computed by the trustee, U.S. Bank. The cash transfer for debt is net of investment earnings that remain in the debt service accounts to be used for debt service.

The budget is prepared on a modified cash basis. The revenue requirements are determined based upon the cash needed to meet the financial commitments as required by the Master Bond Ordinance.

- Operation & Maintenance (O&M) expenses based on an accrual basis
- O&M Legacy Pension Allocation (includes administrative fee) and Accelerated Legacy Pension Allocation (includes B&C notes obligation) based on a cash basis
- Debt Service Allocation based on a cash set aside basis to provide the cash for the debt payments on the due dates
- Lease payments based on a cash basis
- Water Residential Assistance Program based on a percentage of budgeted revenue
- Regional System Improvement & Extension Fund Allocation on a cash basis

Budget: In Table 1A and Table 1B of the Budget to Actual Analysis the ‘Revenues’ section is the accrual basis revenues that are available to meet the ‘Revenue Requirements’. The ‘Revenue Requirements’ section budget column indicates the annual cash transfers to be made.

Financial Reporting: The Authority's financial statements are prepared in conformity with generally accepted accounting principles (GAAP) as applied to government units. The Authority maintains its records on the accrual basis of accounting to conform to GAAP. Revenues from operations, investments and other sources are recorded when earned. Expenses (including depreciation) are recorded when incurred.

Table 1 – Crosswalk Budget Basis to Financial Reporting Basis provides a reconciliation of the “Net Difference” in Table 1A and Table 1B in the Budget to Actual Analysis report to the “Increase/(Decrease) in Net Position” in Table 2 of the Basic Financial Statements in this monthly Financial Report. Explanatory notes follow the Crosswalk shown in Table 1 below.

Table 1 – Crosswalk Budget Basis to Financial Reporting Basis (\$000)
For the Four Months Ended November 30, 2022

	Water	Sewer	Total
Net Revenue Requirement Budget Variance (a)	\$ 4,842	\$ 160	\$ 5,002
Budgetary categories adjustments to financial reporting basis			
Pension delayed accounting election adjustments			
Current year pension transfers/payments recorded as deferral (c)	4,767	8,531	13,298
Prior year pension contribution accounted for in current year (d)	-	-	-
Administrative prepaid adjustment (e)	-	-	-
Debt service (f)	29,821	48,111	77,932
Accelerated pension B&C notes obligation portion (g)	85	192	277
Regional System lease (h)	2,349	2,871	5,220
Right to use lease - warehouse (h)		151	151
WRAP (i)	(24)	(32)	(56)
DWSD short term allocation (j)	-	-	-
Improvement & Extension Fund transfers (j)	11,864	11,698	23,562
Nonbudgeted financial reporting categories adjustments			
Depreciation and amortization (k)	(52,756)	(67,669)	(120,425)
Amortization - debt related (k)	5,195	(1,980)	3,215
Other nonoperating income (k)	-	-	-
Other nonoperating expense (k)	-	-	-
Gain(loss) on disposal of capital assets (k)	-	17	17
Raw water rights obligation (l)	1,173	-	1,173
Investment earnings for construction fund (m)	1,551	1,658	3,209
Subscription Based Information Tech Arrangements (k)	-	-	-
Interest on DWSD note receivable (n)	-	-	-
Investment earnings unrealized gain/loss (o)	2,807	3,860	6,667
Improvement & extension fund operating expenses (p)	(875)	(2,289)	(3,163)
Capital Contribution (q)	-	198	198
Net Position Increase/(Decrease) per Financial Statements (b)	\$ 10,799	\$ 5,477	\$ 16,277

Table 2 - Explanatory Notes for Crosswalk

- (a) Source: Budget to Actual Table 1A and Table 1B in Monthly Financial Report
- (b) Source: Basic Financial Statements Table 2 in Monthly Financial Report
- (c) Current year pension payments are an expense for budget purposes but not for financial reporting purposes.

- (d) Prior year pension payments are accounted for in the current year financial statements.
- (e) The administrative fee is part of the O&M Legacy Pension shown as an expense for budget purposes. For financial reporting purposes part of the administrative fee is considered prepaid based on the prior year General Retirement System audit information and therefore not an expense for the current year financial reporting. The prepaid portion is adjusted in June each year.
- (f) Debt service (principal and interest payments) are shown as an expense for budget purposes. Most of the adjustment relates to principal payments which are not an expense for financial reporting purposes. A portion of the adjustment relates to interest expense variances on state revolving fund debt due to the timing of payment draws. The cash set aside basis for interest expense generally is the same as the accrual basis for financial reporting.
- (g) The accelerated pension payment includes the obligation payable for the B&C notes. The pension portion is included in item (c) above. This adjustment relates to the B&C note obligation payments. The principal and interest cash basis payments are treated as an expense for budget purposes. The principal portion is not an expense for financial reporting purposes. For financial reporting purposes interest is expensed on an accrual basis which is different from the cash basis.
- (h) The lease payment is included as an expense for budget and includes both principal and interest payments. Most of the adjustment relates to the principal payments which are not an expense for financial reporting purposes. A portion of the adjustment relates to interest expense which is recorded on an accrual basis for financial reporting which is different from the cash basis.
- (i) WRAP is shown as an expense for budget purposes. For financial reporting purposes the expense is not recognized until the funds have been transferred to the WRAP administrator. The adjustment shown is the amount of current year transfers that have not been transferred to the WRAP administrator. Note that there are funds from the prior year that have not been transferred to the WRAP administrator.
- (j) The DWSD short term allocation and Improvement & Extension Fund transfers are shown as an expense for budget purposes but not for financial reporting purposes.
- (k) Certain nonoperating income and expenses are reported in financial statements only.

- (l) The water service contract with Flint includes a license for raw water rights which has been recorded as an asset and liability by the Authority. The contract provides for a credit to Flint as Flint satisfies its monthly bond payment obligation to KWA. This KWA credit is treated as a noncash payment of principal and interest on the liability recorded for the raw water rights. For budget, wholesale customer charges are net of the anticipated KWA credits to Flint as that is the cash that will be received and available to meet the budgeted revenue requirements. For financial reporting purposes the Flint wholesale charges are recorded as the total amount billed. When the KWA credit is issued, the receivable from Flint is reduced and the principal and interest payments on the liability for the raw water rights are recorded as a noncash transaction. Most of the adjustment shown relates to the principal reduction made for the credits applied which are not an expense for financial reporting basis.
- (m) Investment earnings from the construction fund are not shown as revenue in the budget and are shown as revenue in the financial statements. Construction fund investment earnings are excluded from the definition of revenue for budget purposes as they are used for construction costs and are not used to meet the revenue requirements in the budget.
- (n) Interest on a DWSD note receivable is budgeted as part of the Sewer improvement and extension fund and is transferred directly to that fund as payments are made. DWSD does not currently have a note receivable due to GLWA.
- (o) Unrealized gains and losses are recorded annually as required for financial reporting purposes but do not reflect actual investment earnings and are not included in cash basis reporting.
- (p) The Water Improvement and Extension fund and the Sewer Improvement and Extension fund reflect certain expenses relating to repairs paid for through the Water and Sewer Improvement and Extension funds, respectively. These are consolidated expenses for financial reporting purposes but are not reflected in the current Operations and Maintenance budget expenses.



The Monthly Capital Improvement Plan Financial Summary includes the following.

1. Water System Capital Improvement Plan Spend Incurred to date
2. Sewer System Capital Improvement Plan Spend Incurred to date

Capital Improvement Plan Financial Summary

Great Lakes Water Authority (GLWA) capital improvement projects generally span two or more years due to size and complexity. Therefore, the GLWA Board of Directors (Board) adopts a five-year capital improvement plan (CIP). The CIP is a five-year, rolling plan which is updated annually and formally adopted by the GLWA Board of Directors. In addition, the Board of Directors adopts a capital spending ratio assumption (SRA) which allows the realities of capital program delivery to align with the financial plan. The SRA is an analytical approach to bridge the total dollar amount of projects in the CIP with what can realistically be spent due to limitations beyond GLWA's control and/or delayed for nonbudgetary reasons. Those limitations, whether financial or non-financial, necessitate the SRA for budgetary purposes, despite the prioritization established.

This report presents quarterly and monthly CIP spending against the prorated CIP in total and the CIP adjusted for the SRA. The prorated CIP is calculated by dividing the total fiscal year 2023 board-approved CIP plan by twelve equal months. It should be noted that for operational purposes, GLWA utilizes Primavera P6 for refined monthly projections for cash management and project management.

GLWA completed a bond transaction of \$450 million in September 2022 to support water system and sewage disposal system improvements. These funds along with I&E and SRF low-interest loans will fund the capital program going forward.

Capital spend reflects a noticeable variance from budgeted CIP for both the water and sewer funds. For the purposes of this metric, we compare actual spend with the Board-approved budget. For the purposes of managing the financial plan, budget amendments are made to align spending with resources available. First quarter FY 2023 budget amendments were approved by the Board on October 26, 2022, to help achieve that financial alignment.

Chart 1 – Water System Capital Improvement Plan Spend Incurred to Date

As of November 2022, the water system incurred over \$87 million of construction costs to date. This spend represents 108% of the Board-approved FY 2023 CIP plan and 135% of the original, Board-approved spend rate adjusted.

Economic factors affecting the CIP spend are considered by the Board quarterly at which time the Board may amend the planned spend rate adjusted.

Effective July 2022, the Board took action to amend the spend rate adjusted for the water system from 80% to 100%. Current water system spend represents 108% of that Board-approved spend rate adjusted.

Chart 1 – Water System Capital Improvement Plan Spend Incurred to Date – Spend Rate Adjusted

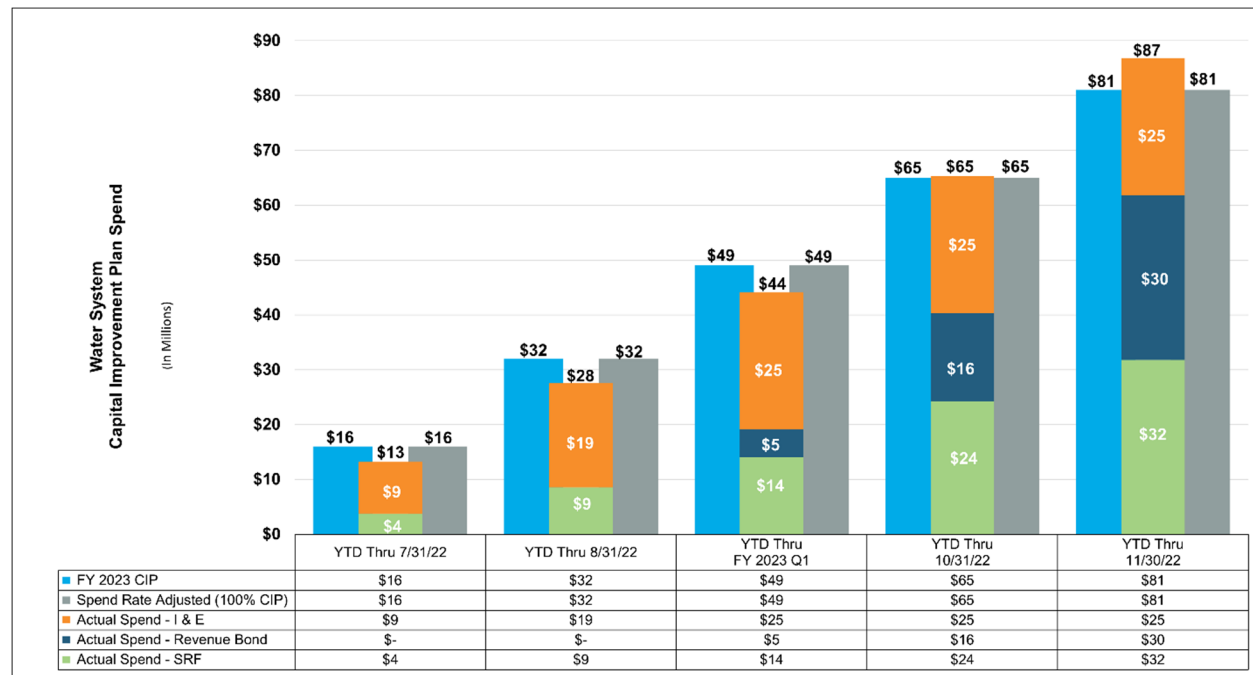


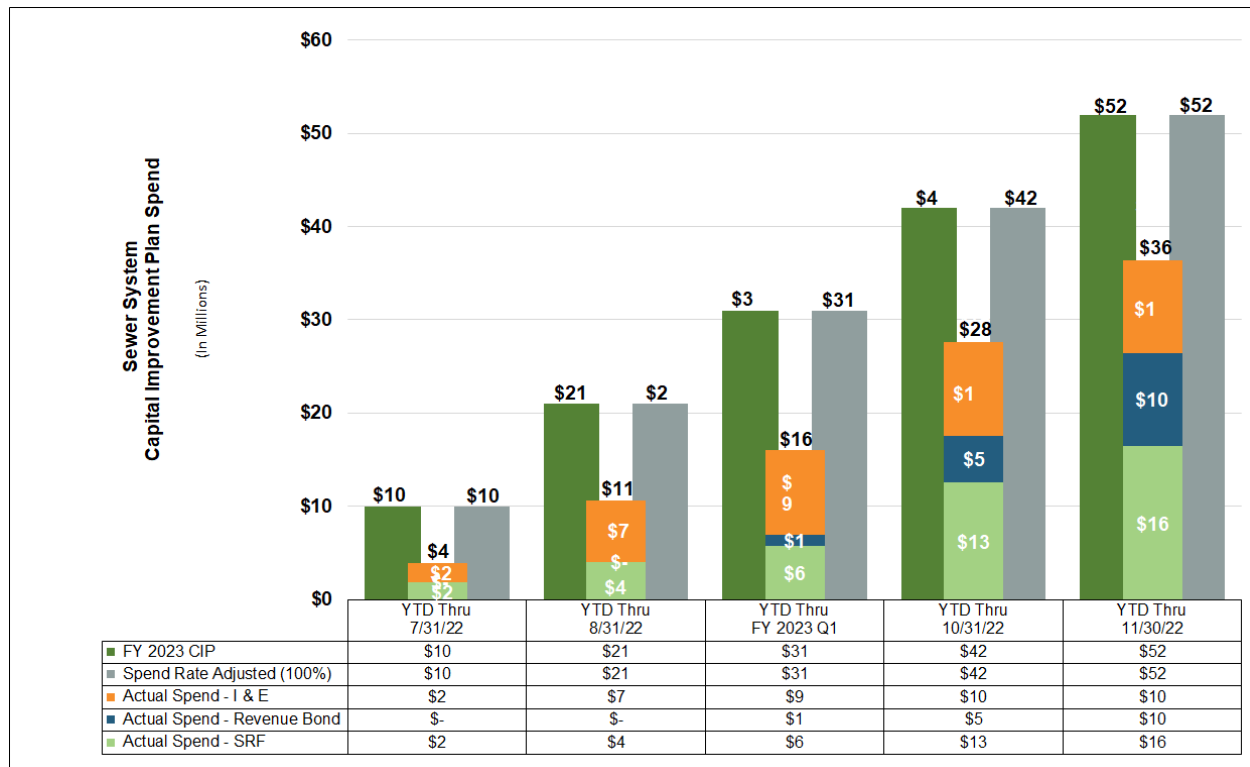
Chart 2 – Sewer System Capital Improvement Plan Spend Incurred to Date

As of November 2022, the Sewer system incurred nearly \$36 million of construction costs to date. This spend represents 69% of the Board-approved FY 2023 CIP plan and 92% of the original, Board-approved spend rate adjusted.

Economic factors affecting the CIP spend are considered by the Board quarterly at which time the Board may amend the planned spend rate adjusted.

Effective July 2022, the Board took action to amend the spend rate adjusted for the sewer system from 75% to 100%. Current sewer system spend represents 69% of that Board-approved spend rate adjusted.

Chart 2 – Sewer System Capital Improvement Plan Spend Incurred to Date – Spend Rate Adjusted





This report includes the following.

1. Master Bond Ordinance (MBO) Required Transfers to Accounts Held by GLWA
2. Master Bond Ordinance (MBO) Required Transfers to Accounts Held by DWSD

MBO Transfers to Accounts Held by GLWA

GLWA Transfers: The Treasury team completes required MBO transfers on the first business day of each month. These transfers are completed in accordance with the Great Lakes Water Authority (GLWA) and Detroit Water & Sewerage Department (DWSD) budgets as approved and adopted by the GLWA Board of Directors and DWSD Board of Water Commissioners annually.

Monthly transfers for Operations & Maintenance (O&M), Pension, and Water Residential Assistance Program (WRAP) are one-twelfth of the annual, budgeted amount. Budget stabilization should not require additional funding due to new, baseline funding levels established as part of the June 2018 Memorandum of Understanding but is included to reflect historical activity. If there are transfers to the Extraordinary Repair & Replacement (ER&R) fund they would be completed annually based on budget and year-end fund status.

Table 1 – GLWA FY 2023 Water MBO Transfers reflects the required transfers for FY 2023 completed through November 1, 2022. MBO transfers for water totaling \$68.4 million have been transferred to GLWA accounts.

Table 2 – GLWA FY 2023 Sewer MBO Transfers reflects the required transfers for FY 2023 completed through November 1, 2022. MBO transfers for sewer totaling \$91.3 million have been transferred to GLWA accounts.

Table 3 – GLWA MBO Transfer History reflects historical transfers for FY 2016 through FY 2023 to date.

Table 1 – GLWA FY 2023 Water MBO Transfers

WATER							
	<u>Operations & Maintenance</u>	<u>Pension Sub Account</u>	<u>Pension Obligation</u>	<u>WRAP</u>	<u>Budget Stabilization (For Benefit of DWSD)</u>	<u>Extraordinary Repair & Replacement (ER&R)</u>	<u>Total Water</u>
FY 2023							
July 2022	\$ 12,070,642	\$504,000	\$891,308	\$200,975	-	-	\$13,666,925
August 2022	\$ 12,070,642	\$504,000	\$891,308	\$200,975	-	-	13,666,925
September 2022	\$ 12,070,642	\$504,000	\$891,308	\$200,975	-	-	13,666,925
October 2022	\$ 12,070,642	\$504,000	\$891,308	\$223,209	-	-	13,689,159
November 2022	\$ 12,070,642	\$504,000	\$891,308	\$223,209	-	-	13,689,159
Total FY 2023	\$ 60,353,210	\$ 2,520,000	\$ 4,456,540	\$ 1,049,343	\$ -	\$ -	\$68,379,093

Table 2 – GLWA FY 2023 Sewer MBO Transfers

SEWER							
	<u>Operations & Maintenance</u>	<u>Pension Sub Account</u>	<u>Pension Obligation</u>	<u>WRAP</u>	<u>Budget Stabilization (For Benefit of DWSD)</u>	<u>Extraordinary Repair & Replacement (ER&R)</u>	<u>Total Sewer</u>
FY 2023							
July 2022	\$ 15,337,717	\$902,000	\$1,223,950	\$321,925	-	-	\$17,785,592
August 2022	\$ 15,337,717	\$902,000	\$1,223,950	\$321,925	-	-	17,785,592
September 2022	\$ 15,337,717	\$902,000	\$1,223,950	\$321,925	-	-	17,785,592
October 2022	\$ 16,534,372	\$902,000	\$1,223,950	\$300,892	-	-	18,961,214
November 2022	\$ 16,534,372	\$902,000	\$1,223,950	\$300,892	-	-	18,961,214
Total FY 2023	\$ 79,081,895	\$4,510,000	\$6,119,750	\$1,567,559	\$ -	\$ -	\$91,279,204

Table 3 – GLWA MBO Transfer History

GLWA MBO Transfer History							
WATER							
	<u>Operations & Maintenance</u>	<u>Pension Sub Account</u>	<u>Pension Obligation</u>	<u>WRAP</u>	<u>Budget Stabilization (For Benefit of DWSD)</u>	<u>Extraordinary Repair & Replacement (ER&R)</u>	<u>Total Water</u>
Total FY 2016	\$71,052,000	\$6,037,100	\$10,297,200	\$1,983,300	\$2,326,900	\$606,000	\$92,302,500
Total FY 2017	111,879,600	6,037,200	10,297,200	2,077,200	360,000	-	130,651,200
Total FY 2018	121,562,604	6,048,000	10,695,696	2,159,400	-	-	140,465,700
Total FY 2019	121,562,604	6,048,000	10,695,696	2,061,000	-	-	140,367,300
Total FY 2020	126,840,204	6,048,000	10,695,683	1,980,804	-	-	145,564,691
Total FY 2021	134,127,300	6,048,000	10,695,700	2,324,200	-	-	153,195,200
Total FY 2022	143,933,800	6,048,000	10,695,700	2,376,600	-	-	163,054,100
Total FY 2023 (5 months)	60,353,210	2,520,000	4,456,540	1,049,343	-	-	68,379,093
Life to Date	\$891,311,322	\$44,834,300	\$78,529,415	\$16,011,847	\$2,686,900	\$606,000	\$1,033,979,784
SEWER							
	<u>Operations & Maintenance</u>	<u>Pension Sub Account</u>	<u>Pension Obligation</u>	<u>WRAP</u>	<u>Budget Stabilization (For Benefit of DWSD)</u>	<u>Extraordinary Repair & Replacement (ER&R)</u>	<u>Total Sewer</u>
Total FY 2016	\$100,865,600	\$10,838,400	\$14,025,800	\$2,523,400	\$5,591,700	\$779,600	\$134,624,500
Total FY 2017	175,858,800	10,838,400	14,026,800	2,654,400	2,654,400	-	206,032,800
Total FY 2018	191,079,396	10,824,000	14,687,496	2,760,804	-	-	219,351,696
Total FY 2019	191,079,396	10,824,000	14,687,496	2,870,992	-	-	219,461,884
Total FY 2020	181,925,800	10,824,000	14,687,517	2,887,300	-	-	210,324,617
Total FY 2021	182,296,000	10,824,000	14,687,500	3,764,300	-	-	211,571,800
Total FY 2022	191,908,600	10,824,000	14,687,400	3,868,700	-	-	221,288,700
Total FY 2023 (5 months)	79,081,895	4,510,000	6,119,750	1,567,559	-	-	91,279,204
Life to Date	\$1,294,095,487	\$80,306,800	\$107,609,759	\$22,897,455	\$8,246,100	\$779,600	\$1,513,935,201

MBO Required and Lease Payment Transfers to DWSD

DWSD Transfers: The GLWA Treasury team completes the required MBO transfers on the first business day of each month. These transfers are completed in accordance with the GLWA and DWSD budgets as approved and adopted by the GLWA Board of Directors and DWSD Board of Water Commissioners annually. Transfers are coordinated with other areas of GLWA Financial Services in advance of the first business day of each month. GLWA Treasury sends confirmation of transfers made to DWSD Treasury.

Monthly transfers for O&M and O&M Pension are one-twelfth of the annual, budgeted amount. The annual lease payment, as stated in the Water & Sewer Lease Agreements, is \$22,500,000 for Water and \$27,500,000 for Sewer. The monthly lease transfer is one-twelfth of the amount as stated in the Lease agreements unless otherwise designated by DWSD. Per Section 3.5 of the Lease, the Lease payment may be used for (a) bond principal and interest for Local System Improvements, (b) bond principal and interest for the City's share of common-to-all System Improvements, and (c) Local System improvements.

Table 4 – DWSD FY 2023 Water MBO Transfers reflects the required transfers for FY 2023 completed through November 1, 2022. MBO transfers for Water totaling \$24.2 million have been transferred to accounts held by DWSD. For FY 2023, DWSD has requested that \$2,922,100 of the lease payment be utilized to offset a portion of debt service.

Table 5 – DWSD FY 2023 Sewer MBO Transfers reflects the required transfers for FY 2023 completed through November 1, 2022. MBO transfers for Sewer totaling \$35.4 million have been transferred to accounts held by DWSD. For FY 2023, DWSD has requested that \$4,388,300 of the lease payment be utilized to offset a portion of debt service.

Table 6 – DWSD Water MBO and Lease Payment Transfer History reflects historical transfers for FY 2016 through FY 2023 to date.

Table 7 – DWSD Sewer MBO and Lease Payment Transfer History reflects historical transfers for FY 2016 through FY 2023 to date.

Table 4 – DWSD FY 2023 Water MBO Transfers

WATER				
	Operations & <u>Maintenance</u>	<u>Pension</u>	Lease Payment <u>(I&E Fund)</u>	<u>Total Water</u>
FY 2023				
July 2022	\$2,540,833	\$356,000	\$1,150,750	\$4,047,583
August 2022	2,540,833	356,000	1,150,750	4,047,583
September 2022	2,540,833	356,000	1,150,750	4,047,583
October 2022	3,884,345	356,000	1,791,739	6,032,084
November 2022	3,884,345	356,000	1,791,739	6,032,084
Total FY 2023	\$15,391,189	\$1,780,000	\$7,035,728	\$24,206,917

Table 5 – DWSD FY 2023 Sewer MBO Transfers

SEWER				
	Operations & <u>Maintenance</u>	<u>Pension</u>	Lease Payment <u>(I&E Fund)</u>	<u>Total Sewer</u>
FY 2023				
July 2022	\$5,282,500	\$238,000	\$2,291,667	\$7,812,167
August 2022	5,282,500	238,000	2,291,667	7,812,167
September 2022	5,282,500	238,000	2,291,667	7,812,167
October 2022	3,949,878	238,000	1,804,078	5,991,956
November 2022	3,949,878	238,000	1,804,078	5,991,956
Total FY 2023	\$23,747,256	\$1,190,000	\$10,483,157	\$35,420,413

Table 6 – DWSD Water MBO and Lease Payment Transfer History

Transfers to DWSD				
WATER				
	Operations & Maintenance	Operations & Maintenance Pension	Lease Payment (I&E Fund)	Total Water
FY 2016 *				
MBO/Lease Requirement	\$26,185,600	\$4,262,700	\$22,500,000	\$52,948,300
Offset to Debt Service	-	-	(2,326,900)	(2,326,900)
Net MBO Transfer	26,185,600	4,262,700	20,173,100	50,621,400
FY 2017				
MBO/Lease Requirement	33,596,400	4,262,400	22,500,000	60,358,800
Offset to Debt Service	-	-	-	-
Net MBO Transfer	33,596,400	4,262,400	22,500,000	60,358,800
FY 2018				
MBO/Lease Requirement	35,059,704	4,272,000	22,500,000	61,831,704
Offset to Debt Service	-	-	(1,875,000)	(1,875,000)
Net MBO Transfer	35,059,704	4,272,000	20,625,000	59,956,704
FY 2019				
MBO/Lease Requirement	35,484,300	4,272,000	22,500,000	62,256,300
Offset to Debt Service	-	-	(3,972,200)	(3,972,200)
Net MBO Transfer	35,484,300	4,272,000	18,527,800	58,284,100
FY 2020				
MBO/Lease Requirement	34,662,400	4,272,000	22,500,000	61,434,400
Offset to Debt Service	-	-	(3,548,000)	(3,548,000)
Net MBO Transfer	34,662,400	4,272,000	18,952,000	57,886,400
FY 2021				
MBO/Lease Requirement	35,833,900	4,272,000	22,500,000	62,605,900
Offset to Debt Service	-	-	(8,278,300)	(8,278,300)
Net MBO Transfer	35,833,900	4,272,000	14,221,700	54,327,600
FY 2022				
MBO/Lease Requirement	29,989,000	4,272,000	22,500,000	56,761,000
Offset to Debt Service	-	-	(8,925,400)	(8,925,400)
Net MBO Transfer	29,989,000	4,272,000	13,574,600	47,835,600
FY 2023 (5 months)				
MBO/Lease Requirement	15,391,189	1,780,000	9,375,000	26,546,189
Offset to Debt Service	-	-	(2,339,272)	(2,339,272)
Net MBO Transfer	15,391,189	1,780,000	7,035,728	24,206,917
Life-to-Date				
MBO/Lease Requirement	246,202,493	31,665,100	166,875,000	444,742,593
Offsets	-	-	(31,265,072)	(31,265,072)
Total Water	246,202,493	31,665,100	135,609,928	413,477,521

Table 7 – DWSD Sewer MBO and Lease Payment Transfer History

	SEWER			
	Operations & Maintenance	Operations & Maintenance Pension	Lease Payment (I&E Fund)	Total Sewer
FY 2016 *				
MBO/Lease Requirement	\$19,774,300	\$2,861,800	\$27,500,000	\$50,136,100
Offset to Debt Service	-	-	(19,991,500)	(19,991,500)
Total MBO Transfer	19,774,300	2,861,800	7,508,500	30,144,600
FY 2017				
MBO/Lease Requirement	41,535,600	2,862,000	27,500,000	71,897,600
Offset to Debt Service	-	-	-	-
Total MBO Transfer	41,535,600	2,862,000	27,500,000	71,897,600
FY 2018				
MBO/Lease Requirement	60,517,992	2,856,000	27,500,000	90,873,992
Offset to Debt Service	-	-	(9,166,664)	(9,166,664)
Total MBO Transfer	60,517,992	2,856,000	18,333,336	81,707,328
FY 2019				
MBO/Lease Requirement	56,767,920	2,856,000	27,500,000	87,123,920
Offset to Debt Service	-	-	(4,415,000)	(4,415,000)
Total MBO Transfer	56,767,920	2,856,000	23,085,000	82,708,920
FY 2020				
MBO/Lease Requirement	62,343,500	2,856,000	27,500,000	92,699,500
Offset to address shortfall	(7,100,000)	-	-	(7,100,000)
Offset to Debt Service	-	-	(5,032,700)	(5,032,700)
Total MBO Transfer	55,243,500	2,856,000	22,467,300	80,566,800
FY 2021				
MBO/Lease Requirement	69,915,700	2,856,000	27,500,000	100,271,700
Offset to Debt Service	-	-	(3,257,200)	(3,257,200)
Total MBO Transfer	69,915,700	2,856,000	24,242,800	97,014,500
FY 2022				
MBO/Lease Requirement	61,301,000	2,856,000	27,500,000	90,735,453
Offset to Debt Service	-	-	(5,529,297)	(4,607,750)
Total MBO Transfer	61,301,000	2,856,000	21,970,703	86,127,703
FY 2023 (5 months)				
MBO/Lease Requirement	23,747,256	1,190,000	11,458,333	36,395,589
Offset to Debt Service	-	-	(975,176)	(975,176)
Total MBO Transfer	23,747,256	1,190,000	10,483,157	35,420,413
Life-to-Date				
MBO/Lease Requirement	395,903,268	21,193,800	203,958,333	620,133,854
Offsets	(7,100,000)	-	(48,367,537)	(54,545,990)
Total Sewer	388,803,268	21,193,800	155,590,796	565,587,864

* Note: FY 2016 lease transfer amounts shown do not include prepayment on the lease amount for the 6 months period before bifurcation.



This report includes the following:

1. Monthly Cash Balances Compared to Investment Income
2. Cash Balance Detail

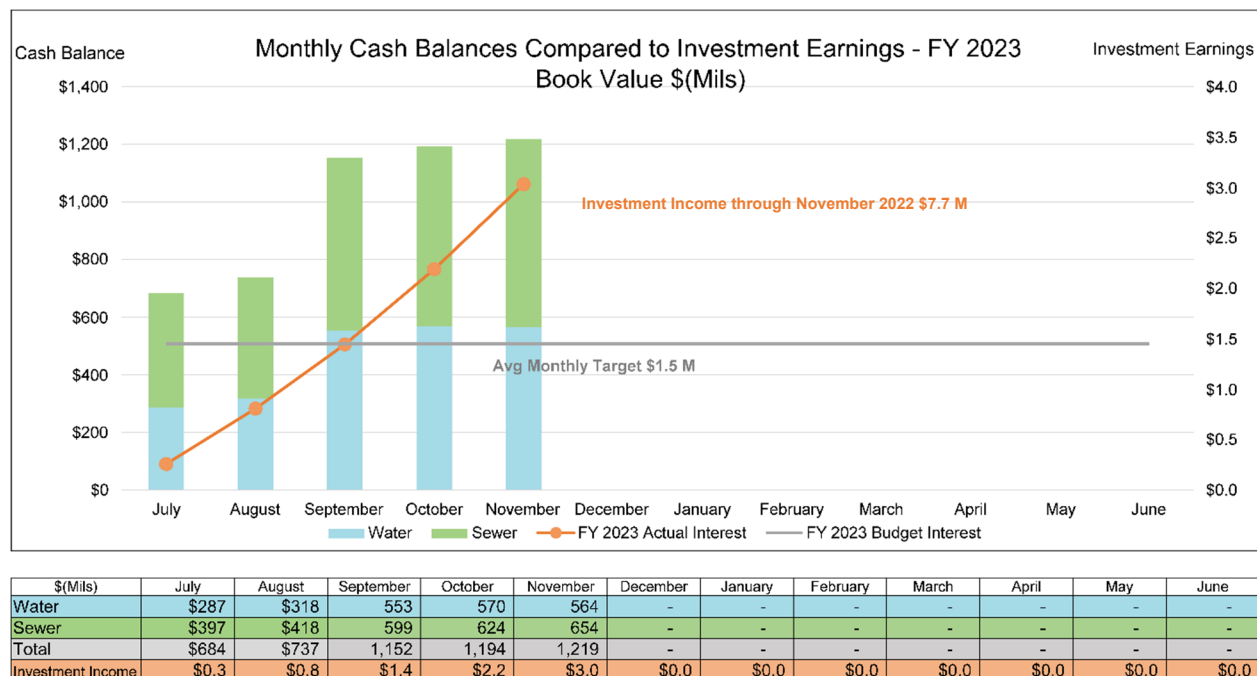
Monthly Cash Balances Compared to Investment Income

GLWA's investment holdings comply with the requirements of Public Act 20 of 1948, as amended and the GLWA Investment Policy. The cash balances shown in this report include bank deposits, money market funds, a local government investment pool, U.S. Treasuries, Federal Agencies, and commercial paper.

Cash and investment balances change each month based on Master Bond Ordinance (MBO) funding requirements, operational needs, capital spending pace, and mandatory debt payments. Investment income fluctuates monthly based on cash and investment balances as well as market conditions and investment strategy. For the month of November 2022, GLWA earned investment income of \$3.0 million and the cumulative FY 2023 earnings through November 2022 is \$7.7 million. Total investment income reported includes earnings from revenue requirement funds as well as construction bond funds.

GLWA continues to refine cash flows and work with its investment advisor to identify strategies to maximize future investment income while meeting the objectives of safety and liquidity.

Chart 1 – Monthly Cash Balances Compared to Investment Income – Through November 2022



Cash Balance Detail

Funds Held By GLWA: GLWA cash balances are held in accounts as defined by the Master Bond Ordinance. The accounts are funded by monthly transfers, as stipulated in the MBO, on the first business day of each month. The “operations and maintenance” (O&M) fund transfer amounts are based upon the annual O&M budget approved by the GLWA Board of Directors for the regional systems and by the Board of Water Commissioners for the Detroit Water & Sewerage Department (DWSD) local system budgets. The water and sewer funds held by GLWA and their purpose, as defined by the MBO, are listed below.

Funds Held Within Trust:

- Receiving – all retail and wholesale revenues collected which are distributed in subsequent month(s)
- Debt Service – funds set aside for debt service and debt reserve requirements
- Pension Obligation – funds set aside to meet GLWA’s annual funding requirements for the legacy General Retirement System Pension Plan
- Water Residential Assistance Program (WRAP) – funds set aside to be used to provide financial assistance to qualified residents throughout the local and regional water system as directed by program guidelines
- Budget Stabilization – funds held by GLWA on behalf of DWSD that can be applied against shortfalls in retail revenues
- Emergency Repair & Replacement (ER&R) – funds set aside to pay the costs for major unanticipated repairs and replacements of the local and regional systems
- Improvement & Extension (I&E) – funds set aside to be used for the improvements, enlargements, and extensions of the regional system

Funds Held Outside Trust:

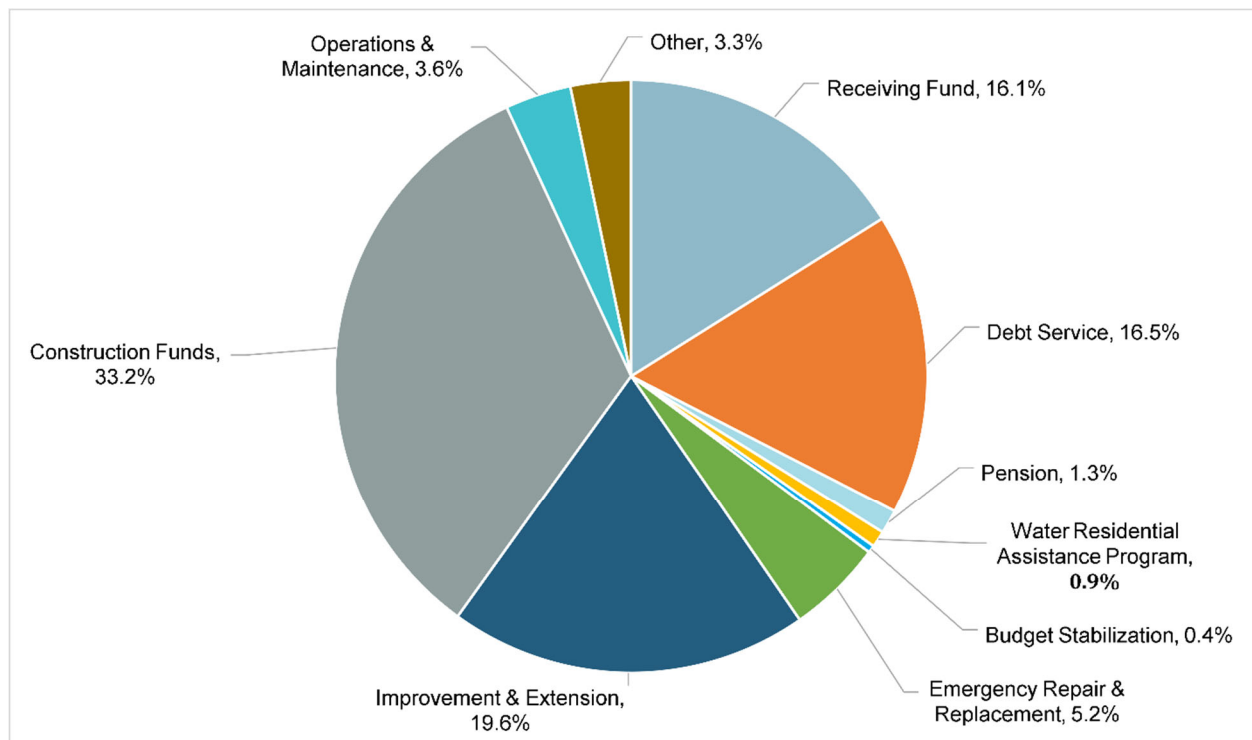
- Bond Proceeds – funds raised from debt issuance used for costs of repairs, construction, and improvements of the regional system
- Operations & Maintenance (O&M) – funds used to meet the operational and maintenance requirements of the regional system
- Other – retainage funds held on behalf of contractors and security deposit funds held on behalf of the City of Flint

A [chart](#) depicting the follow of funds is online at glwater.org as well as the [MBO](#) documents.

Chart 2 – Cash Balances - Water Funds as of November 2022 - Shows the allocation of the balance among the different categories defined in the section above. The total cash balance for Water Funds as of November 30, 2022 is \$564 million. The allocation of balances among the I&E, bond proceeds, and debt service reserve funds reflects GLWA's commitment to funding capital improvements and meeting debt reserve requirements while simultaneously increasing I&E resources to fund pay-as-you-go capital funding to reduce long-term debt in the future.

GLWA completed a bond transaction of \$225 million in September 2022 to support water system improvements. These funds along with I&E and SRF low-interest loans will fund the capital program going forward.

Chart 2 – Cash Balances - Water Funds as of November 2022

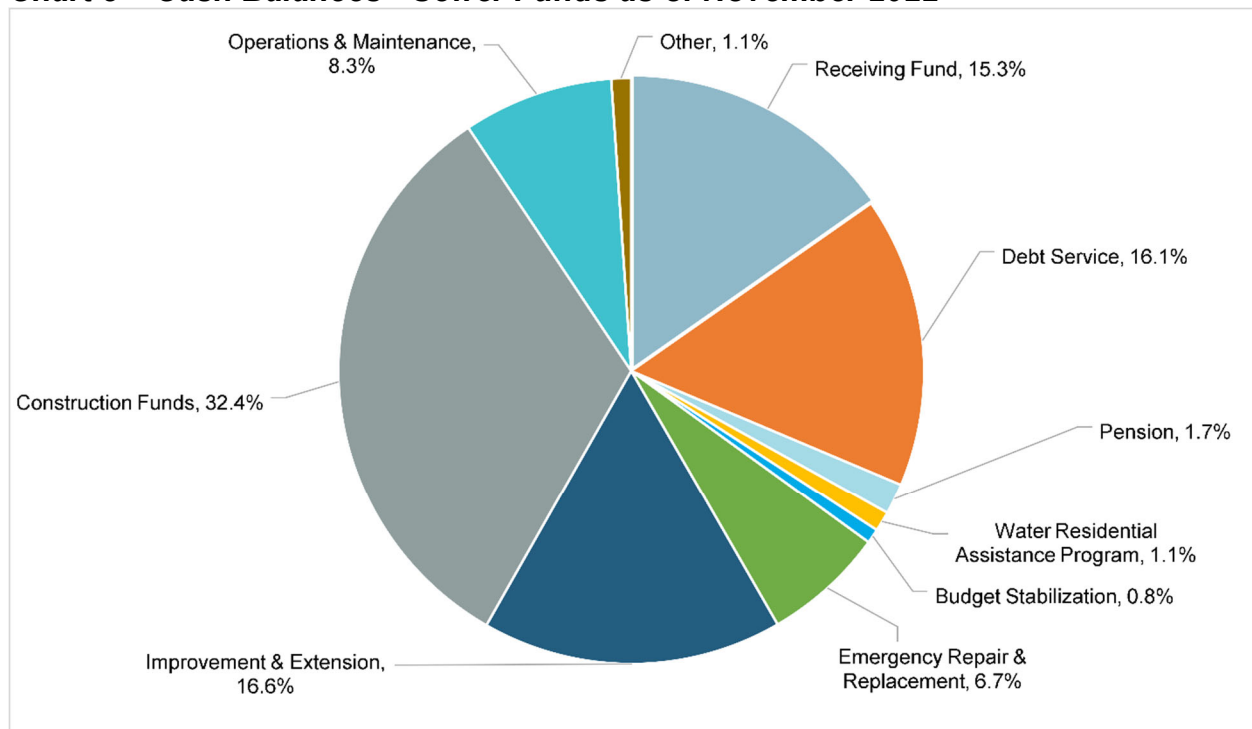


Note: Due to rounding totals may not equal 100%.

Chart 3 – Cash Balances - Sewer Funds as of November 2022 - Shows the allocation of the balance among the different funds defined in the section above. The total cash balance for Sewer Funds as of November 30, 2022 is \$654 million. Like the Water Funds, the allocation of balances among the I&E, bond proceeds, and debt service reserve funds reflects GLWA's commitment to funding capital improvements and meeting debt reserve requirements while simultaneously increasing I&E resources to fund pay-as-you-go capital funding to reduce long-term debt in the future.

In conjunction with the Water Fund transaction, GLWA completed a bond transaction of \$225 million in September 2022 to support sewage disposal system improvements. These funds along with I&E and SRF low-interest loans will fund the capital program going forward.

Chart 3 – Cash Balances - Sewer Funds as of November 2022



Note: Due to rounding totals may not equal 100%.



Retail Revenues, Receivables, and Collections: Pursuant to the terms of the lease agreement between the City of Detroit and the Great Lakes Water Authority (GLWA), the Detroit Water & Sewerage Department (DWSD) serves as GLWA's agent for billing activities for the City of Detroit retail customer class. All water and sewer service collections from DWSD customers are deposited in a trust account and are administered in accordance with the GLWA Master Bond Ordinance.

The Monthly Retail Revenues, Receivables, & Collections Report includes the following.

1. DWSD Retail Water Revenue Billings and Collections
2. DWSD Retail Sewer Revenue Billings and Collections
3. DWSD Retail Water & Sewer System Accounts Receivable Aging Report

Note: Wholesale customer revenues are billed by the Great Lakes Water Authority.

DWSD Retail Water Billings and Collections

Retail Billing Basis: DWSD bills retail customers monthly. Customers are billed throughout the month in cycles based on a meter reading schedule beginning with residential accounts and ending with commercial and industrial customers.

Table 1 - DWSD Retail Billings shows the FY 2023 water usage and billed revenue which are provided by DWSD staff. As of November 30, 2022, the DWSD usage was at 108.11% of the budget and billed revenue was at 104.10% of budget.

DWSD Retail Water Collections: The collections represent payments made by DWSD retail customers. These receipts are deposited directly into a lockbox with a trustee for administration of the flow of funds defined by GLWA's Master Bond Ordinance.

Table 2 - Retail Water Collections shows collections by month for the past 12 months compared to collections for the prior year as well as the calculated difference between the periods.

Table 1 – DWSD Retail Water Billing

RETAIL WATER CUSTOMERS								
Month (1)	FY 2023 - Original Budget		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	257,000	11,956,000	244,749	9,490,589	(12,251)	(2,465,411)	266,704	10,064,683
August	248,900	11,711,000	277,313	13,301,941	28,413	1,590,941	264,644	9,994,589
September	218,600	10,776,000	234,806	11,591,601	16,206	815,601	232,348	9,169,300
October	198,900	10,184,900	239,062	11,730,809	40,162	1,545,909	204,290	8,422,092
November	194,500	9,954,500	212,663	10,706,519	18,163	752,019	209,830	8,544,611
December	193,700	9,902,000					204,072	8,442,152
January	198,600	10,050,700					221,369	8,819,430
February	190,400	9,842,000					204,489	8,438,300
March	204,900	10,276,600					233,190	9,221,716
April	192,400	9,922,800					192,495	8,305,331
May	214,500	10,567,000					245,471	9,530,928
June	245,700	11,523,800					272,811	10,281,954
Total	2,558,100	126,667,300	1,208,593	56,821,459	90,693	2,239,059	2,751,713	109,235,086
<i>Subtotals ytd</i>	<i>1,117,900</i>	<i>54,582,400</i>	<i>1,208,593</i>	<i>56,821,459</i>	<i>90,693</i>	<i>2,239,059</i>		
<i>Achievement of Budget</i>			<i>108.11%</i>	<i>104.10%</i>				

(1) Figures are stated as "Service Months"; that is, July figures represent bills issued in August, etc.

(2) Retail Revenues include Miscellaneous Revenues and Penalties

Table 2 – DWSD Retail Water Collections

Water				
Month	Current Year	Prior Year	Variance	Ratio
December	8,121,586	7,409,888	711,698	9.60%
January	6,919,040	7,884,889	(965,849)	-12.25%
February	10,156,126	6,426,553	3,729,573	58.03%
March	11,093,125	8,458,827	2,634,298	31.14%
April	7,431,900	7,536,272	(104,372)	-1.38%
May	7,660,852	7,365,204	295,648	4.01%
June	9,123,179	8,917,831	205,348	2.30%
July	8,518,373	8,387,705	130,668	1.56%
August	9,636,219	8,588,507	1,047,712	12.20%
September	5,082,383	8,041,683	(2,959,300)	-36.80%
October	13,082,745	8,512,614	4,570,131	53.69%
November	10,270,582	7,926,331	2,344,251	29.58%
Rolling, 12-Month Total	107,096,110	95,456,304		
Rolling, 12-Month Average	8,924,676	7,954,692		

DWSD Retail Sewer Billings and Collections

Retail billing basis: DWSD bills retail customers monthly. Customers are billed throughout the month in cycles based on a meter reading schedule beginning with residential accounts and ending with commercial and industrial customers.

Table 3 - DWSD Retail Sewer Billings shows the FY 2023 sewer billed revenue which are provided by DWSD staff. As of November 30, 2022, the DWSD usage was at 105.43% of the budget and billed revenue was at 102.48% of budget.

DWSD Retail Sewer Collections: The collections represent payments made by DWSD retail customers. These receipts are deposited directly into a lockbox with a trustee for administration of the flow of funds defined by GLWA's Master Bond Ordinance.

Table 4 – DWSD Retail Sewer Collections shows collections by month for the past 12 months compared to collections for the prior year as well as the calculated difference between the periods.

Table 3 - DWSD Retail Sewer Billings

RETAIL SEWER CUSTOMERS								
Month (1)	FY 2023 - Original Budget		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	211,900	27,858,000	223,661	29,297,748	11,761	1,439,748	219,791	29,462,804
August	217,600	28,027,300	231,809	29,640,202	14,209	1,612,902	249,522	31,231,624
September	188,400	27,285,000	197,455	27,523,933	9,055	238,933	215,748	29,401,234
October	182,400	27,102,800	194,154	27,375,180	11,754	272,380	190,483	27,936,280
November	167,500	26,696,800	173,233	26,525,064	5,733	(171,736)	194,135	28,032,939
December	166,500	26,780,100					189,283	27,836,982
January	169,200	26,797,900					203,526	28,493,782
February	166,100	26,702,400					189,525	27,837,984
March	176,100	26,994,800					212,176	29,032,277
April	166,400	26,761,800					179,291	27,196,557
May	182,100	27,166,400					220,082	29,382,758
June	210,600	27,861,300					242,746	30,704,517
Total	2,204,800	326,034,600	1,020,312	140,362,127	52,512	3,392,227	2,506,308	346,549,738
Subtotals ytd	967,800	136,969,900	1,020,312	140,362,127		3,392,227		
Achievement of Budget/Goal			105.43%	102.48%				

(1) Figures are stated as "Service Months"; that is, July figures represent bills issued in August, etc.

(2) Retail Revenues include Miscellaneous Revenues and Penalties

Table 4 – DWSD Retail Sewer Collections

Sewer				
Month	Current Year	Prior Year	Variance	Ratio
December	24,880,743	22,856,217	2,024,526	8.86%
January	23,020,491	22,057,276	963,215	4.37%
February	24,495,922	22,777,467	1,718,455	7.54%
March	29,410,086	25,002,508	4,407,578	17.63%
April	22,115,076	21,196,170	918,906	4.34%
May	20,952,592	21,888,687	(936,095)	-4.28%
June	25,922,279	32,508,249	(6,585,970)	-20.26%
July	30,935,343	24,185,252	6,750,091	27.91%
August	26,064,896	25,036,198	1,028,698	4.11%
September	15,261,467	22,635,796	(7,374,329)	-32.58%
October	28,182,933	25,119,240	3,063,693	12.20%
November	21,994,899	23,505,249	(1,510,350)	-6.43%
Rolling 12-Month Total	293,236,727	288,768,309		
Rolling, 12-Month Average	24,436,394	24,064,026		

DWSD Retail Water and Sewer Accounts Receivable Aging Report

The DWSD detailed accounts receivable aging is categorized by customer category.

Table 5 is a summary of the monthly sales, total receivables, bad debt allowance and net Water and Sewer receivables as of November 30, 2022 with comparative totals from June 30, 2021 and June 30, 2020. This table does not include past due accounts that have been transferred to the City of Detroit for collection as tax liens.

The table provides a comparison of days in accounts receivable calculated as net receivables divided by daily sales and confirms that over time days in AR is declining due in large part to a consistent practice of recognizing past due amounts over 60 days as bad debt expense. To the extent this allowance is adjusted, and bad debt expense is recognized in the DWSD budget, it does not impact GLWA.

Table 6 is a summary of the total, current and non-current Water and Sewer receivables by category as of November 30, 2022 with comparative totals from November 30, 2021. This table does not include past due accounts that have been transferred to the City of Detroit for collection as tax liens.

The Total Balance and Total Bad Debt Allowance as of November 30, 2022 are reflective of the values in both the Table 5 Summary and Table 6 breakdown.

Table 5 – DWSD Retail Accounts Receivable Aging Report – Summary

Summary						
Period Ending	Monthly Sales	Receivables			Days in AR (1)	
		Total	Allowance	Net		
June 30, 2020	\$ 33,061,000	\$ 213,846,000	\$ (142,882,000)	\$ 70,964,000	64	
June 30, 2021	\$ 36,335,000	\$ 248,055,000	\$ (200,146,000)	\$ 47,909,000	40	
June 30, 2022	\$ 39,022,000	\$ 300,346,000	\$ (253,924,000)	\$ 46,422,000	36	
November 30, 2022	\$ 39,224,000	\$ 311,066,000	\$ (245,950,000)	\$ 65,116,000	50	
Totals may be off due to rounding						

(1) Days in AR is calculated as net receivables divided by daily sales (monthly sales/30 days)

Table 6 – DWSD Retail Accounts Receivable Aging Report – Water & Sewer Combined

Sales Class	# of Accounts	Avg. Balance	Current	> 30 Days	> 60 Days	> 180 Days	A/R Balance
Residential	197,229	\$ 862.95	\$ 15,575,000 9.2%	\$ 9,089,000 5.3%	\$ 28,445,000 16.7%	\$ 117,090,000 68.8%	\$ 170,199,000 100.0%
Commercial	20,908	1,264.78	8,047,000 30.4%	2,654,000 10.0%	5,010,000 18.9%	10,733,000 40.6%	26,444,000 100.0%
Industrial	3,579	4,385.43	5,297,000 33.7%	2,056,000 13.1%	2,620,000 16.7%	5,722,000 36.5%	15,695,000 100.0%
Tax Exempt	3,829	741.09	530,000 18.7%	204,000 7.2%	522,000 18.4%	1,582,000 55.8%	2,838,000 100.0%
Government	78,801	404.61	3,859,000 12.1%	3,076,000 9.6%	6,035,000 18.9%	18,913,000 59.3%	31,883,000 100.0%
Drainage	32,667	795.38	2,384,000 9.2%	1,366,000 5.3%	4,475,000 17.2%	17,758,000 68.3%	25,983,000 100.0%
Subtotal - Active Accounts	337,013	\$ 810.18	\$ 35,691,000 13.1%	\$ 18,445,000 6.8%	\$ 47,107,000 17.3%	\$ 171,798,000 62.9%	\$ 273,042,000 100.0%
Inactive Accounts	320,829	118.52	(303,000) (0.8%)	108,000 0.3%	596,000 1.6%	37,622,000 98.9%	38,024,000 100.0%
Total	657,842	\$ 472.86	\$ 35,389,000	\$ 18,553,000	\$ 47,703,000	\$ 209,420,000	\$ 311,066,000
% of Total A/R			11.4%	6.0%	15.3%	67.3%	100.0%
Water Fund	247,056	258.74	\$ 8,673,000	\$ 4,366,000	\$ 10,170,000	\$ 40,714,000	\$ 63,923,000
Sewer Fund	285,962	864.25	\$ 26,716,000	\$ 14,187,000	\$ 37,533,000	\$ 168,707,000	\$ 247,143,000
Total November 30, 2022 (a)	657,842	472.86	\$ 35,389,000	\$ 18,553,000	\$ 47,703,000	\$ 209,420,000	\$ 311,066,000
Water Fund- Allowance							\$ (47,345,000)
Sewer Fund- Allowance							\$ (198,605,000)
Total Bad Debt Allowance							\$ (245,950,000)
Comparative - November 2021 (b)	639,983	408.71	\$ 31,398,000	\$ 15,626,000	\$ 46,227,000	\$ 168,316,000	\$ 261,568,000
Difference (a) - (b)	17,859		\$ 3,991,000	\$ 2,927,000	\$ 1,476,000	\$ 41,104,000	\$ 49,498,000



The Monthly Wholesale Billings, Receivables, & Collections Report includes the following.

1. Wholesale Water Billings and Collections
2. Wholesale Sewer Billings and Collections
3. City of Highland Park Billings and Collections
4. Wholesale Water & Sewer Accounts Receivable Aging Report

Wholesale Water Billings and Collections

Wholesale Water Contracts: Great Lakes Water Authority (GLWA) provides wholesale water service to 87 member-partners through a variety of service arrangements.

Service Arrangement Type

Model Contract	84
Emergency	1
Older Contracts	2
Total	87

Note: Services are provided to the Detroit Water & Sewerage Department (DWSD) via a Water and Sewer Services Agreement (WSSA). See the “Retail Revenues, Receivables, and Collections Report” section of this monthly report.

Wholesale Water Billing Basis: Beginning with FY 2016, wholesale water charges were restructured to create a more stable revenue stream by using a historical rolling average to project customer volumes which accounts for 40% of the monthly charges and 60% of the annual customer revenue requirement as a monthly fixed charge.

Table 1 - Wholesale Water Billings shows the FY 2023 water billed usage and revenues. As of November 30, 2022, the billed usage was at 101.09% of the original plan and billed revenue at 100.80% of the original plan. Billings and usage from the City of Flint are included as they were assumed in the FY 2023 Budget.

Wholesale Water Collections: The collections represent payments made by wholesale customers. These receipts are deposited directly into a lockbox with a trustee for administration of the flow of funds defined by GLWA’s Master Bond Ordinance.

Table 2 - Wholesale Water Collections shows collections by month for the past 12 months compared to collections for the prior year as well as the calculated difference between the periods. Current year collections are trending above with the prior year for the twelve-month period ending November 30, 2022.

Table 1 – FY 2023 Wholesale Water Billings Report

WHOLESALE WATER CHARGES								
Month (1)	FY 2023 Charges (3)		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	1,565,900	33,114,500	1,664,936	34,349,872	99,036	1,235,372	1,342,686	29,642,785
August	1,513,500	32,632,400	1,418,347	31,555,444	(95,153)	(1,076,956)	1,417,142	30,604,230
September	1,271,200	29,674,600	1,308,481	30,306,713	37,281	632,113	1,298,750	29,065,588
October	1,033,200	27,094,600	1,055,245	27,391,089	22,045	296,489	1,006,217	26,123,483
November	901,100	25,815,700	906,669	25,911,801	5,569	96,101	905,525	25,117,181
December	966,900	26,357,900					958,879	25,542,432
January	954,300	26,296,700					979,803	25,791,405
February	877,900	25,580,400					875,553	24,800,493
March	965,300	26,359,200					963,825	25,592,186
April	907,300	25,855,100					912,124	25,139,078
May	1,086,000	27,886,200					1,094,002	27,116,529
June	1,470,200	32,090,900					1,385,287	30,301,351
Total	13,512,800	338,758,200	6,353,678	149,514,919	68,778	1,183,119	13,139,793	324,836,740
Subtotals ytd	6,284,900	148,331,800	6,353,678	149,514,919	68,778	1,183,119		
Achievement of Original Plan			101.09%	100.80%				
Billing Adjustments (4)			(4,011)	5,680				
			6,349,667	149,520,599				
			101.03%	100.80%				

(1) Figures are stated as "Service Months"; that is, July figures represent bills issued in August, etc.

(2) Water Revenues differ from Table 1A because amounts are reduced by the monthly payment to the City of Flint for a license to raw water rights under the Flint Raw Water Contract in Table 1A

(3) Charges are based on the approved FY 2023 water supply system charge schedule.

(4) Reflects prior period adjustments made in the current year for DTE Greenwood and Madison Heights.

Table 2 - Wholesale Water Collections

Water				
Month	Current Year	Prior Year	Variance	Ratio
December	25,265,770	32,218,822	(6,953,052)	-21.58%
January	25,302,369	29,609,061	(4,306,692)	-14.55%
February	31,280,599	20,716,948	10,563,651	50.99%
March	24,919,847	25,694,176	(774,329)	-3.01%
April	22,123,572	20,854,506	1,269,066	6.09%
May	21,726,941	23,545,123	(1,818,182)	-7.72%
June	27,717,969	24,878,479	2,839,490	11.41%
July	26,379,503	25,403,968	975,535	3.84%
August	14,435,092	23,709,847	(9,274,755)	-39.12%
September	41,154,992	31,668,492	9,486,500	29.96%
October	21,887,632	23,849,618	(1,961,986)	-8.23%
November	30,903,329	25,265,770	5,637,559	22.31%
Rolling 12-Month Total	313,097,614	307,414,810		
Rolling, 12-Month Average	26,091,468	25,617,901		

Wholesale Sewer Billings and Collections

Wholesale Sewer Contracts: GLWA provides wholesale sewer service to 18 member-partners via multiple service arrangements.

Service Arrangement Type

Model Contract	11
Emergency	0
Older Contracts	7
Total	<u>18</u>

Note: Services are provided to the Detroit Water & Sewerage Department via a Water and Sewer Services Agreement (WSSA). See the “Retail Revenues, Receivables, and Collections Report” section of the monthly report.

Wholesale Sewer Billing Basis: Beginning in FY 2015, the “sewer rate simplification” initiative was applied which provides for a stable revenue stream and predictability for our member partners. Wholesale sewer customers are billed a fixed monthly fee based upon the annual revenue requirement.

Table 3 - Wholesale Sewer Billings shows the FY 2023 sewer billed revenue. As of November 30, 2022 the billed revenue is at 100.00% of the original plan.

Wholesale Sewer Collections: The collections represent payments made by wholesale customers. These receipts are deposited directly into a lockbox with a trustee for administration of the flow of funds defined by GLWA’s Master Bond Ordinance.

Table 4 - Wholesale Sewer Collections shows collections by month for the past 12 months compared to collections for the prior year as well as the calculated difference between the periods.

The shift in wholesale sewer collection patterns is largely attributable to the timing of payments received. There are several large accounts whose payments swing between the end of the current month and the beginning of the next month. Current year collections are trending in line with the twelve-month period ending November 30, 2022.

Table 3 – FY 2023 Wholesale Sewer Billings Report

WHOLESALE SEWER CHARGES								
Month (1)	FY 2023 Charges		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume (2)	Revenue	Volume (2)	Revenue	Volume (2)	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
August	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
September	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
October	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
November	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
December	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
January	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
February	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
March	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
April	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
May	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
June	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
Total		274,657,200		114,440,500		-		271,380,000
Subtotals ytd		114,440,500		114,440,500		-		
Achievement of Budget				100.00%				

(1) Figures are stated as "Service Months"; that is, July figures represent bills issued in August, etc.

(2) Not tracked as part of the wholesale sewer charges.

Table 4 - Wholesale Sewer Collections

Sewer				
Month	Current Year	Prior Year	Variance	Ratio
December	21,765,958	18,966,208	2,799,750	14.76%
January	26,436,258	25,232,649	1,203,609	4.77%
February	23,937,258	25,968,849	(2,031,591)	-7.82%
March	24,713,158	16,872,900	7,840,258	46.47%
April	19,937,558	22,368,124	(2,430,566)	-10.87%
May	10,226,700	28,128,933	(17,902,233)	-63.64%
June	29,659,245	15,972,800	13,686,445	85.69%
July	28,223,515	28,523,650	(300,135)	-1.05%
August	21,036,661	21,842,125	(805,464)	-3.69%
September	22,244,437	22,191,725	52,712	0.24%
October	24,707,249	26,706,558	(1,999,309)	-7.49%
November	19,882,939	16,534,758	3,348,181	20.25%
Rolling 12-Month Total	272,770,936	269,309,279		
Rolling, 12-Month Average	22,730,911	22,442,440		

City of Highland Park Billings and Collections

The City of Highland Park is provided water service pursuant to an emergency service basis. Sewer service is provided pursuant to a 1982 amended contract which indicates that the parties are guided in their legal relationship by a Michigan Supreme Court decision from 1949.

As of November 30, 2022, Highland Park had a delinquent balance of \$55.2 million, including \$41.9 million for wastewater treatment services, \$1.8 million for industrial waste control services, and \$11.5 million for water supply services.

Table 5 - City of Highland Park Billings and Collections provides a life-to-date balance summary of the billing and collection history for Highland Park with detail provided for fiscal year 2023 through November 30, 2022. Please note the numbers below reflect the month the billing was sent and not the month the service was provided. A life-to-date summary is provided as an appendix to this monthly financial report.

Table 5 - City of Highland Park Billings and Collections

City of Highland Park Billings and Payments				
	Water	Sewer	IWC	Total
December 31, 2021 Balance	10,355,605	39,741,475	1,794,061	51,891,141
January 2022 Billing	96,633	446,400	4,002	547,035
January 2022 Payments	-	-	-	-
January 31, 2022 Balance	10,452,238	40,187,875	1,798,063	52,438,176
February 2022 Billing	97,203	446,400	4,002	547,605
February 2022 Payments	-	-	-	-
February 28, 2022 Balance	10,549,441	40,634,275	1,802,065	52,985,781
March 2022 Billing	96,540	446,400	4,000	546,940
March 2022 Payments	-	-	-	-
March 31, 2022 Balance	10,645,981	41,080,675	1,806,065	53,532,721
April 2022 Billing	98,395	446,400	4,009	548,804
April 2022 Payments	-	-	-	-
April 30, 2022 Balance	10,744,376	41,527,075	1,810,074	54,081,525
May 2022 Billing	96,254	446,400	4,009	546,663
May 2022 Payments	-	-	-	-
May 31, 2022 Balance	10,840,630	41,973,475	1,814,083	54,628,188
June 2022 Billing	100,820	446,400	4,002	551,222
June 2022 Payments	-	(1,788,828)	-	(1,788,828)
June 30, 2022 Balance	10,941,450	40,631,047	1,818,085	53,390,582
July 2022 Billing	104,262	446,400	4,002	554,664
July 2022 Payments	-	(126,056)	-	(126,056)
July 31, 2022 Balance	11,045,712	40,951,391	1,822,087	53,819,190
August 2022 Billing	112,017	451,700	4,082	567,799
August 2022 Payments	-	(117,079)	-	(117,079)
August 31, 2022 Balance	11,157,729	41,286,012	1,826,169	54,269,910
September 2022 Billing	113,427	451,700	4,025	569,152
September 2022 Payments	-	(144,837)	-	(144,837)
September 30, 2022 Balance	11,271,156	41,592,875	1,830,194	54,694,225
October 2022 Billing	106,220	451,700	4,026	561,946
October 2022 Payments	-	(133,899)	-	(133,899)
October 31, 2022 Balance	11,377,376	41,910,676	1,834,220	55,122,272
November 2022 Billing	106,221	451,700	4,026	561,947
November 2022 Payments	-	(492,789)	-	(492,789)
November 30, 2022 Balance	11,483,597	41,869,587	1,838,246	55,191,430

Wholesale Water & Sewer Accounts Receivable Aging Report

The detailed accounts receivable aging is in the Appendix to this monthly report. This report reflects the wholesale receivables only and does not include DWSD.

Table 6 - Wholesale Accounts Receivable Aging Report Summary is a summary of the total, current and non-current receivables by category as of November 30, 2022.

Table 7 - Wholesale Accounts Receivable Aging Report, Net of Highland Park is the same summary *without* the past due balances for the City of Highland Park.

Table 8 - Wholesale Accounts Receivable Aging Report, Net of Highland Park and Dearborn is the same summary *without* the past due balances for the City of Highland Park and Dearborn. Four past due Water accounts totaling four thousand dollars were subsequently paid in full. One Sewer past due of \$59 thousand is under discussion with the member partner. The IWC credit relates to an account overpayment that was resolved through subsequent payments.

One pollutant surcharge past due account totaling four thousand dollars makes up the majority of the pollutant surcharge past due balance. The past due amount on this account was subsequently paid in full. The remaining pollutant surcharge past due balance consists of smaller account holders that along GLWA staff continue to communicate with.

Table 6 - Wholesale Accounts Receivable Aging Report Summary

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 58,963,001.74	\$ 41,624,426.54	\$ 864,351.04	\$ 1,084,029.12	\$ 15,390,195.04
Sewer	\$ 60,020,318.97	\$ 18,543,181.81	\$ 510,950.22	\$ 451,700.00	\$ 40,514,486.94
IWC	\$ 2,318,668.65	\$ 489,652.19	\$ 2,847.89	\$ 4,081.20	\$ 1,822,087.37
Pollutant Surcharge	\$ 433,466.30	\$ 425,851.09	\$ 5,770.23	\$ 521.55	\$ 1,323.43
Total	\$ 121,735,455.66	\$ 61,083,111.63	\$ 1,383,919.38	\$ 1,540,331.87	\$ 57,728,092.78
	100.00%	50.18%	1.14%	1.27%	47.42%

Table 7 - Wholesale Accounts Receivable Aging Report, Net of Highland Park

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 47,479,405.07	\$ 41,411,985.68	\$ 750,924.35	\$ 972,011.30	\$ 4,344,483.74
Sewer	\$ 18,150,732.03	\$ 18,091,481.81	\$ 59,250.22	\$ -	\$ -
IWC	\$ 480,422.95	\$ 481,600.77	\$ (1,177.82)	\$ -	\$ -
Pollutant Surcharge	\$ 433,466.30	\$ 425,851.09	\$ 5,770.23	\$ 521.55	\$ 1,323.43
Total	\$ 66,544,026.35	\$ 60,410,919.35	\$ 814,766.98	\$ 972,532.85	\$ 4,345,807.17
	100.00%	90.78%	1.22%	1.46%	6.53%

Table 8 - Wholesale Accounts Receivable Aging Report, Net of Highland Park and Dearborn

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 39,256,489.07	\$ 39,252,948.70	\$ 3,540.37	\$ -	\$ -
Sewer	\$ 18,150,732.03	\$ 18,091,481.81	\$ 59,250.22	\$ -	\$ -
IWC	\$ 480,422.95	\$ 481,600.77	\$ (1,177.82)	\$ -	\$ -
Pollutant Surcharge	\$ 433,466.30	\$ 425,851.09	\$ 5,770.23	\$ 521.55	\$ 1,323.43
Total	\$ 58,321,110.35	\$ 58,251,882.37	\$ 67,383.00	\$ 521.55	\$ 1,323.43
	100.00%	99.88%	0.12%	0.00%	0.00%

Note: percentages vary from 100% due to rounding.



The Monthly Trust Receipts & Disbursements Report includes the following.

1. GLWA Trust Receipts & Disbursements – Net Cash Flows and Receipts
2. DWSD Trust Receipts & Disbursements – Net Cash Flows, Receipts & Loan Receivable
3. Combined System Trust Receipts & Disbursements – Net Cash Flows

GLWA Trust Receipts & Disbursements

Net Cash Flows and Receipts Basis: The trusts established pursuant to the Master Bond Ordinance (MBO) outline a flow of funds that governs the priority of the application of cash receipts from both the regional wholesale (i.e., Great Lakes Water Authority or GLWA) and local retail (i.e., Detroit Water & Sewerage Department or DWSD) activities which are further separated by the water system and the sewage disposal system.

This report provides an ongoing status of the net cash flow of both organizations (GLWA and DWSD) to fund their allocated share of Master Bond Ordinance requirements in accordance with the leases for the regional systems.

Table 1 – GLWA Net Cash Flows from Trust Receipts & Disbursements provides a summary of cash receipt collections and required MBO transfers by fiscal year. Fiscal year 2023 reflects five months of activity to date.

Water fund receipts exceeded required disbursements by 12% through November 30, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 11% since July 1, 2018.

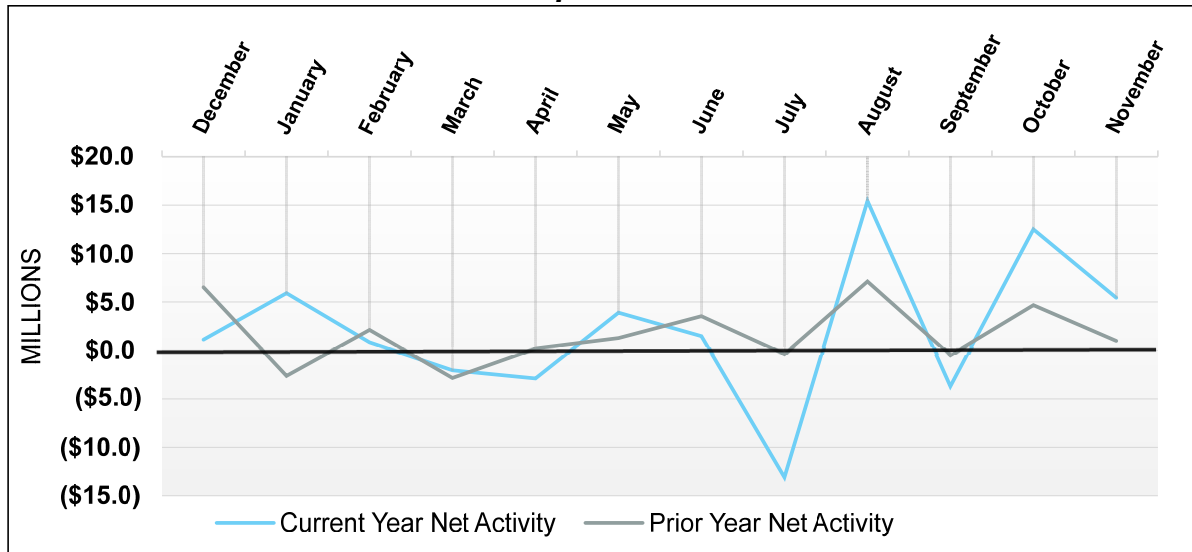
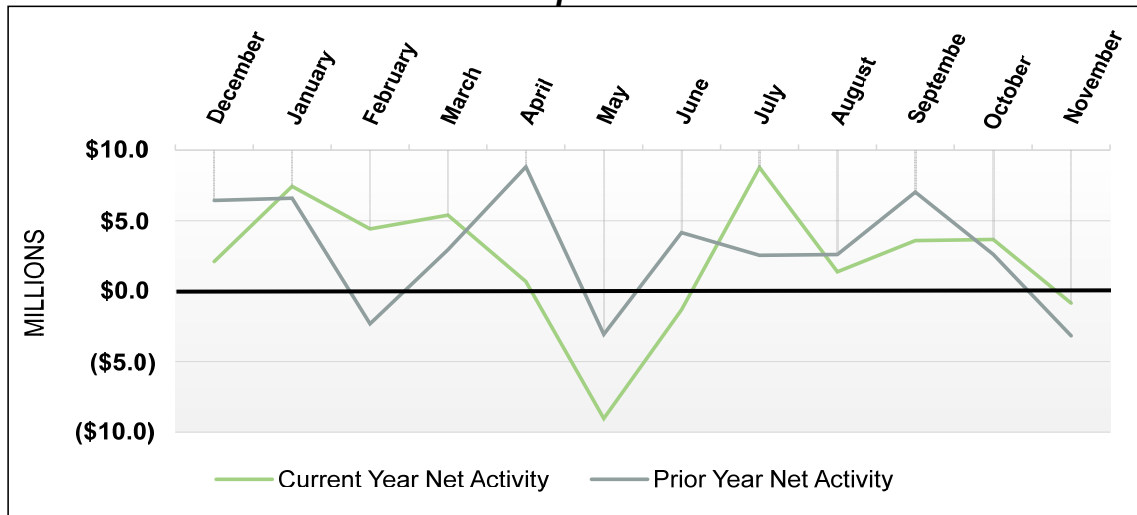
Sewer fund receipts exceeded required disbursements by 9% through November 30, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 7% since July 1, 2018.

Chart 1 – GLWA 12-Month Net Receipts – Water outlines monthly cash receipt trends across two points of reference for the regional water system—current year and prior year. The black line at the zero highlights the minimum goal for net receipts.

Chart 2 – GLWA 12-Month Net Receipts – Sewer outlines monthly cash receipt trends across two points of reference for the regional sewer system—current year and prior year. The black line at the zero highlights the minimum goal for net receipts.

Table 1 – GLWA Net Cash Flows from Trust Receipts & Disbursements

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru Nov 30
Water					
1 Receipts	\$ 336,594,234	\$ 332,606,196	\$ 336,642,021	\$ 338,117,694	\$ 157,548,586
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	336,594,234	332,606,196	336,642,021	338,117,694	157,548,586
4 Disbursements	(289,230,481)	(296,190,425)	(308,713,407)	(316,495,360)	(140,977,786)
5 Receipts Net of Required Transfers	47,363,753	36,415,771	27,928,614	21,622,334	16,570,800
6 I&E Transfer	(47,695,000)	(25,719,751)	(31,991,687)	(26,622,862)	(8,702,217)
7 Net Receipts	\$ (331,247)	\$ 10,696,020	\$ (4,063,073)	\$ (5,000,528)	\$ 7,868,583
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	116%	112%	109%	107%	112%
Sewer					
9 Receipts	\$ 467,743,744	\$ 490,461,356	\$ 472,871,853	\$ 471,979,297	\$ 204,956,946
10 MOU Adjustments	-	-	-	-	-
11 Adjusted Receipts	467,743,744	490,461,356	472,871,853	471,979,297	204,956,946
12 Disbursements	(453,406,636)	(445,604,952)	(436,600,883)	(450,701,751)	(188,411,957)
13 Receipts Net of Required Transfers	14,337,108	44,856,404	36,270,970	21,277,546	16,544,989
14 I&E Transfer	(22,547,700)	(19,096,200)	(40,504,727)	(37,651,788)	(5,208,533)
15 DWSD Shortfall Advance	-	-	-	-	-
16 Shortfall Repayment (principal)	9,367,355	17,542,669	18,206,431	8,296,578	-
17 Net Receipts	\$ 1,156,763	\$ 43,302,873	\$ 13,972,674	\$ (8,077,664)	\$ 11,336,456
18 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	103%	110%	108%	105%	109%
Combined					
19 Receipts	\$ 804,337,978	\$ 823,067,552	\$ 809,513,874	\$ 810,096,991	\$ 362,505,532
20 MOU Adjustments	-	-	-	-	-
21 Adjusted Receipts	804,337,978	823,067,552	809,513,874	810,096,991	362,505,532
22 Disbursements	(742,637,117)	(741,795,377)	(745,314,290)	(767,197,111)	(329,389,743)
23 Receipts Net of Required Transfers	61,700,861	81,272,175	64,199,584	42,899,880	33,115,789
24 I&E Transfer	(70,242,700)	(44,815,951)	(72,496,414)	(64,274,650)	(13,910,750)
25 Shortfall Advance	-	-	-	-	-
26 Shortfall Repayment	9,367,355	17,542,669	18,206,431	8,296,578	0
27 Net Receipts	\$ 825,516	\$ 53,998,893	\$ 9,909,601	\$ (13,078,192)	\$ 19,205,039
28 <i>Ratio of Receipts to Required Disbursements (Line 21/Line 22)</i>	108%	111%	109%	106%	110%

Chart 1 – GLWA 12-Month Net Receipts – Water

Chart 2 – GLWA 12-Month Net Receipts – Sewer


DWSD Trust Receipts & Disbursements

Net Cash Flows and Receipts Basis: The trusts established pursuant to the Master Bond Ordinance (MBO) outline a flow of funds that governs the priority of the application of cash receipts from both the regional wholesale (i.e. Great Lakes Water Authority or GLWA) and local retail (i.e. Detroit Water & Sewerage Department or DWSD) activities which are further separated by the water system and the sewage disposal system.

This report provides an ongoing status of the net cash flow of both organizations (GLWA and DWSD) to fund their allocated share of Master Bond Ordinance requirements in accordance with the leases for the regional systems.

Table 2 – DWSD Net Cash Flows from Trust Receipts & Disbursements

provides a summary of cash receipt collections and required MBO transfers by fiscal year. Fiscal year 2023 reflects five months of activity to date.

Water fund receipts exceeded required disbursements by 5% through November 30, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 3% since July 1, 2018.

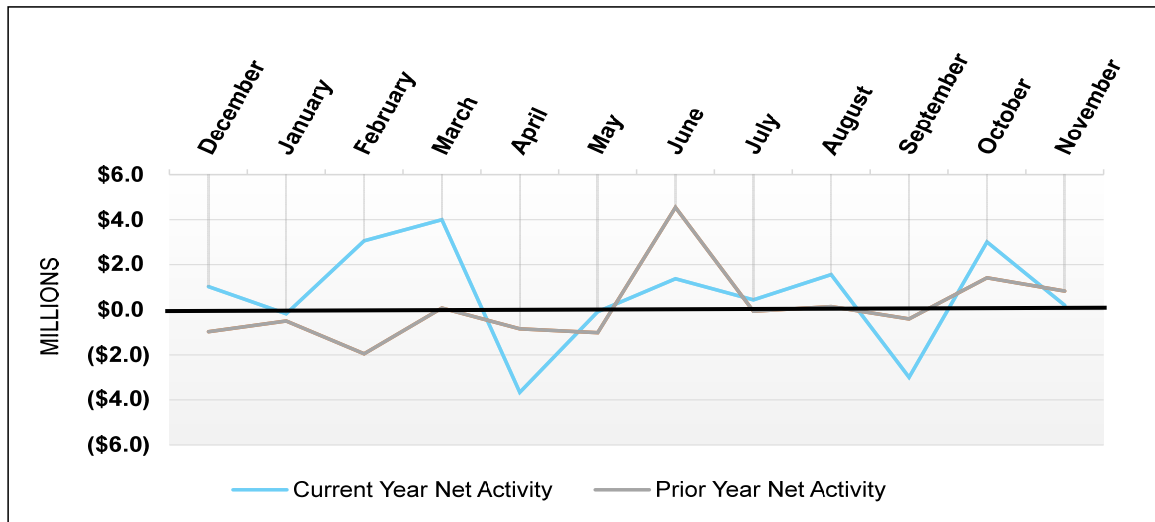
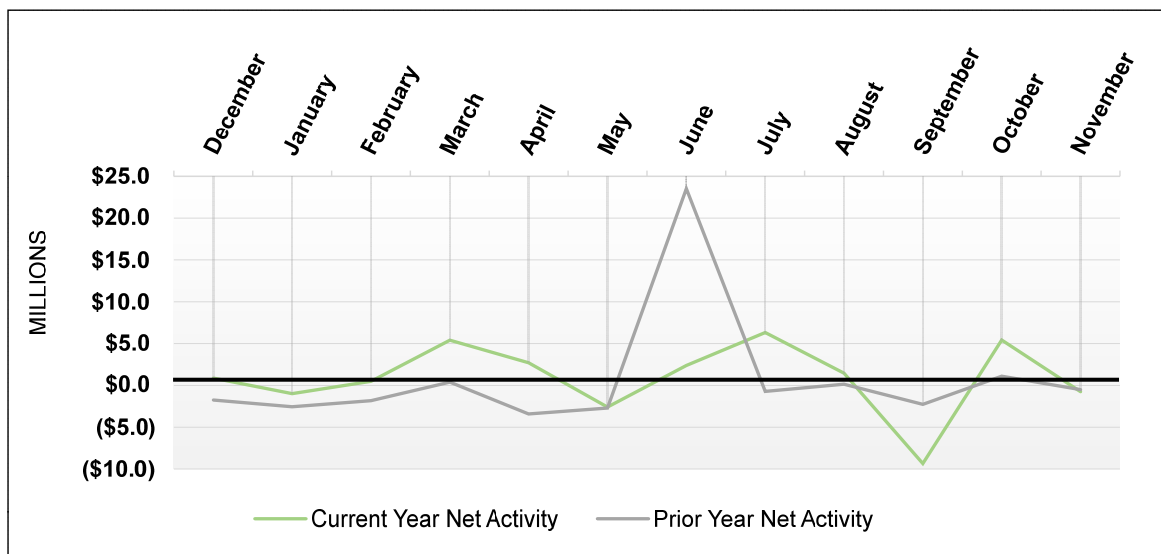
Sewer fund receipts exceeded required disbursements by 3% through November 30, 2022 compared to the four-year historical average of required receipts exceeding disbursements by 1% since July 1, 2018.

Table 2 – DWSD Net Cash Flows from Trust Receipts & Disbursements

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru Nov 30
Water					
1 Receipts	\$ 99,868,219	\$ 96,885,723	\$ 102,067,423	\$ 101,964,963	\$ 46,610,218
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	99,868,219	96,885,723	102,067,423	101,964,963	46,610,218
4 Disbursements	(97,694,600)	(97,823,097)	(100,707,200)	(94,495,601)	(44,392,612)
5 Receipts Net of Required Transfers	2,173,619	(937,374)	1,360,223	7,469,362	2,217,606
6 I&E Transfer	(8,407,080)	-	-	-	-
7 Net Receipts	\$ (6,233,461)	\$ (937,374)	\$ 1,360,223	\$ 7,469,362	\$ 2,217,606
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	102%	99%	101%	108%	105%
Sewer					
9 Receipts	\$ 265,339,797	\$ 264,689,559	\$ 308,210,767	\$ 291,280,896	\$ 122,495,705
10 MOU Adjustments	6,527,200	-	-	-	-
11 Adjusted Receipts	271,866,997	264,689,559	308,210,767	291,280,896	122,495,705
12 Disbursements	(271,018,306)	(275,507,374)	(295,100,771)	(285,256,000)	(119,392,380)
13 Receipts Net of Required Transfers	848,691	(10,817,815)	13,109,996	6,024,896	3,103,325
14 I&E Transfer	-	-	-	-	-
15 Shortfall Advance from GLWA	-	-	-	-	-
16 Net Receipts	\$ 848,691	\$ (10,817,815)	\$ 13,109,996	\$ 6,024,896	\$ 3,103,325
17 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	100%	96%	104%	102%	103%
Combined					
18 Receipts	\$ 365,208,016	\$ 361,575,282	\$ 410,278,190	\$ 393,245,859	\$ 169,105,923
19 MOU Adjustments	6,527,200	-	-	-	-
20 Adjusted Receipts	371,735,216	361,575,282	410,278,190	393,245,859	169,105,923
21 Disbursements	(368,712,906)	(373,330,471)	(395,807,971)	(379,751,601)	(163,784,992)
22 Receipts Net of Required Transfers	3,022,310	(11,755,189)	14,470,219	13,494,258	5,320,931
23 I&E Transfer	(8,407,080)	-	-	-	-
24 Shortfall Advance from GLWA	-	-	-	-	-
25 Net Receipts	\$ (5,384,770)	\$ (11,755,189)	\$ 14,470,219	\$ 13,494,258	\$ 5,320,931
26 <i>Ratio of Receipts to Required Disbursements (Line 20/Line 21)</i>	101%	97%	104%	104%	103%

Chart 3 – DWSD 12-Month Net Receipts – Water outlines monthly activity trends across two points of reference for the local water system—current year and prior year. The black line at the zero highlights the breakeven goal for net receipts.

Chart 4 – DWSD 12-Month Net Receipts – Sewer outlines monthly activity trends across two points of reference for the local sewer system—current year and prior year. The black line at the zero highlights the breakeven goal for net receipts.

Chart 3 – DWSD 12-Month Net Receipts – Water

Chart 4 – DWSD 12-Month Net Receipts – Sewer


Combined System Trust Receipts & Disbursements

Net Cash Flows and Receipts Basis: The trusts established pursuant to the Master Bond Ordinance (MBO) outline a flow of funds that governs the priority of the application of cash receipts from both the regional wholesale (i.e., Great Lakes Water Authority or GLWA) and local retail (i.e. Detroit Water & Sewerage Department or DWSD) activities which are further separated by the water system and the sewage disposal system.

Table 3 – Combined Net Cash Flows from Trust Receipts & Disbursements provides a summary of cash receipt collections and required MBO transfers by fiscal year. Fiscal year 2023 reflects five months of activity to date.

Water fund net receipts exceeded required disbursements by 10% through November 30, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 9% since July 1, 2018.

Sewer fund receipts exceeded required disbursements by 6% through November 30, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 4% since July 1, 2018.

Table 3 – Combined Net Cash Flows from Trust Receipts & Disbursements

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru Nov 30
Water					
1 Receipts	\$ 436,462,453	\$ 429,491,919	\$ 438,709,444	\$ 440,082,657	\$ 204,158,804
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	436,462,453	429,491,919	438,709,444	440,082,657	204,158,804
4 Disbursements	(386,925,081)	(394,013,522)	(409,420,607)	(410,990,961)	(185,370,398)
5 Receipts Net of Required Transfers	49,537,372	35,478,397	29,288,837	29,091,696	18,788,406
6 I&E Transfer	(56,102,080)	(25,719,751)	(31,991,687)	(26,622,862)	(8,702,217)
7 Net Receipts	\$ (6,564,708)	\$ 9,758,646	\$ (2,702,850)	\$ 2,468,834	\$ 10,086,189
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	113%	109%	107%	107%	110%
Sewer					
9 Receipts	\$ 733,083,541	\$ 755,150,915	\$ 781,082,620	\$ 763,260,193	\$ 327,452,651
10 MOU Adjustments	6,527,200	-	-	-	-
11 Adjusted Receipts	739,610,741	755,150,915	781,082,620	763,260,193	327,452,651
12 Disbursements	(724,424,942)	(721,112,326)	(731,701,654)	(735,957,751)	(307,804,337)
13 Receipts Net of Required Transfers	15,185,799	34,038,589	49,380,966	27,302,442	19,648,314
14 I&E Transfer	(22,547,700)	(19,096,200)	(40,504,727)	(37,651,788)	(5,208,533)
15 Shortfall Advance	-	-	-	-	-
16 Shortfall Repayment (principal)	9,367,355	17,542,669	18,206,431	8,296,578	-
17 Net Receipts	\$ (7,361,901)	\$ 32,485,058	\$ 27,082,670	\$ (2,052,768)	\$ 14,439,781
18 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	102%	105%	107%	104%	106%
Combined					
19 Receipts	\$ 1,169,545,994	\$ 1,184,642,834	\$ 1,219,792,064	\$ 1,203,342,850	\$ 531,611,455
20 MOU Adjustments	6,527,200	-	-	-	-
21 Adjusted Receipts	1,176,073,194	1,184,642,834	1,219,792,064	1,203,342,850	531,611,455
22 Disbursements	(1,111,350,023)	(1,115,125,848)	(1,141,122,261)	(1,146,948,712)	(493,174,735)
23 Receipts Net of Required Transfers	64,723,171	69,516,986	78,669,803	56,394,138	38,436,720
24 I&E Transfer	(78,649,780)	(44,815,951)	(72,496,414)	(64,274,650)	(13,910,750)
25 Shortfall Advance	-	-	-	-	-
26 Shortfall Repayment	9,367,355	17,542,669	18,206,431	8,296,578	-
27 Net Receipts	\$ (4,559,254)	\$ 42,243,704	\$ 24,379,820	\$ 416,066	\$ 24,525,970
28 <i>Ratio of Receipts to Required Disbursements (Line 21/Line 22)</i>	106%	106%	107%	105%	108%

APPENDIX

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$210,551.26	\$210,551.26	\$0.00	\$0.00	\$0.00
ALMONT VILLAGE	\$41,614.81	\$41,614.81	\$0.00	\$0.00	\$0.00
ASH TOWNSHIP	\$70,819.80	\$70,819.80	\$0.00	\$0.00	\$0.00
BELLEVILLE	\$28,075.42	\$28,075.42	\$0.00	\$0.00	\$0.00
BERLIN TOWNSHIP	\$ (12,915.39)	\$0.00	\$ (12,915.39)	\$0.00	\$0.00
BROWNSTOWN TOWNSHIP	\$319,335.01	\$319,335.01	\$0.00	\$0.00	\$0.00
BRUCE TOWNSHIP	\$27,039.14	\$27,039.14	\$0.00	\$0.00	\$0.00
BURTCHVILLE TOWNSHIP	\$29,107.91	\$29,107.91	\$0.00	\$0.00	\$0.00
CANTON TOWNSHIP	\$937,605.34	\$937,605.34	\$0.00	\$0.00	\$0.00
CENTER LINE	\$85,014.74	\$85,014.74	\$0.00	\$0.00	\$0.00
CHESTERFIELD TOWNSHIP	\$373,621.29	\$373,621.29	\$0.00	\$0.00	\$0.00
CLINTON TOWNSHIP	\$667,166.79	\$667,166.79	\$0.00	\$0.00	\$0.00
COMMERCE TOWNSHIP	\$306,750.71	\$306,750.71	\$0.00	\$0.00	\$0.00
DEARBORN	\$8,222,916.00	\$2,159,036.98	\$747,383.98	\$972,011.30	\$4,344,483.74
DEARBORN HEIGHTS	\$691,714.69	\$691,714.69	\$0.00	\$0.00	\$0.00
EASTPOINTE	\$139,458.69	\$139,458.69	\$0.00	\$0.00	\$0.00
ECORSE	\$112,178.54	\$112,178.54	\$0.00	\$0.00	\$0.00
FARMINGTON	\$89,263.54	\$89,263.54	\$0.00	\$0.00	\$0.00
FARMINGTON HILLS	\$779,677.94	\$779,677.94	\$0.00	\$0.00	\$0.00
FERNDAL	\$88,873.53	\$88,873.53	\$0.00	\$0.00	\$0.00
FLAT ROCK	\$231,413.39	\$231,413.39	\$0.00	\$0.00	\$0.00
FLINT	\$231,799.50	\$231,799.50	\$0.00	\$0.00	\$0.00
FRASER	\$104,621.34	\$104,621.34	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GARDEN CITY	\$137,563.61	\$137,563.61	\$0.00	\$0.00	\$0.00
GENESEE COUNTY DRAIN COMM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GIBRALTAR	\$29,825.09	\$29,825.09	\$0.00	\$0.00	\$0.00
GREATER LAPEER CUA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GREENWOOD TWP. (DTE)	\$162,286.35	\$162,286.35	\$0.00	\$0.00	\$0.00
GROSSE ILE TOWNSHIP	\$100,777.05	\$100,777.05	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$118,361.97	\$118,361.97	\$0.00	\$0.00	\$0.00
GROSSE POINTE SHORES	\$59,176.78	\$59,176.78	\$0.00	\$0.00	\$0.00
GROSSE POINTE WOODS	\$114,692.84	\$114,692.84	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$157,300.51	\$146,575.34	\$10,725.17	\$0.00	\$0.00
HARPER WOODS	\$83,989.32	\$83,989.32	\$0.00	\$0.00	\$0.00
HARRISON TWP	\$144,790.95	\$144,790.95	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$64,284.06	\$64,284.06	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$11,483,596.67	\$212,440.86	\$113,426.69	\$112,017.82	\$11,045,711.30
HURON TOWNSHIP	\$151,456.71	\$151,456.71	\$0.00	\$0.00	\$0.00
IMLAY CITY	\$136,623.51	\$136,623.51	\$0.00	\$0.00	\$0.00
IMLAY TOWNSHIP (CHAMPION BUS	\$801.59	\$801.59	\$0.00	\$0.00	\$0.00
INKSTER	\$117,078.10	\$117,078.10	\$0.00	\$0.00	\$0.00
KEEGO HARBOR	\$26,392.29	\$26,392.29	\$0.00	\$0.00	\$0.00
LAPEER	\$280,397.02	\$280,397.02	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$27,080.46	\$27,080.46	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LINCOLN PARK	\$437,079.28	\$433,704.28	\$3,375.00	\$0.00	\$0.00
LIVONIA	\$983,775.68	\$983,775.68	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$1,100,126.87	\$1,100,126.87	\$0.00	\$0.00	\$0.00
MADISON HEIGHTS	\$194,050.77	\$194,050.77	\$0.00	\$0.00	\$0.00
MAYFIELD TOWNSHIP (KAMAX)	\$8,798.07	\$7,342.48	\$1,455.59	\$0.00	\$0.00
MELVINDALE	\$122,715.70	\$122,715.70	\$0.00	\$0.00	\$0.00
NEW HAVEN	\$34,217.35	\$34,217.35	\$0.00	\$0.00	\$0.00
NOCWA	\$4,130,933.06	\$4,130,933.06	\$0.00	\$0.00	\$0.00
NORTHVILLE	\$144,103.82	\$143,203.82	\$900.00	\$0.00	\$0.00
NORTHVILLE TOWNSHIP	\$463,724.93	\$463,724.93	\$0.00	\$0.00	\$0.00
NOVI	\$810,507.18	\$810,507.18	\$0.00	\$0.00	\$0.00
OAK PARK	\$128,147.49	\$128,147.49	\$0.00	\$0.00	\$0.00
OAKLAND CO DR COM	\$11,037.99	\$11,037.99	\$0.00	\$0.00	\$0.00
PLYMOUTH	\$99,053.88	\$99,053.88	\$0.00	\$0.00	\$0.00
PLYMOUTH TOWNSHIP	\$394,499.56	\$394,499.56	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$283,115.48	\$283,115.48	\$0.00	\$0.00	\$0.00
RIVER ROUGE	\$118,970.80	\$118,970.80	\$0.00	\$0.00	\$0.00
RIVERVIEW	\$79,014.97	\$79,014.97	\$0.00	\$0.00	\$0.00
ROCKWOOD	\$24,802.20	\$24,802.20	\$0.00	\$0.00	\$0.00
ROMEO	\$20,281.30	\$20,281.30	\$0.00	\$0.00	\$0.00
ROMULUS	\$370,756.60	\$370,756.60	\$0.00	\$0.00	\$0.00
ROSEVILLE	\$460,810.50	\$460,810.50	\$0.00	\$0.00	\$0.00
ROYAL OAK TOWNSHIP	\$16,519.90	\$16,519.90	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SHELBY TOWNSHIP	\$2,707,302.69	\$2,707,302.69	\$0.00	\$0.00	\$0.00
SOCWA	\$4,374,450.97	\$4,374,450.97	\$0.00	\$0.00	\$0.00
SOUTH ROCKWOOD	\$10,266.95	\$10,266.95	\$0.00	\$0.00	\$0.00
SOUTHGATE	\$199,979.35	\$199,979.35	\$0.00	\$0.00	\$0.00
ST. CLAIR SHORES	\$576,080.90	\$576,080.90	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$2,794,857.98	\$2,794,857.98	\$0.00	\$0.00	\$0.00
SUMPTER TOWNSHIP	\$63,533.43	\$63,533.43	\$0.00	\$0.00	\$0.00
SYLVAN LAKE	\$20,470.93	\$20,470.93	\$0.00	\$0.00	\$0.00
TAYLOR	\$434,321.31	\$434,321.31	\$0.00	\$0.00	\$0.00
TRENTON	\$147,623.92	\$147,623.92	\$0.00	\$0.00	\$0.00
TROY (SEOC)	\$916,772.93	\$916,772.93	\$0.00	\$0.00	\$0.00
UTICA	\$50,671.35	\$50,671.35	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$634,804.88	\$634,804.88	\$0.00	\$0.00	\$0.00
WALLED LAKE	\$69,279.46	\$69,279.46	\$0.00	\$0.00	\$0.00
WARREN	\$1,871,663.96	\$1,871,663.96	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$436,905.40	\$436,905.40	\$0.00	\$0.00	\$0.00
WAYNE	\$578,971.74	\$578,971.74	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (C-O)	\$2,015,718.66	\$2,015,718.66	\$0.00	\$0.00	\$0.00
WESTLAND	\$1,159,469.58	\$1,159,469.58	\$0.00	\$0.00	\$0.00
WIXOM	\$220,894.23	\$220,894.23	\$0.00	\$0.00	\$0.00
WOODHAVEN	\$144,249.97	\$144,249.97	\$0.00	\$0.00	\$0.00
YCUA	\$1,925,488.90	\$1,925,488.90	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL WATER ACCOUNTS	\$58,963,001.74	\$41,624,426.54	\$864,351.04	\$1,084,029.12	\$15,390,195.04

GLWA Aged Accounts Receivable- SEWER ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CENTER LINE	\$86,899.50	\$86,899.50	\$0.00	\$0.00	\$0.00
DEARBORN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EVERGREEN-FARMINGTON	\$3,016,300.00	\$3,016,300.00	\$0.00	\$0.00	\$0.00
FARMINGTON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$336,800.00	\$336,800.00	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$41,869,586.94	\$451,700.00	\$451,700.00	\$451,700.00	\$40,514,486.94
MELVINDALE	\$131,200.00	\$131,200.00	\$0.00	\$0.00	\$0.00
OAKLAND COUNTY GWK DD	\$3,864,800.00	\$3,864,800.00	\$0.00	\$0.00	\$0.00
OMID	\$6,026,832.53	\$5,967,582.31	\$59,250.22	\$0.00	\$0.00
REDFORD TOWNSHIP	\$22,600.00	\$22,600.00	\$0.00	\$0.00	\$0.00
ROUGE VALLEY	\$4,660,900.00	\$4,660,900.00	\$0.00	\$0.00	\$0.00
SOUTH MACOMB SANITATION DIST	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WAYNE COUNTY-AREA #3	\$4,400.00	\$4,400.00	\$0.00	\$0.00	\$0.00
TOTAL SEWER ACCOUNTS	\$60,020,318.97	\$18,543,181.81	\$510,950.22	\$451,700.00	\$40,514,486.94

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$1,623.53	\$1,623.53	\$0.00	\$0.00	\$0.00
AUBURN HILLS (C-O)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AUBURN HILLS (C-O) ADMIN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AUBURN HILLS (E-F)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BERKLEY	\$3,182.62	\$3,182.62	\$0.00	\$0.00	\$0.00
BEVERLY HILLS	\$1,005.98	\$1,005.98	\$0.00	\$0.00	\$0.00
BINGHAM FARMS	\$1,088.32	\$1,088.32	\$0.00	\$0.00	\$0.00
BIRMINGHAM (E-F)	\$2,446.93	\$2,446.93	\$0.00	\$0.00	\$0.00
BIRMINGHAM (SEOC)	\$5,728.00	\$5,728.00	\$0.00	\$0.00	\$0.00
BLOOMFIELD HILLS	\$1,671.86	\$1,671.86	\$0.00	\$0.00	\$0.00
BLOOMFIELD TOWNSHIP	\$7,736.38	\$7,736.38	\$0.00	\$0.00	\$0.00
CANTON TOWNSHIP	\$85.92	\$85.92	\$0.00	\$0.00	\$0.00
CENTER LINE	\$6,449.37	\$6,449.37	\$0.00	\$0.00	\$0.00
CHARTER TOWNSHIP OF INDEPENI	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CHESTERFIELD TOWNSHIP	\$12,957.81	\$12,957.81	\$0.00	\$0.00	\$0.00
CITY OF FARMINGTON (E-F)	\$202.27	\$202.27	\$0.00	\$0.00	\$0.00
CITY OF FERNDAL	\$8,967.90	\$8,967.90	\$0.00	\$0.00	\$0.00
CITY OF ROCHESTER	\$3,750.05	\$3,750.05	\$0.00	\$0.00	\$0.00
CLARKSTON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CLARKSTON (C-O) ADMIN	\$139.56	\$139.56	\$0.00	\$0.00	\$0.00
CLAWSON	\$6,270.89	\$6,270.89	\$0.00	\$0.00	\$0.00
CLINTON TOWNSHIP	\$27,134.61	\$27,134.61	\$0.00	\$0.00	\$0.00
DEARBORN	\$ (1,177.82)	\$0.00	\$ (1,177.82)	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
DEARBORN HEIGHTS	\$9,757.29	\$9,757.29	\$0.00	\$0.00	\$0.00
DETROIT METRO WC AIRPORT	\$107.40	\$107.40	\$0.00	\$0.00	\$0.00
EASTPOINTE	\$6,499.49	\$6,499.49	\$0.00	\$0.00	\$0.00
FARMINGTON	\$4,065.09	\$4,065.09	\$0.00	\$0.00	\$0.00
FARMINGTON HILLS	\$25,353.56	\$25,353.56	\$0.00	\$0.00	\$0.00
FRASER	\$4,994.10	\$4,994.10	\$0.00	\$0.00	\$0.00
GARDEN CITY	\$6,204.14	\$6,204.14	\$0.00	\$0.00	\$0.00
GROSSE POINTE	\$1,591.31	\$1,591.31	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$2,103.25	\$2,103.25	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$1,190.35	\$1,190.35	\$0.00	\$0.00	\$0.00
GROSSE POINTE SHORES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE WOODS	\$2,985.72	\$2,985.72	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$4,202.92	\$4,202.92	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$1,918.88	\$1,918.88	\$0.00	\$0.00	\$0.00
HARRISON TWP	\$152.15	\$152.15	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$3,324.03	\$3,324.03	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$1,838,245.70	\$8,051.42	\$4,025.71	\$4,081.20	\$1,822,087.37
HUNTINGTON WOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
INDEPENDENCE (C-O) ADMIN	\$1,296.21	\$1,296.21	\$0.00	\$0.00	\$0.00
INKSTER	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
KEEGO HARBOR	\$710.63	\$710.63	\$0.00	\$0.00	\$0.00
LAKE ORION	\$809.08	\$809.08	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LATHRUP	\$1,415.89	\$1,415.89	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$327.57	\$327.57	\$0.00	\$0.00	\$0.00
LIVONIA	\$41,107.35	\$41,107.35	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$207.64	\$207.64	\$0.00	\$0.00	\$0.00
MADISON HEIGHTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MELVINDALE	\$3,540.62	\$3,540.62	\$0.00	\$0.00	\$0.00
NEW HAVEN	\$1,238.68	\$1,238.68	\$0.00	\$0.00	\$0.00
NORTHVILLE	\$2,357.43	\$2,357.43	\$0.00	\$0.00	\$0.00
NORTHVILLE TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NOVI	\$17,876.73	\$17,876.73	\$0.00	\$0.00	\$0.00
OAK PARK	\$7,303.16	\$7,303.16	\$0.00	\$0.00	\$0.00
OAKLAND TOWNSHIP	\$458.24	\$458.24	\$0.00	\$0.00	\$0.00
ORCHARD LAKE VILLAGE	\$381.27	\$381.27	\$0.00	\$0.00	\$0.00
ORION TOWNSHIP (C-O)	\$4,469.63	\$4,469.63	\$0.00	\$0.00	\$0.00
ORION TOWNSHIP (C-O) ADMIN	\$497.56	\$497.56	\$0.00	\$0.00	\$0.00
OXFORD TOWNSHIP	\$2,158.74	\$2,158.74	\$0.00	\$0.00	\$0.00
OXFORD VILLAGE	\$1,267.32	\$1,267.32	\$0.00	\$0.00	\$0.00
PLEASANT RIDGE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PLYMOUTH	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PLYMOUTH TOWNSHIP	\$275.66	\$275.66	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$12,572.96	\$12,572.96	\$0.00	\$0.00	\$0.00
ROCHESTER HILLS	\$18,932.83	\$18,932.83	\$0.00	\$0.00	\$0.00
ROMULUS	\$787.60	\$787.60	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ROSEVILLE	\$14,819.41	\$14,819.41	\$0.00	\$0.00	\$0.00
ROYAL OAK	\$13,874.29	\$13,874.29	\$0.00	\$0.00	\$0.00
ROYAL OAK TOWNSHIP	\$968.39	\$968.39	\$0.00	\$0.00	\$0.00
SHELBY TOWNSHIP	\$125.30	\$125.30	\$0.00	\$0.00	\$0.00
SOUTHFIELD (E-F)	\$28,742.03	\$28,742.03	\$0.00	\$0.00	\$0.00
SOUTHFIELD (SEOC)	\$3,361.62	\$3,361.62	\$0.00	\$0.00	\$0.00
ST. CLAIR SHORES	\$12,216.75	\$12,216.75	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$32,259.38	\$32,259.38	\$0.00	\$0.00	\$0.00
TROY (E-F)	\$386.64	\$386.64	\$0.00	\$0.00	\$0.00
TROY (SEOC)	\$38,300.63	\$38,300.63	\$0.00	\$0.00	\$0.00
UTICA	\$3,069.85	\$3,069.85	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$2,130.10	\$2,130.10	\$0.00	\$0.00	\$0.00
VILLAGE OF FRANKLIN	\$66.23	\$66.23	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$1,679.02	\$1,679.02	\$0.00	\$0.00	\$0.00
WATERFORD TOWNSHIP DPW	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WATERFORD TOWNSHIP DPW (ADMI	\$3,191.77	\$3,191.77	\$0.00	\$0.00	\$0.00
WAYNE	\$5,053.17	\$5,053.17	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (C-O)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (E-F)	\$12,929.63	\$12,929.63	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP. (C-O) A	\$492.25	\$492.25	\$0.00	\$0.00	\$0.00
WESTLAND	\$23,049.83	\$23,049.83	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL IWC ACCOUNTS	\$2,318,668.65	\$489,652.19	\$2,847.89	\$4,081.20	\$1,822,087.37

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
3M COMPANY (MINNESOTA MINING	\$988.02	\$988.02	\$0.00	\$0.00	\$0.00
A & R PACKING CO., LLC	\$1,551.54	\$1,551.54	\$0.00	\$0.00	\$0.00
AACTRON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ACADEMY PACKING CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ACME RUSTPROOF	\$105.75	\$77.45	\$28.30	\$0.00	\$0.00
ADORING PET FUNERAL HOME	\$44.13	\$44.13	\$0.00	\$0.00	\$0.00
ADVANCE ENGINEERING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AEVITAS SPECIALITY SERVICES	\$548.31	\$548.31	\$0.00	\$0.00	\$0.00
ALEXANDER & HORNUNG	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALEXANDER & HORNUNG	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALL CHEM CORP, LLC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALPHA STAMPING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AMERICAN WASTE TECH INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AMERITI MFG. CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
APPLIED TECHNOLOGY INDUSTRIE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ATWATER IN THE PARK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AUTOMOTIVE FINISH	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AXLE BREWING COMPANY, LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B. NEKTAR MEADERY	\$0.65	\$0.65	\$0.00	\$0.00	\$0.00
BAFFIN BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BARON INDUSTRIES	\$549.81	\$549.81	\$0.00	\$0.00	\$0.00
BARTZ BAKERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BASTONE BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
BATCH BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BAYS MICHIGAN CORPORATION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BEIRUT BAKERY, INC.	\$37.00	\$0.00	\$0.00	\$0.00	\$37.00
BETTER MADE SNACK FOOD	\$66,945.00	\$66,945.00	\$0.00	\$0.00	\$0.00
BLACK LOTUS BREWING CO.	\$61.25	\$0.00	\$0.00	\$0.00	\$61.25
BOZEK'S MARKET	\$0.50	\$0.50	\$0.00	\$0.00	\$0.00
BREW DETROIT	\$5,573.22	\$5,573.22	\$0.00	\$0.00	\$0.00
BROADWAY MKT CORNED BEEF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BROOKS BREWING, LLC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BROWN IRON BREWHOUSE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CADILLAC STRAITS BREWING CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CANTON BREW WORKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CAPITAL REPRODUCTIONS	\$30.54	\$4.47	\$0.00	\$26.07	\$0.00
CF BURGER CREAMERY	\$16,297.33	\$16,297.33	\$0.00	\$0.00	\$0.00
CHILANGO'S BAKERY	\$65.43	\$34.50	\$11.50	\$9.20	\$10.23
CINTAS CORP. - MACOMB TWP.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$10,178.24	\$10,178.24	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$7,935.02	\$7,935.02	\$0.00	\$0.00	\$0.00
CITY LAUNDRY, INC.	\$12.36	\$8.66	\$3.70	\$0.00	\$0.00
CLASSIC CONTAINER CORP.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CLEAN EARTH OF MICHIGAN, LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COCA-COLA REFRESHMENTS USA,	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COUNTRY FRESH DAIRY CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CROSS CHEMICAL COMPANY, INC.	\$572.05	\$451.21	\$0.00	\$120.84	\$0.00
DANA CONTAINER, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DARLING INGREDIENTS, INC.	\$9,166.14	\$9,166.14	\$0.00	\$0.00	\$0.00
DAVE'S SAUSAGE FACTORY 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DEARBORN BREWING	\$32.43	\$17.87	\$0.00	\$0.00	\$14.56
DEARBORN SAUSAGE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DEARBORN SAUSAGE CO., INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT BEER CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT LINEN SERVICE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT METRO WC AIRPORT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT RIVERTOWN BREWERY CC	\$661.87	\$661.87	\$0.00	\$0.00	\$0.00
DETROIT SAUSAGES CO INC	\$31.33	\$22.38	\$8.95	\$0.00	\$0.00
DETRONIC INDUSTRIES, INC.	\$86.62	\$86.62	\$0.00	\$0.00	\$0.00
DIFCO LABORATORIES, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DIVERSIFIED CHEM TECH. INC.	\$83.25	\$83.25	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$3,356.68	\$3,356.68	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$1,434.40	\$1,434.40	\$0.00	\$0.00	\$0.00
DOWNEY BREWING COMPANY	\$32.07	\$32.07	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
E & E MANUFACTURING CO, PLAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E & E MANUFACTURING CO, PLAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E.W. GROBBEL'S SONS, INC.	\$4,199.81	\$4,199.81	\$0.00	\$0.00	\$0.00
EASTERN MARKET BREWING COMP	\$65.39	\$65.39	\$0.00	\$0.00	\$0.00
ENVIROSOLIDS, L.L.C.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$509.03	\$509.03	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$4,285.10	\$4,285.10	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$ (0.46)	\$0.00	\$ (0.46)	\$0.00	\$0.00
EQ DETROIT, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ETON ST BREWERY- GRIFFIN CLA	\$1,961.46	\$1,961.46	\$0.00	\$0.00	\$0.00
EXTRUDE HONE CORPORATION	\$518.03	\$231.99	\$82.32	\$97.29	\$106.43
EXTRUDEHODE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FARMINGTON BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FAYGO BEVERAGES, INC.	\$3,916.47	\$3,916.47	\$0.00	\$0.00	\$0.00
FITZGERALD FINISHING LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FIVES CINETIC CORP.	\$4,344.17	\$0.00	\$4,344.17	\$0.00	\$0.00
FORD NEW MODEL PROGRAM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FOUNDERS BREWING COMPANY	\$12.61	\$12.61	\$0.00	\$0.00	\$0.00
FRESH-PAK	\$478.25	\$478.25	\$0.00	\$0.00	\$0.00
FRESH-PAK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GENERAL LINEN SUPPLY CO.	\$2,573.09	\$2,573.09	\$0.00	\$0.00	\$0.00
GENERAL MOTORS, LLC ROMULUS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GLOBAL TITANIUM, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$19.19	\$19.19	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GREAT BARABOO BREWING CO.	\$167.00	\$88.58	\$0.00	\$0.00	\$78.42
HACIENDA MEXICAN FOODS	\$2,079.16	\$1,231.96	\$846.20	\$1.00	\$0.00
HENKEL CORPORATION	\$191.92	\$74.74	\$0.00	\$117.18	\$0.00
HENRY FORD MACOMB HOSPITAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HOME STYLE FOOD INC.	\$1,322.54	\$1,322.54	\$0.00	\$0.00	\$0.00
HOMEOWNED BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HOODS CLEANERS	\$211.33	\$0.00	\$0.00	\$0.00	\$211.33
HOUGHTON INTERNATIONAL INC.	\$206.34	\$77.73	\$29.52	\$32.47	\$66.62
HOUGHTON INTERNATIONAL INC.	\$132.68	\$61.01	\$21.65	\$31.49	\$18.53
HOUGHTON INTERNATIONAL INC.	\$1,419.56	\$1,074.55	\$345.01	\$0.00	\$0.00
HUNTINGTON CLEANERS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
IDP, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
INDUSTRIAL METAL COATING	\$750.62	\$750.62	\$0.00	\$0.00	\$0.00
INTRASTATE DISTRIBUTORS	\$703.29	\$703.29	\$0.00	\$0.00	\$0.00
ISLAMIC SLAUGHTER HOUSE	\$448.64	\$448.64	\$0.00	\$0.00	\$0.00
ITALIAN BUTTER BREAD STICKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
JAMEX BREWING CO.	\$23.98	\$23.98	\$0.00	\$0.00	\$0.00
JELD-WEN, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
KAR NUT PRODUCTS	\$1,234.96	\$1,234.96	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
KOWALSKI SAUSAGES, CO.	\$68.36	\$68.36	\$0.00	\$0.00	\$0.00
KUHNHENN BREWING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$522.66	\$522.66	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LEAR CORPORATION DBA EAGLE C	\$1,714.27	\$1,714.27	\$0.00	\$0.00	\$0.00
LIBERTY STREET PROD. BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LILY'S SEAFOOD GRILL & BREWE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LIQUID ENVIRONMENTAL SOLUTIC	\$2,608.30	\$2,608.30	\$0.00	\$0.00	\$0.00
MACDERMID, INC.	\$192.28	\$192.28	\$0.00	\$0.00	\$0.00
MCCLURE'S PICKLES	\$601.52	\$601.52	\$0.00	\$0.00	\$0.00
MCNICHOLS POLISHING & ANODIZ	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MELLO MEATS INC, - KUBISCH S	\$22.37	\$22.37	\$0.00	\$0.00	\$0.00
METROPOLITAN BAKERY	\$39.34	\$39.34	\$0.00	\$0.00	\$0.00
MIBA HYDRAMECHANICA CORP.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MICHIGAN DAIRY	\$127,780.53	\$127,780.53	\$0.00	\$0.00	\$0.00
MICHIGAN PROD. MACHINING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MICHIGAN SOY PRODUCTS CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MIDWEST WIRE PRODUCTS, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MILANO BAKERY	\$423.71	\$423.71	\$0.00	\$0.00	\$0.00
MILTON CHILI CO.	\$31.11	\$31.11	\$0.00	\$0.00	\$0.00
MINNIE MARIE BAKERS, INC	\$1,100.49	\$1,100.49	\$0.00	\$0.00	\$0.00
MISTER UNIFORM & MAT RENTALS	\$ (16.79)	\$0.00	\$0.00	\$0.00	\$ (16.79)

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
MOTOR CITY BREWING WORKS	\$ (46.13)	\$0.00	\$ (46.13)	\$0.00	\$0.00
NATIONAL CHILI COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIONAL CHILI COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIONAL CHILI COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NEAPCO DRIVELINES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NORTH CENTER BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NORTHERN LAKES SEAFOOD & MEAT	\$31.25	\$31.25	\$0.00	\$0.00	\$0.00
OAKWOOD BAKERY	\$90.79	\$90.79	\$0.00	\$0.00	\$0.00
OLIVER HATCH CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PARKER'S HILLTOP BREWER & SONS	\$54.68	\$54.68	\$0.00	\$0.00	\$0.00
PELLERITO FOODS INC.	\$ (2.04)	\$0.00	\$ (2.04)	\$0.00	\$0.00
PEPSI COLA, INC.	\$31,819.88	\$31,819.88	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PERSONAL UNIFORM SERVICE, INC.	\$32.65	\$32.65	\$0.00	\$0.00	\$0.00
PETRO ENVIRON TECH, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PINE TREE ACRES, INC.	\$17,371.38	\$17,371.38	\$0.00	\$0.00	\$0.00
PLATING SPEC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
POWER VAC OF MICHIGAN, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PREMIER PLATING, LLC	\$1,645.15	\$1,645.15	\$0.00	\$0.00	\$0.00
PRODUCTION SPRING, LLC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
QUALA SERVICES, LLC	\$ (1.18)	\$0.00	\$0.00	\$ (1.18)	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
RAY'S ICE CREAM CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
RED SPOT PAINT #409139	\$11.21	\$11.21	\$0.00	\$0.00	\$0.00
RIVER ROUGE BREWING COMPANY	\$440.60	\$0.00	\$0.00	\$0.00	\$440.60
ROAK BREWING CO. LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ROCHESTER MILLS BEER COMPANY	\$138.57	\$138.57	\$0.00	\$0.00	\$0.00
ROCHESTER MILLS PROD BREWERY	\$866.35	\$866.35	\$0.00	\$0.00	\$0.00
ROYAL OAK BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
RTT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SEAFARE FOODS, INC.	\$70.52	\$70.52	\$0.00	\$0.00	\$0.00
SECOND NATURE (SANDERS)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SHERWOOD BREWING COMPANY	\$87.08	\$39.96	\$0.00	\$0.00	\$47.12
SMITH-WATKINS, LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SPRAYTEK, INC.	\$14.52	\$0.00	\$0.00	\$0.00	\$14.52
SUPERNATURAL SPIRITS & BREWI	\$72.93	\$72.93	\$0.00	\$0.00	\$0.00
SWEETHEART BAKERY, INC.	\$333.35	\$107.97	\$56.06	\$48.79	\$120.53
THE CROWN GROUP-LIVONIA PLAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
THERMO FISHER SCIENTIFIC	\$29,318.86	\$29,318.86	\$0.00	\$0.00	\$0.00
TOM LAUNDRY CLEANERS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TRAFFIC JAM & SNUG	\$ (31.16)	\$0.00	\$0.00	\$0.00	\$ (31.16)
TURRI'S ITALIAN FOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TURRI'S ITALIAN FOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
U-METCO, INC.	\$711.82	\$711.82	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
UNCLE RAYS SNACKS, LLC	\$35,755.41	\$35,755.41	\$0.00	\$0.00	\$0.00
UNCLE RAYS SNACKS, LLC	\$1,719.78	\$1,719.78	\$0.00	\$0.00	\$0.00
UNIQUE LINEN SERVICES, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
UNITED FISH DISTRIBUTORS	\$0.59	\$0.59	\$0.00	\$0.00	\$0.00
UNITED LINEN SERVICE, LLC.	\$9.00	\$9.00	\$0.00	\$0.00	\$0.00
UNITED MEAT & DELI	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
URBANREST BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
US ECOLOGY MICHIGAN	\$391.31	\$391.31	\$0.00	\$0.00	\$0.00
US ECOLOGY ROMULUS, INC.	\$3,035.72	\$3,035.72	\$0.00	\$0.00	\$0.00
USHER OIL SERVICES	\$1,586.76	\$1,586.76	\$0.00	\$0.00	\$0.00
VALICOR ENVIROMENTAL SERVICE	\$150.33	\$150.33	\$0.00	\$0.00	\$0.00
VALICOR ENVIRONMENTAL SERVIC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
VAUGHAN INDUSTRIES, INC.	\$48.45	\$48.45	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS	\$8,277.33	\$8,277.33	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS, INC.	\$283.32	\$283.32	\$0.00	\$0.00	\$0.00
VERNOR FOOD PRODUCTS	\$148.32	\$68.44	\$41.48	\$38.40	\$0.00
WIGLEY'S MEAT PROCESS	\$342.34	\$342.34	\$0.00	\$0.00	\$0.00
WINTER SAUSAGE MFG. CO.	\$950.96	\$950.96	\$0.00	\$0.00	\$0.00
WINTER SAUSAGE MFG. CO.	\$158.86	\$158.86	\$0.00	\$0.00	\$0.00
WOLVERINE PACKING CO	\$1,877.90	\$1,877.90	\$0.00	\$0.00	\$0.00
WOLVERINE PACKING CO.	\$2,311.35	\$2,311.35	\$0.00	\$0.00	\$0.00
WOODWARD AVENUE BREWERS	\$144.24	\$0.00	\$0.00	\$0.00	\$144.24

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL POLLUTANT SURCHARGE ACCOUNTS	\$433,466.30	\$425,851.09	\$5,770.23	\$521.55	\$1,323.43

City of Highland Park Billings and Collections

	Water	Sewer	IWC	Cumulative Total
June 30, 2012 Balance	\$ -	\$ 10,207,956	\$ 852,987	\$ 11,060,943
FY 2013 Billings	485,887	4,987,635	154,444	5,627,966
FY 2013 Payments	(65,652)	(2,206,211)	-	(2,271,863)
				-
June 30, 2013 Balance	\$ 420,235	\$ 12,989,380	\$ 1,007,431	\$ 14,417,046
FY 2014 Billings	1,004,357	6,980,442	161,951	8,146,750
FY 2014 Payments	-	(1,612,633)	-	(1,612,633)
				-
June 30, 2014 Balance	\$ 1,424,592	\$ 18,357,189	\$ 1,169,382	\$ 20,951,163
FY 2015 Billings	1,008,032	5,553,123	165,739	6,726,894
FY 2015 Payments	-	(1,444,623)	-	(1,444,623)
				-
June 30, 2015 Balance	\$ 2,432,625	\$ 22,465,689	\$ 1,335,121	\$ 26,233,435
FY 2016 Billings	1,157,178	5,612,167	106,431	6,875,776
FY 2016 Payments	-	(2,022,335)	-	(2,022,335)
				-
June 30, 2016 Balance	\$ 3,589,803	\$ 26,055,521	\$ 1,441,551	\$ 31,086,875
FY 2017 Billings	1,245,267	5,802,000	101,999	7,149,265
FY 2017 Payments	-	(2,309,186)	-	(2,309,186)
				-
June 30, 2017 Balance	\$ 4,835,070	\$ 29,548,335	\$ 1,543,550	\$ 35,926,954
FY 2018 Billings	1,277,179	5,657,101	80,472	7,014,752
FY 2018 Payments	-	(4,108,108)	-	(4,108,108)
				-
June 30, 2018 Balance	\$ 6,112,248	\$ 31,097,327	\$ 1,624,022	\$ 38,833,597
FY 2019 Billings	1,238,797	5,617,100	51,220	6,907,117
FY 2019 Payments	-	(5,241,583)	-	(5,241,583)
				-
June 30, 2019 Balance	\$ 7,351,045	\$ 31,472,844	\$ 1,675,243	\$ 40,499,132
FY 2020 Billings	1,182,639	5,665,400	47,097	6,895,136
FY 2020 Payments	-	(3,026,117)	-	(3,026,117)
				-
June 30, 2020 Balance	\$ 8,533,684	\$ 34,112,127	\$ 1,722,340	\$ 44,368,151
FY 2021 Billings	1,185,506	5,702,000	47,423	6,934,929
FY 2021 Payments	-	(2,783,552)	-	(2,783,552)
				-
June 30, 2021 Balance	9,719,190	37,030,575	1,769,763	48,519,528
FY 2022 Billings	1,222,260	5,389,300	48,322	6,659,882
FY 2022 Payments	-	(1,788,828)	-	(1,788,828)
				-
June 30, 2022 Balance	\$ 10,941,450	\$ 40,631,047	\$ 1,818,085	\$ 53,390,582
FY 2023 Billings (5 Months)	542,147	2,253,200	20,161	2,815,508
FY 2023 Payments (5 Months)	-	(1,014,660)	-	(1,014,660)
				-
Balance as of November 30, 2022	\$ 11,483,597	\$ 41,869,587	\$ 1,838,246	\$ 55,191,430



Financial Services Audit Committee Communication

Date: February 27~~24~~, 2023

To: Great Lakes Water Authority Audit Committee

From: Megan Savage, Vendor Outreach Coordinator

Re: Business Inclusion & Diversity Program Update

Background: On November 25, 2020, the GLWA Board of Directors approved an amendment to the Procurement Policy allowing for the formation of a new Business Inclusion & Diversity (B.I.D.) Program within the Financial Services' Procurement Group. The B.I.D. Program Team, which includes internal GLWA Team Members as well as external consultants, executed a Phase I launch of the program on February 1, 2021 and a Phase II launch on July 1, 2021.

Analysis: This month we present tables to recap B.I.D. Program activity from the date of the program launch on February 1, 2021 through January 31, 2023 for procurements budgeted to exceed \$1 million.

Table 1: B.I.D. Eligible Procurements as of January 31, 2023

Table 1 provides an overview of the total number of B.I.D. Program-eligible Procurements awarded, in evaluation, or advertised as active opportunities in GLWA's Bonfire Procurement Portal. Each vendor who submits a response to a B.I.D. Program-eligible procurement must also submit a Business Inclusion and Diversity Plan. The total number of Diversity Plans that GLWA has received for B.I.D.-eligible procurements that have been awarded and that are in evaluation is also provided.

	Awarded	In Evaluation Phase	Active (Advertised)	Total
Procurements Requiring B.I.D. Submittals	58	9	1	68
Total Number of Diversity Plans Submitted	149	29	n/a	178

Table 2: Scored Criteria for Awarded Procurements

Table 2 provides a breakdown of the percentage of B.I.D. Program-eligible procurements awarded thus far that met the B.I.D. Program scored criteria. This scored criteria is based on

whether the vendor has a business presence in the state of Michigan, GLWA's Member Partner service area, or a disadvantaged municipality within GLWA's service area.

	Procurements Awarded Meeting B.I.D. Criteria as a % of Total \$ Awards	Total Contract Amount (in millions)
Michigan Location	93%	\$568.7
Member Partner Service Area	88%	\$526.5
Disadvantaged Service Area	53%	\$266.4

Table 3: Member Partner Communities – Revised 2.27.23

Table 3 provides a breakdown of the number of awarded contracts to vendors located in GLWA's Member Partner Service area.

	Total Contract Count	Total Contract Amount (in millions)
City of Detroit	25 30	\$209.8 \$248.8
City of Auburn Hills	10 5	\$115.9 \$76.9
City of Novi	3	\$94.4
City of Livonia	3	\$59.6
City of Taylor	1	\$12.6
City of Troy	2	\$11.9
City of Southfield	2	\$6.3
City of Madison Heights	1	\$6.0
City of Warren	1	\$3.6
City of Farmington Hills	1	\$3.6
City of Riverview	1	\$1.9
Harrison Township	1	\$1.0
Total	51	\$526.5

Table 4: Economically Disadvantaged Communities

Table 4 provides a breakdown of the number of awarded contracts to vendors who have a business presence in an economically disadvantaged GLWA service territory area. This means that the vendor is located in a municipality designated as having one of the five lowest median household incomes in that respective county as defined by the U.S. Census Bureau every five years.

	Total Contract Count	Total Contract Amount (in millions)
Detroit	30	\$248.8

Table 5: Non-Scored Criteria - Disadvantaged, Minority-owned, Women-owned, and Small Businesses

Table 5 provides a breakdown of the percentage of B.I.D. Program-eligible procurements awarded thus far that met the B.I.D. Program Non-Scored Criteria. This Non-Scored Criteria refers to any diversity certifications that the vendor may hold as a Disadvantaged Business Enterprise (DBE), Minority-Owned Business Enterprise (MBE), Women-Owned Business Enterprise (WBE), or Small Business Enterprise (SBE).

	Procurements Awarded as a % of Total \$ Awards	Total Contract Amount (in millions)
Awarded to Disadvantaged, Minority- owned, Women-owned, and Small Businesses	41%	\$292.5

Table 6: Diversity Certification Percentages

Table 6 provides a breakdown of the vendors who met the certification criteria as SBE (Small Business Enterprise), DBE (Disadvantaged Business Enterprise), MBE (Minority-owned Business Enterprise), and/or WBE (Women-owned Business Enterprise). Note that some firms may have multiple certifications.

	SBE	DBE	MBE	WBE
Percentage of Awarded Procurements to SBE, DBE, MBE, and WBE	10%	79%	31%	9%
Total Contract Amount (in millions)	\$18.5	\$333.6	\$78.4	\$65.2

Table 7: Overall Contracts Awarded

Table 7 provides a breakdown of overall dollars awarded under the B.I.D. Program thus far, distinguishing between firms that met the B.I.D. Program certification criteria (non-scored criteria) and firms that met the three B.I.D. Program geographic criteria (scored criteria).

	Total Contract Count	Total Contract Amount (in millions)
Eligible Procurements	58	\$717.0
Firms that met the certification criteria (non-scored criteria)	29	\$292.5
Firms that met the three geographic criteria (scored criteria)	31	\$266.4

Other activities completed this month to expand awareness of the B.I.D. Program and to foster the development of effective diversity plans included the following.

- Preparing presentation and handout materials for the Michigan Department of Transportation (MDOT) 42nd Annual Small Business Development Conference on March 13-14 at the Double Tree Hilton in Detroit as well as Wayne State Procurement Technical Assistance Center (PTAC) Meet the Buyers event on March 29.
- Working with Bonfire to develop options for tracking and reporting on GLWA's efforts to update our vendor database to include information on diversity certifications.
- Continued attendance of the B.I.D. Program Liaison at all Pre-Bid and Pre-Proposal solicitation meetings to overview B.I.D. Program requirements and answer any questions from vendors/contractors.

Additionally, the following tasks remain at the top of our priority list.

- Continued evaluation of the insurance and bonding requirements for small, minority-owned, and disadvantaged business enterprises.
- Identifying meaningful reporting and performances measures.

Proposed Action: Receive and file this report.



Financial Services Audit Committee Communication

Date: February 24, 2023

To: Great Lakes Water Authority Audit Committee

From: Matthew S. Lane, MPA, Charges Outreach and Modeling Manager

Re: Charges Outreach & Modeling Update

Background: The Charges Outreach & Modeling (CO&M) Team was established in Fiscal Year 2023 as part of the Financial Management & Planning Group to facilitate internal communication and external outreach with GLWA Member Partners as it relates to the charge methodology and charge-related financial matters. This team also serves as liaison between GLWA and third-party consultants in the development, maintenance and review of the annual water and sewer charges.

Analysis: This month we present an update on the initiatives CO&M has been focused on, including charges rollout, work group meetings, and ongoing outreach efforts.

1. FY 2023 Charge Modifications: As of this date, there have been no charge modifications. There were no exceedances identified resulting from the 2022 Max Day/Peak Hour calculations.
2. FY 2024 Charges Rollout Update: Great Lakes Water Authority cross-functional teams have **completed** the Fiscal Year 2024 Charges Rollout Schedule.
(Attendance data provided by GLWA Outreach)
 - a. Charges Rollout Meeting #1-CIP took place on Wednesday, October 19, 2022, at 1:00 p.m. via Zoom. Attendance included 47 individuals representing 32 Member Partners.
 - b. Charges Rollout #2 Units of Service took place on Wednesday, November 16, 2022 at 1:00 p.m. via Zoom. Attendance, excluding staff from GLWA, included 40 individuals representing 32 Member Partners. After presenting the proposed Unites of Service, Member Partners were invited to sign up for one-on-one discussions with CO&M. The team met virtually with six Member Partners.
 - c. Charges Rollout Meeting #3- Proposed FY 2024 Revenue Requirement and Charges: Thursday, January 12, 2023, at 9:00 a.m. via Zoom. Attendance, excluding staff from GLWA, included 101 individuals representing 64 Member Partners.
 - d. Charges Rollout One-on-Ones: Member Partners had the opportunity to have individual meetings, January 13, 2023, through January 18, 2023, to discuss charges in more detail. The Charges Outreach and Modeling Team met with 10 Member Partners to discuss their charges.
 - e. Charges Rollout Meeting #4- Feedback on Service Charges and Review of Proposed FY 2024 Revenue Requirement. Attendance, excluding staff from GLWA, included 50 individuals representing 37 Member Partners.

3. Contract Alignment Update: The Contract Alignment Process (CAP) has concluded. CAP is facilitated by a cross-functional negotiation team (CAP Team) led by the General Counsel's office. At the time of the drafting of this update, most member partner contracts have been settled, with exception of non-master metered member partners and a few who have not yet submitted official resolutions. The CAP Team has been working through the alignment process since March 2022. CO&M is represented on the CAP Team and supports CAP efforts in any capacity needed.
4. Professional Development/Outreach Activities: CO&M recently contributed a feature article to the Winter 2023 Edition of 'Water Works News', a publication distributed to water and sewer professionals across the state of Michigan by the Michigan Section of the American Water Works Association (AWWA). The team collaborated with GLWA Organization Development and Public Affairs on the article titled "*Water Workforce Resilience: Navigating a Silver Tsunami*" highlighting the efforts of both GLWA and the City of Grand Rapids to build a workforce of Water Warriors and help address the challenges of attracting and retaining talent in the water sector.
5. Additional CO&M updates include the following:
 - a. Worked as part of a cross-functional GLWA group that held one-on-one office hour sessions with thirteen Member Partners to discuss FY 2024 Proposed Charges in further detail between GLWA Charges Rollout meetings #3 and #4.
 - b. Completed the mailing of the FY 2024 water and wastewater charge sheets to each Member Partner by January 23, 2023 (actually completed January 20, 2023) with the assistance of other teams within the Financial Services Area in accordance with GLWA Wholesale Customer Model Water Contract Section 7.02, which states that, "[n]ot less than thirty calendar days prior to the hearing required by Act 279, the Board shall provide Customer with written notice of a proposed rate and the underlying data used to calculate the rate..."
 - c. Continued to support the Water Charges Methodology Review Subgroup and maintain a presence at both virtual and in-person meetings. The most recent meeting was held at the University of Michigan - Detroit Center.
 - d. Attended the service kick-off meeting with representatives from the City of Mount Clemens. Charges Outreach and Modeling will serve as the Financial Services Area representative on the cross-functional project team from GLWA assigned to assist the city as it pursues its transition to the GLWA regional system.
 - e. CO&M will begin regularly attending meetings of the Water Analytical Work Group, Wastewater Analytical Task Force and other Member Partner technical advisory committees, as needed.

Look Ahead:

1. Water Charges Work Group
 - a. This group is made up of Member Partners and staff from GLWA. It was established to review water charge methodology and to make recommendations regarding potential changes.

- i. There is also a Water Charges Methodology Review Subgroup (Subgroup) made up of interested volunteer Member Partners convened to work closely with GLWA on the technical analysis and provide input on charges scenarios. The Subgroup meets twice per month and reports its findings and updates to the Charges Work Group every other month. We received valuable feedback from Member Partners at-large during the Charges Rollout process that will help guide future discussions for this subgroup.
2. Other Member Partner Technical Advisory Committees
 - a. CO&M will begin regularly attending meetings of the Water Analytical Work Group, Wastewater Analytical Task Force and other Member Partner technical advisory committees, as-needed.
3. Water Charges Third-Party Rate Consultant
 - a. Interviews with benchmark utilities have wrapped up. Raftelis provided a benchmarking presentation to the subgroup at the in-person meeting on Friday, February 3, 2023 which was held at the University of Michigan- Detroit Center.
 - b. A follow-up discussion regarding the benchmark utilities was held at a virtual subcommittee meeting on Friday, February 17.
 - c. The next in-person meeting of the subgroup will be held on March 3, 2023 at the City of Sterling Heights Department of Public Works.
4. One Water Partnership Meetings
 - a. The most recent was November 29, 2022, at Schoolcraft College in Livonia. The next meeting is scheduled to take place in March 2023. GLWA Outreach will publish more information on time and location at a later date.

Proposed Action: Receive and file this report.



Financial Services Audit Committee Communication

Date: February 24, 2023

To: Great Lakes Water Authority Audit Committee

From: Madison Merzlyakov, Affordability & Assistance Manager

Re: Affordability & Assistance Update

Background: In 2021, an Affordability & Assistance Team was created within GLWA's Financial Services Area. The team serves as the internal and external resource for strategic policies and programs related to water affordability and assistance.

Analysis: This month we present an update on the initiatives the Affordability & Assistance Team have been focused on, including WRAP outreach materials, Member Partner engagement and, efforts related to sustainable water assistance funding.

Recap of Recent WRAP Improvements

In October 2022, the WRAP improvements approved by the GLWA Board of Directors in June 2022 took effect. These improvements included the following.

- Providing WRAP as a core service, thereby removing the need for communities to opt-in or out
- Determining bill credits that are based on household income and amount of the water and sewer bill, referred to as the WRAP Income Based Plan (IBP)
- Emphasizing case management and direct client assistance

WRAP Outreach

The Affordability & Assistance team continues to coordinate with GLWA's Public Affairs team to develop additional WRAP materials and content to expand outreach efforts. So far, a Frequently Asked Question (FAQ) document has been developed, as well as a tip card and WRAP IBP Infographic. The dedicated WRAP webpage (www.glwater.org/assistance), has also been refreshed.

A press conference is planned in March to formally share the launch of the WRAP Income Based Plan, as well as announce United Way for Southeastern Michigan as the Oakland County WRAP service delivery partner.

Member Partner Engagement

The Affordability & Assistance team, alongside WRAP Service Delivery Partners, continues to work with Member Partners to notify them of improvements, walk through the details of the program, and discuss ways to best engage their residents to expand outreach. Below is a snapshot of the most recent discussions with Member Partners regarding WRAP.

- Novi (1/19/23)
- Northville Township (1/25/23)
- Riverview (1/25/23)
- Rockwood (1/26/23)
- Belleville (2/3/23 & 2/6/23)

Later this month, United Way for Southeastern Michigan, the designated WRAP service delivery partner for Oakland County residents, will be hosting a virtual event for Oakland County member partner representatives. This event will provide a space for Oakland County member partners to learn more about the WRAP process as well as other services and programming that United Way offers.

Sustainable Water Assistance Funding

GLWA continues to engage with its legal partner, Dykema, and consulting expert, Public Sector Consultants, to facilitate and support efforts to secure sustainable funding for water assistance at the state and federal levels. GLWA has participated in various stakeholder meetings across the state. We are excited to learn more about the Governor's proposed budget and the funds set aside for water assistance. The Affordability & Assistance team will update the Audit Committee as this important work progresses.

Proposed Action: Receive and file this report.



Financial Services Audit Committee Communication

Date: February 24, 2023

To: Great Lakes Water Authority Audit Committee

From: Alicia Schwartz, Manager - Grants

Re: Grants, Gifts, and Other Resources Report through January 31, 2023

Background: The Great Lakes Water Authority (GLWA) delegated authority to the Chief Executive Officer to oversee and report on activities identified in the GLWA Articles of Incorporation related to solicitation and receipt of grants, gifts, and other resources as stated in Article 4 – Powers, Section B (4):

(4) Solicit, receive, and accept gifts, grants, labor, loans, contributions of money, property, or other things of value, and other aid or payment from any federal, state, local, or intergovernmental government agency or from any other person or entity, public or private, upon terms and conditions acceptable to the Authority, or participate in any other way in a federal, state, local, or intergovernmental government program.

Other resources in this context refer to labor, contributions of money, property, or other things of value from any other person or entity, public or private with the exception for loans, subject to provisions of the GLWA Board Debt Management Policy, and Intergovernmental agreements and other activities that are addressed in the GLWA Board Procurement Policy.

Participation in any other way in a federal, state local, or intergovernmental government program includes participation in research projects at universities.

Refer to the Grants, Gifts, and Other Resources Delegation Policy at [Grants, Gifts, and Other Resources Delegation Policy - GLWA \(glwater.org\)](https://www.glwater.org/grants-gifts-and-other-resources-delegation-policy).

Analysis: To ensure transparency and timely communication, this report is provided to the Board, no less than quarterly, documenting activities subject to the policy. The report will, at a minimum, include description, type of activity, dollar amount, compliance and/or performance requirements, if any, and status including, at a minimum, solicitation, acceptance, and close-out.

Bolded items in the attached tables reflect changes from the prior report.

Highlights of this quarter's report includes the following.

- ✓ Building Resilient Infrastructure Communities (BRIC) - GLWA applied for the maximum award amount of \$50 million to support the Oakwood District Intercommunity Relief Sewer Modification at Oakwood District. This purpose of this project is to implement the 2020 Wastewater Master Plan's recommended relief connection from the Northwest Interceptor to the Oakwood pump station.
 - The application was completed on January 19, 2023, through the Federal Emergency Management Agency (FEMA). If awarded, GLWA would need to contributed matching funds of \$21 million towards the project. A FEMA decision regarding this grant is expected in the fall of 2023.
- ✓ Renewable Energy Research and Development - GLWA applied for a \$1.9 million Renewable Energy Research and Development Grant through the Department of Energy (DOE) focused on converting organic wet waste to transportation fuels. Of the \$1.9 million applied for, \$1.5 million would be funded by the DOE, \$295 thousand would be matched by GLWA, and \$80 thousand would be matched by a sub-recipient. The application is under final review as GLWA and DOE complete discussions regarding project scope and budget.

This report presents the Grants, Gifts, and Other Resources across three tables.

Table 1 - Grant Submissions reflects open FY 2020, FY 2021, FY 2022 submissions, and FY 2023 submissions to date. The summarized activity provided identifies five programs with seven reimbursement requests and two new applications.

Table 2 - Participation in Other Federal, State, Local or Intergovernmental Programs reflects open FY 2020, FY 2021, FY 2022 projects, and FY 2023 project submissions to date. The summarized activity provided identifies 17 projects with GLWA as a contributor and/or participant with efforts being conducted by a university or government program.

Table 3 - Closed Programs reflects 12 programs with 15 reimbursement requests and receipts in FY 2021, FY 2022, and FY 2023 through January 31, 2023.

Proposed Action: Receive and file this report.



Financial Services Audit Committee Communication

Table 1 - Grant Submissions reflects open FY 2020, FY 2021, FY 2022, and FY 2023 submissions to date. The summarized activity provided identifies five programs with seven grant reimbursement request submissions and two new applications, separately identified.

Table 1 - Grant Submissions

Reference Number	Request Date	Program Description	Type of Activity	Amount Requested	Compliance and/or Performance Requirements	Status	Team Member Contact
2020-002a	09/15/2020	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 144208	Federal Grant (Reimbursement Basis)	\$1,858,713	Federal Audit Requirements (add to existing audit program)	State is reviewing	Dana Bierer
2022-005	03/25/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 553713	Federal Grant (Reimbursement Basis)	\$573,325	Federal Audit Requirements (add to existing audit program)	State is reviewing	Dana Bierer
2022-006	03/03/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 149797-Amended	Federal Grant (Reimbursement Basis)	\$19,348	Federal Audit Requirements (add to existing audit program)	State is reviewing	Dana Bierer
2022-008	06/23/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 676268	Federal Grant (Reimbursement Basis)	\$470,475	Federal Audit Requirements (add to existing audit program)	State is reviewing	Dana Bierer
2022-009	06/26/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 676489	Federal Grant (Reimbursement Basis)	\$79,557	Federal Audit Requirements (add to existing audit program)	State is reviewing	Dana Bierer

Reference Number	Request Date	Program Description	Type of Activity	Amount Requested	Compliance and/or Performance Requirements	Status	Team Member Contact
2022-010	07/01/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 677321	Federal Grant (Reimbursement Basis)	\$70,039	Federal Audit Requirements (add to existing audit program)	State is reviewing	Dana Bierer
2022-002	01/06/2022	Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 11 projects under development including two mitigation projects	Federal Grant (Reimbursement Basis)	\$1,070,000	Federal Audit Requirements (add to existing audit program)	Pending application completion	Dana Bierer
2022-004	02/23/2022	Water Technician Registered Apprenticeship Program- \$2,225 per apprentice, 25 apprentices	Macomb Community College Tuition	\$55,625	None	\$4,208 received; \$4,414 received Ongoing	Patricia Butler
2022-014	06/06/2022	Department of Energy Renewable Energy Research and Development	Federal Grant (Reimbursement Basis)	\$1,500,000	Quarterly Progress Reports Match \$375,000	Applied	John Norton
2022-015	12/14/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 697073	Federal Grant (Reimbursement Basis)	\$334,193	Federal Audit Requirements (add to existing audit program)	Pending application completion	Dana Bierer
2023-001	1/19/2023	Building Resilient Infrastructure Communities (FEMA)	Federal Grant (Reimbursement Basis)	\$49,998,298	Match \$21,275,871	Applied	Dan Gold

Table 2 Participation in Other Federal, State, Local or Intergovernmental Programs reflects all open FY 2020, FY 2021, FY 2022 projects, and FY 2023 projects to date. The summarized activity provided identifies 17 projects with GLWA as a contributor and/or participant in research being conducted by a university or government program.

Table 2 - Participation in Other Federal, State, Local, or Intergovernmental Programs

Reference Number	Start Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status	Team Member Contact
2020-004	Pre-FY 2019	Phosphorus & Oxygen Control; Collection System Optimization Contract 1900169	Multiple Projects with University of Michigan	\$210,259 (Life to date through FY 2022) \$246,823 (Contract amount)	None	Ongoing	John Norton
2020-005	FY2020	PFAS Health & Ecological Impacts Contract 1902151	Wayne State University Project	\$140,491 (Life to date through FY 2022) \$192,153 (Contract amount)	None	Ongoing	John Norton
2020-007	FY2020	Transport/Fate of Nutrients in Biosolids Contract 1902059	Michigan State University Project	\$246,802 (Life to date through FY 2022) \$277,470 (Amended contract amount)	None	Ongoing	John Norton
2020-009	07/22/2020	Implementation of LTCP modeling Contract 2001434	University of Michigan Project	\$528,676 (Life to date through FY 2022) \$636,702 (Contract amount)	None	Ongoing	John Norton
2020-010	08/01/2020	Microplastics and Human Health Contract 1904710, 2103303	Wayne State University Project	\$137,177 (Life to date through FY 2022) \$195,000 (Contract amount)	None	Ongoing	John Norton

Reference Number	Start Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status	Team Member Contact
2020-008, 2020-013	08/01/2020	Surveillance of Covid-19 in Southeast MI Wastewater- Expanded project scope- Phase 1, Phase 2, Phase 3, Phase 4 Contract 2001402	State of Michigan/ CDM Smith and Michigan State University	\$232,560 (Life to date through FY 2022) GLWA receiving samples and analytics. \$267,458 (Contract amount) (Project worth \$3,200,000)	None	Ongoing	John Norton
2020-014	12/29/2020	Assessing biosolid treatment processes on pollutant environmental fate on plant uptake Contract 2103714	US Environmental Protection Agency (EPA)/ Michigan State, Colorado State, and University of Georgia	\$100,000 and in-kind labor for program participation (Contract amount) (Project worth \$1,498,000)	None	Ongoing	John Norton
2021-004	03/17/2021	Project GREEN-Accumulation of Per- and Polyfluoroalkyl Substances in Historically Archived Corn and Wheat Grains Contract 2103224	Michigan State University Project	\$20,000 (Contract amount) (Project worth \$69,999)	None	Ongoing	John Norton

Reference Number	Start Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status	Team Member Contact
2021-005	05/04/2021	Converting Biosolids into Diesel	Department of Energy (DOE)/ Pacific Northwest National Labs (PNNL)	In-kind labor and facility for research and analysis with PNNL (Project worth \$740,750)	None	Ongoing	John Norton
2021-008	07/12/2021	Method Development for Detection of Human Sources of Fecal Contamination in the Watershed Contract 2100771	Wayne State University Project	\$50,198 (Life to date through FY 2022) \$297,560 (Contract amount)	None	Ongoing	John Norton
2021-009	03/30/2021	Life cycle assessment Contract 2001595	University of Michigan Project	\$65,464 (Life to date through FY 2022) \$234,726 (Contract amount)	None	Ongoing	John Norton
2021-010	02/11/2021	Prestressed concrete cylinder pipe (PCCP) Study on Loss of Preload Contract 2101210	Tarrant Regional Water District	\$20,000 (Contract amount) (Project worth \$100,000)	None	Ongoing	John Norton
2021-011	04/29/2021	Integrated biochemical electrochemical technologies (IBET)	University of Michigan Project	\$312,500 and in-kind labor and facility for program participation (Contract amount; Project worth \$6,790,983)	None	Ongoing	John Norton

Reference Number	Start Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status	Team Member Contact
2021-012	11/19/2021	Michigan Industry Cluster Approach 3.0 (MICA 3.0) Employer Partnership	Focus: Hope	GLWA leading employer collaboration (Project worth \$250,000)	None	Ongoing	Patricia Butler
2022-011	10/05/2021	Volatile Fatty Acid Analysis Contract 2102174	Wayne State University Project	\$28,499 (Life to date through FY 2022) \$62,600 (Contract amount)	None	Ongoing	John Norton
2022-012	01/26/2022	Data Driven Decision Making Framework Contract 2102864	University of Michigan Project	\$89,408 (Life to date through FY 2022) \$590,179 (Contract amount)	None	Ongoing	John Norton
2022-013	06/10/2022	Create Workforce and Laboratory of the Future at Water Works Park Contract 2104064	Wayne State University Project	\$584,114 (Contract amount)	None	Ongoing	John Norton

Table 3 Closed Programs reflects 12 programs with 15 reimbursement requests and receipts in FY 2021, FY 2022, and FY 2023 through January 31, 2023.

Table 3 - Closed Programs

Reference Number	Request Date	Program Description	Type of Activity	Amount	Compliance and/or Performance Requirements	Status	Team Member Contact
2020-001	08/31/2020; 09/23/2020; 10/26/2020; 11/23/2020	Wage Incentive used for qualified apprentices	MOU with DESC (Detroit Employment Solutions Corporation) and SER-Metro Detroit	\$12,000 (\$3,000 per month)	Minimum wage and monthly work hour requirements	\$12,000 received	Patricia Butler
2020-002b	11/11/2020	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 149797	Federal Grant (Reimbursement Basis)	\$84,244	Federal Audit Requirements (add to existing audit program)	\$84,244 received 10/14/2021	Dana Bierer
2020-002c/ 2022-007	02/09/2021	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 149800	Federal Grant (Reimbursement Basis)	\$16,123	Federal Audit Requirements (add to existing audit program)	\$16,123 received 10/14/2021	Dana Bierer
2020-003	Pre-FY 2019	Anaerobic Digestion Project CS-217	Michigan State University Project	\$355,742 (Life to date through FY2022) \$355,800 (Contract amount)	None	Completed	John Norton
2020-006	FY2020	Lake Huron to Lake Erie Monitoring Platform; Photocatalytic UV materials	Multiple Projects with Wayne State University	\$1,284,500 (Contract amount)	None	Program not initiated; no resources provided	John Norton

Reference Number	Request Date	Program Description	Type of Activity	Amount	Compliance and/or Performance Requirements	Status	Team Member Contact
2020-011	Pre-FY2020	Smart Pipes Contract 1900902	University of Michigan Project	\$356,460 (Life to date through FY2022) \$356,610 (Contract amount)	None	Completed	John Norton
2020-012	Pre-FY2020	Phosphorus and Oxygen Control; Collection System Optimization Contract 1900169	Multiple Projects with University of Michigan	\$250,000 (Contract amount)	None	Program incorporated into similar 2020-004 program	John Norton
2021-001	01/01/2021	The Michigan Department of Environment, Great Lakes, and Energy (EGLE) Drinking Water Asset Management (DWAM) Grant CS-198	State Grant (Reimbursement Basis)	\$998,047	None	Not received	Jody Caldwell
2021-002	02/01/2021	Southeast Michigan Council of Governments (SEMCOG) Infrastructure Asset Management Program	Organization of Local Governments (Reimbursement Basis)	\$29,951	None	\$29,951 received 02/18/2021	Jody Caldwell
2021-003	02/18/2021	The Michigan Department of Environment, Great Lakes, and Energy (EGLE) Watershed Council Support Program	State Grant (Reimbursement Basis)	\$40,000	Quarterly Progress Reports	\$4,050 received 06/27/2022; \$18,190 received 09/16/2022; \$17,759 received 10/17/2022	Dan Gold

Reference Number	Request Date	Program Description	Type of Activity	Amount	Compliance and/or Performance Requirements	Status	Team Member Contact
2021-006	06/21/2021	Improving Arrested Anaerobic Digestion Using Vacuum-Based IntensiCarb Reactors	DOE, Office of Energy Efficiency and Renewable Energy/ University of California Irvine	In-kind labor for program participation (Project worth \$3,875,000)	None	Program not initiated; no resources provided	John Norton
2021-007	06/23/2021	United States Environmental Protection Agency - EGGLE Surface Water Intake Protection Program (SWIPP)	Federal Grant (Reimbursement Basis)	\$50,000	Quarterly Progress Reports Match \$50,000	\$7,106 received 08/09/2022; \$920 received 10/13/2022	Mary Lynn Semegen and Terry Daniel
2021-013	12/28/2021	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 552205	Federal Grant (Reimbursement Basis)	\$36,014	Federal Audit Requirements (add to existing audit program)	\$36,014 received 06/27/2022	Dana Bierer
2022-001a	03/03/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 435200	Federal Grant (Reimbursement Basis)	\$92,033	Federal Audit Requirements (add to existing audit program)	\$92,033 received 06/27/2022	Dana Bierer
2022-001b	03/03/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 553382	Federal Grant (Reimbursement Basis)	\$63,842	Federal Audit Requirements (add to existing audit program)	\$63,842 received 06/27/2022	Dana Bierer

Reference Number	Request Date	Program Description	Type of Activity	Amount	Compliance and/or Performance Requirements	Status	Team Member Contact
2022-003	01/20/2022	Federal Emergency Management Agency (FEMA), Building Resilient Infrastructure and Communities (BRIC) Northwest Interceptor Diversion Tunnel	Federal Grant (Reimbursement Basis)	\$39,611,007	Federal Audit Requirements (add to existing audit program) Match \$13,203,669	Not received	Jody Caldwell



Financial Services Audit Committee Communication

Date: February 24, 2023

To: Great Lakes Water Authority Audit Committee

From: Deirdre Henry, Treasury Manager

Re: Quarterly Investment Report (Unaudited)

Background: As stated in section 14 of the Great Lakes Water Authority (GLWA) Investment Policy, quarterly reporting shall be presented to provide a clear picture of the status of the current GLWA investment portfolio. The attached report, prepared and presented by PFM Asset Management LLC, summarizes portfolio information through December 31, 2022 (unaudited).

Analysis: The Quarterly Investment Report complies with the requirements of Public Act 20 of 1948, as amended and the GLWA Investment Policy. GLWA is investing its funds in a diversified portfolio which includes bank deposits, money market funds, a local government investment pool (LGIP), U.S. Treasuries, Federal Agencies, and commercial paper. All securities in the portfolio comply with the GLWA investment policy. Key metrics are provided below with additional commentary in the attached report.

- Yield at Cost:
 - As of December 31, 2022: 3.71%
 - As of September 30, 2022: 2.44%
- Yield at Market:
 - As of December 31, 2022: 4.33%
 - As of September 30, 2022: 3.09%
- Portfolio Allocation in Cash/Money Market/LGIP Securities:
 - As of December 31, 2022: 49%
 - As of September 30, 2022: 72%

The Treasury group continues to work with PFM Asset Management LLC to identify strategies to maximize investment returns while meeting the GLWA standards for safety and liquidity.

Proposed Action: Receive and file this report.

Great Lakes Water Authority

Investment Performance Report – December 2022



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PORTFOLIO RECAP

- **Safety** – The aggregate portfolio is diversified amongst cash, bank deposits, U.S. Treasuries, Federal Agencies, commercial paper, SEC-registered money market funds, and a local government investment pool. The total credit profile of the portfolio is strong with over 97% of the assets invested in bank deposits or securities that are rated within the two highest short and long-term rating classifications as established by S&P.
- **Liquidity** – Great Lakes Water Authority (“GLWA”) has continued to monitor its portfolio with the goal of limiting the allocation to cash and bank deposit accounts and maximizing the use of short-term investments to meet cash requirements. As of 12/31/2022, approximately 49% of the funds were held in cash and money market accounts maturing overnight. The percentage is slightly lower than last quarter due to higher short-term commercial paper rates.
- **Return** – The overall yield at market increased to 4.33% as of December 31, 2022, versus 3.09% as of September 30, 2022. The higher yield is reflective of the rise in interest rates that the market has experienced. GLWA earned \$11.2 million (unaudited) in investment income for the first six months of fiscal year 2023 on a book value basis. We expect the investment income for GLWA for FY 2023 to be approximately \$32.5 million (including bond proceeds).

AVAILABLE FUNDS (Unaudited)

Type	Financial Institution	Book Value	Market Value	Yield @ Cost (as of 12/31/22)	Yield @ Market (as of 12/31/22)
Deposit Account	Comerica	\$7,414,943	\$7,414,943	0.01%	0.01%
Deposit Account - Retainage	First Independence	\$23,663,892	\$23,663,892	0.01%	0.01%
Deposit Account – Flint Security Deposit	Chase	\$3,845,762	\$3,845,762	2.43%	2.43%
Deposit Account	Chase	\$22,274,358	\$22,274,358	2.43%	2.43%
Trust Money Market Fund	U.S. Bank	\$352,876,213	\$352,876,213	4.06%	4.06%
Money Market Fund	JP Morgan	\$4,276,265	\$4,276,265	2.47%	2.47%
Local Government Investment Pool	GovMIC	\$153,681,768	\$153,681,768	4.28%	4.28%
Managed Funds	PFMAM	\$601,211,921	\$595,298,468	3.61%	4.82%
<u>DECEMBER 2022 TOTALS:</u>		<u>\$1,169,245,122</u>	<u>\$1,163,331,669</u>	<u>3.71%</u>	<u>4.33%</u>
<u>PREVIOUS QUARTER TOTALS:</u>		<u>\$1,091,441,725</u>	<u>\$1,083,851,561</u>	<u>2.44%</u>	<u>3.09%</u>

The accounts at Comerica Bank get an earnings credit to offset bank fees. The funds and earnings in the Retainage account are held on behalf of the contractors and do not belong to GLWA. The funds and earnings in the Flint Security Deposit account are held on behalf of the City of Flint and do not belong to GLWA..

Investment Strategy

OVERALL STRATEGY

- All investment activity is conducted subject to GLWA's investment policy and state statutes while meeting the primary objectives of safety and liquidity. The portfolio is managed to a disciplined investment plan to provide improved safety and diversification while putting every dollar to work.
- GLWA, working with its investment advisor PFM Asset Management ("PFMAM"), has continued to invest its funds in a mixture of short and intermediate-term individual investment securities to ensure adequate liquidity to cover upcoming debt, pension payments, and operational requirements.
- PFMAM will continue to actively manage long-term portfolios with full discretion and align short-term balances with expected liabilities and identify strategies to maximize future investment income in the current interest rate environment, subject to GLWA's investment policy and state statutes.

PORTFOLIO PERFORMANCE – CURRENT PERIOD*

- The overall portfolio's original yield at cost went from 2.44% as of 9/30/2022 to 3.71% as of 12/31/2022; the higher yield is a result of reinvesting proceeds of lower-yielding securities that have matured in a higher interest rate environment.
- The total portfolio had a market yield of 4.33% at the end of December. Yield at market represents what the market would provide in return if the portfolio was purchased on December 31, 2022 (versus purchased in prior months / years).
 - This 4.33% yield at market as of 12/31/2022 is higher than in the prior quarter as the increase in short and intermediate-term yields during the calendar 2022 year resulted in a shift in the yield at market of the portfolio higher.

PORTFOLIO PERFORMANCE – PROJECTIONS

- GLWA earned over \$11.2 million (unaudited) in investment income for fiscal year-to-date 2023 (as of 12/31/22) on a book value basis.
- The current period earnings are higher than budgeted expectations, mainly due to more Federal Reserve interest rate hikes priced into the market.
- The FY 2023 total interest earnings projection forecast is estimated to be approximately \$32.5 million.

** Yield at cost is based on the original cost of the individual investments from the purchase date to maturity. On the other hand, yield at market is calculated on a specific day (in this case, December 31, 2022) and assumes that all the securities in the portfolio are purchased given the market price/yield on that particular day. If one is to generally hold their investments to the stated maturity date, then the yield at cost would be the better number to use to gauge how the portfolio is performing.*

Summary Market Overview and Outlook

ECONOMIC HIGHLIGHTS UPDATE

- At its December meeting, the Federal Open Market Committee (“FOMC”) raised the Fed Funds rate by 50 basis points to a new target range of 4.25% to 4.50%, which was a downshift following four consecutive 75 basis point hikes. The updated summary of economic projections points toward lower growth, higher inflation, and a higher unemployment rate in 2023. Fed Chair Jerome Powell commented that the Federal Reserve (the “Fed”) has “more work to do” and that “restoring price stability will likely require maintaining a restrictive policy stance for some time.”
- The year-over-year change in the Consumer Price Index (“CPI”) fell to 6.5% in December, down from 7.1% a month earlier. Overall prices declined for the month, the first such decrease since May of 2020. Falling gasoline, fuel oil, and car prices were the largest contributors. Shelter costs remained elevated, but they typically lag. After peaking at 9.1% in June, headline CPI has now moderated for six consecutive months.
- The labor market remained strong, as the economy added 223,000 jobs in December. The unemployment rate fell back to 3.5%, matching a 50+ year low. Wage growth moderated, but remained above trend, while the labor force participation rate improved.
- The housing market continued to cool. Existing home sales declined by nearly 8% in November, falling for the tenth consecutive month to a 12-year low (outside of one month during the pandemic). Building permits fell and were down 29% through November.
- Business activity slowed, as the services sector joined the manufacturing sector in contraction, as measured by the Institute for Supply Management (“ISM”) purchasing manager surveys.

ECONOMIC IMPACT ON PORTFOLIO

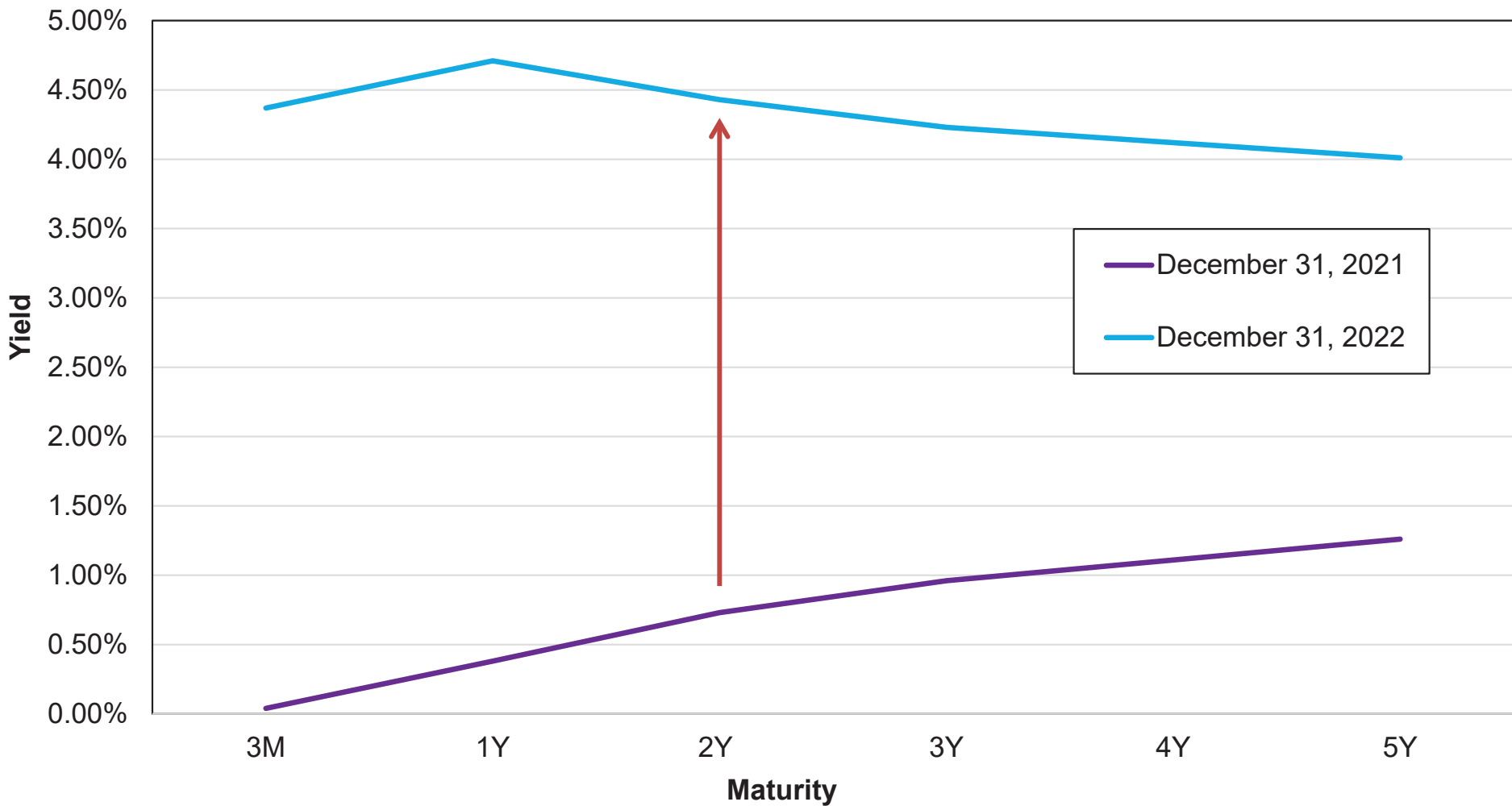
- Treasury yields generally traded within their broader calendar year 2022 fourth quarter ranges at the end of the quarter. That reversed quickly in the first two weeks of January, as lower expectations for inflation combined with growing concerns about an economic slowdown pushed longer-term rates to the lower end of the range.
- For all of 2022, interest rates were sharply higher. For reference, the yield on the 2-year Treasury was 370 basis points higher for the calendar year. The benchmark 3-month, 2-year, and 10-year U.S. Treasury yields finished December at 4.34%, 4.43%, and 3.88%, respectively.
- Portfolio Impact: Amid economic growth uncertainty, and with additional Fed rate hikes still expected, PFMAM plans to maintain its modestly defensive posture, with portfolio durations shorter than benchmarks for now. The market’s expectation for rate cuts in late 2023 conflicts with the Fed’s publicly stated position of holding rates in restrictive territory. That battle will play out in 2023. Federal Agency yield spreads widened a touch, presenting some opportunities, but weaker liquidity (wider bid/ask spreads) persists as a headwind. Money market spreads narrowed in December but continue to offer excellent value and very attractive absolute yields, in many cases fully compensating for additional potential rate hikes.

Summary Market Overview and Outlook

Treasury Yields Continue Their Upward Surge

- It should be noted that as a result of the Federal Reserve's interest rate hikes, the markets have seen a dramatic increase in short and intermediate-term fixed income yields over the past year.

U.S. Treasury Yield Curve



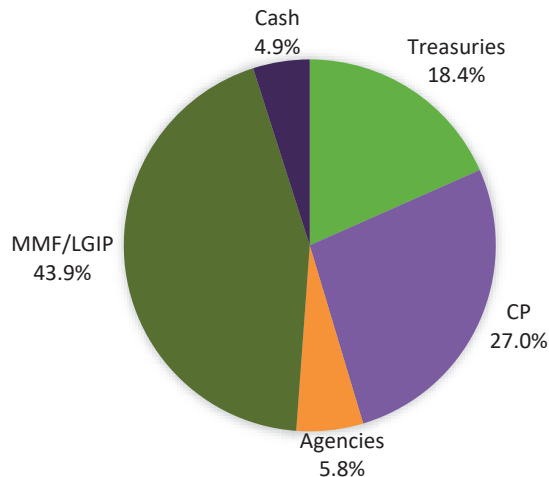
Portfolio Snapshot

Overall Portfolio Composition Summary

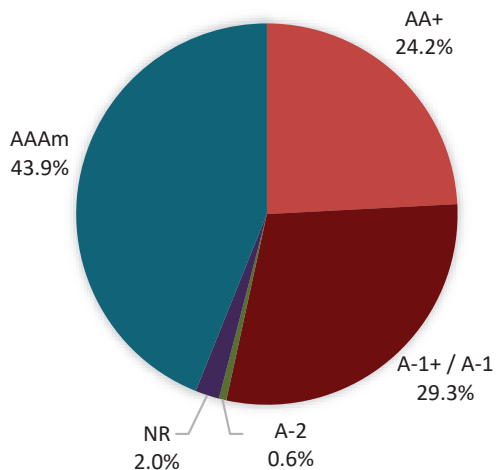
PORTFOLIO STATISTICS

Invested Amount	\$1.163 Billion
Duration	0.31 Years
Yield at Cost	3.71%
Yield at Market	4.33%

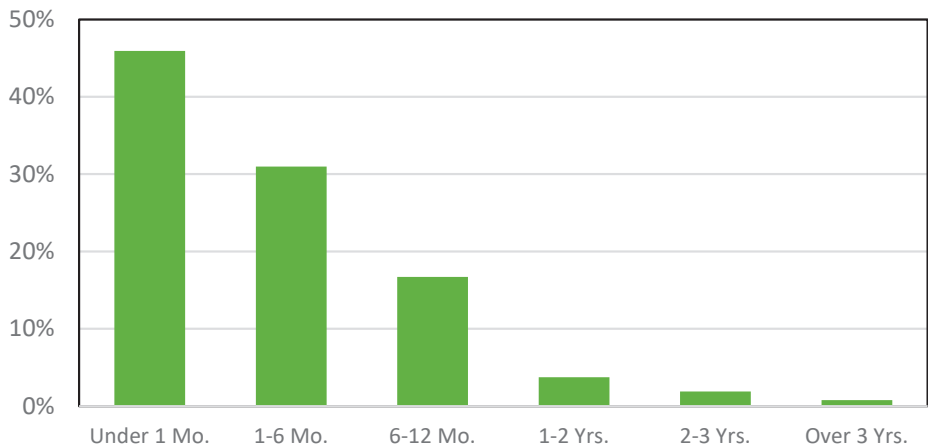
SECTOR ALLOCATION



CREDIT QUALITY



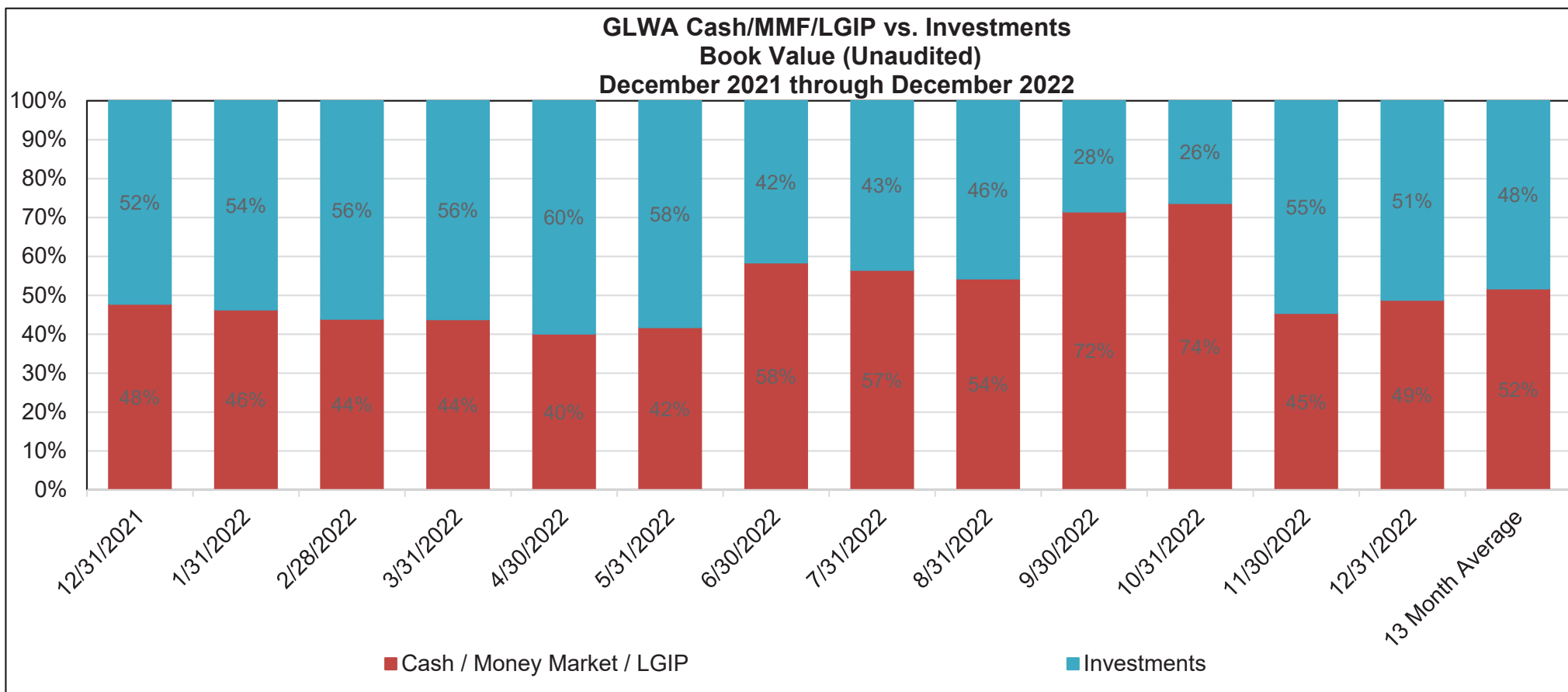
MATURITY DISTRIBUTION



Portfolio Snapshot

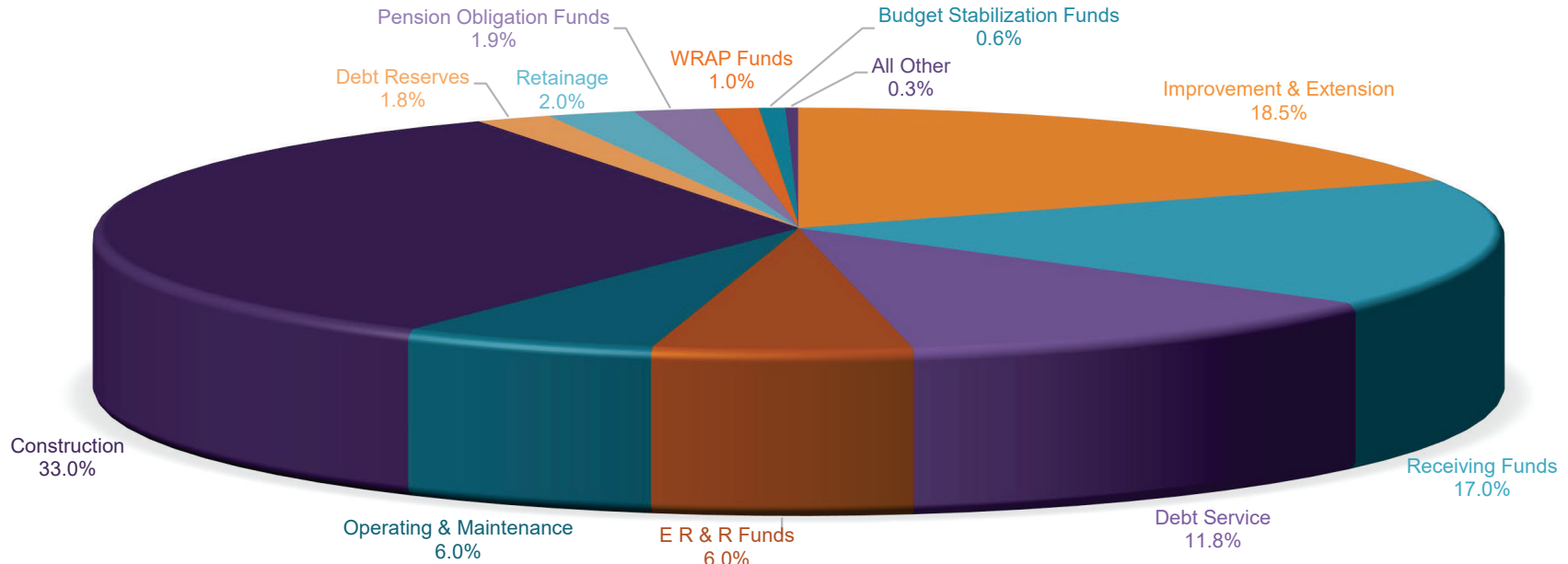
Portfolio Mix – Cash / Money Market vs. Investments

- GLWA's liquidity requirements fluctuate each month based on operational requirements, capital funding, and debt payments. Based on a review of historical activity and refinement of cash flow projections, GLWA has continually tried to balance the allocation of the portfolio's holdings to cash & money market accounts versus the allocation to investments for the portfolio holdings.
- The chart below compares the monthly allocation of the portfolio holdings to the 13-month average. The allocation between cash and investments will vary each month based on liquidity requirements. For December of 2022, 49% of the overall portfolio was invested in cash, LGIP, and/or overnight money market fund accounts. This is slightly lower than usual due to the recent commercial paper purchases in the bond proceeds accounts by GLWA.



Portfolio Snapshot

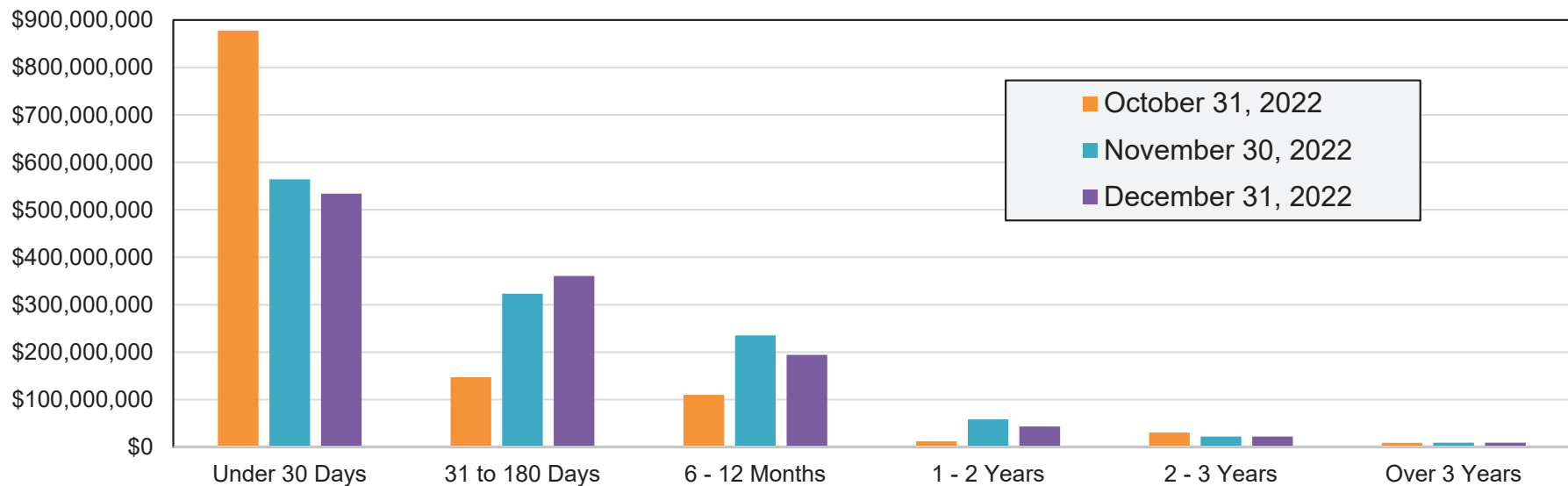
Investments – By Account Purpose



Account Purpose	Value Market	Allocation %	Cost Yield at	Market Yield at	Duration
Construction	\$ 384,342,461	33.0%	5.03%	4.89%	0.399 Years
Improvement & Extension	\$ 215,563,528	18.5%	2.51%	4.34%	0.149 Years
Receiving Funds (includes lockbox account)	\$ 198,330,900	17.0%	3.51%	3.51%	0.003 Years
Debt Service	\$ 137,381,087	11.8%	4.86%	4.75%	0.324 Years
Extraordinary Repair & Replacement Funds	\$ 69,520,521	6.0%	0.55%	4.51%	1.394 Years
Operating & Maintenance	\$ 69,219,586	6.0%	3.81%	3.81%	0.003 Years
Retainage	\$ 23,663,892	2.0%	0.01%	0.01%	0.003 Years
Pension Obligation Funds	\$ 21,756,829	1.9%	4.04%	4.82%	0.442 Years
Debt Reserves	\$ 20,444,791	1.8%	0.96%	4.46%	0.920 Years
WRAP Funds	\$ 12,138,982	1.0%	4.20%	4.89%	0.158 Years
Budget Stabilization Funds	\$ 7,123,330	0.6%	0.77%	4.49%	1.297 Years
Flint Security Deposit Account	\$ 3,845,762	0.3%	2.43%	2.43%	0.003 Years
Total	\$ 1,163,331,669	100.0%	3.71%	4.33%	0.316 Years

Portfolio Snapshot Investments – By Maturity

Maturity Distribution	October 31, 2022		November 30, 2022		December 31, 2022	
		%		%		%
Under 30 Days	\$ 877,666,080	74.0%	\$ 564,289,293	46.6%	\$ 534,189,017	45.9%
31 to 180 Days	147,052,005	12.4%	323,039,613	26.7%	360,431,102	31.0%
6 - 12 Months	109,989,917	9.3%	235,239,924	19.4%	194,366,459	16.7%
1 - 2 Years	12,072,888	1.0%	58,336,911	4.8%	43,364,796	3.7%
2 - 3 Years	30,692,110	2.6%	21,983,073	1.8%	21,973,130	1.9%
Over 3 Years	8,895,285	0.7%	9,027,650	0.7%	9,007,166	0.8%
Totals	\$ 1,186,368,285	100.0%	\$ 1,211,916,465	100.0%	\$ 1,163,331,669	100.0%



Portfolio Snapshot

Investment Accounts – Yield at Cost & Market

	As of December 31, 2022		As of September 30, 2022	
	YTM @ Cost	YTM @ Market	YTM @ Cost	YTM @ Market
Bank Deposits				
Comerica	0.01%	0.01%	0.01%	0.01%
First Indenpedence	0.01%	0.01%	0.01%	0.01%
Flint Deposit Account	2.43%	2.43%	1.23%	1.23%
JP Morgan Chase	2.43%	2.43%	1.23%	1.23%
Sub-Total Bank Deposits	1.12%	1.12%	0.37%	0.37%
Money Market Funds / LGIPs				
GoVMIC	4.28%	4.28%	2.97%	2.97%
U.S. Bank - First American MMF	4.06%	4.06%	2.73%	2.73%
JP Morgan Securities - Blackrock MMF	2.47%	2.47%	1.27%	1.27%
Sub-Total MMF / LGIPs	4.11%	4.11%	2.89%	2.89%
Investment Portfolios				
Sewage SR Debt Serv 5403	5.20%	5.00%	3.18%	3.62%
Sewage SR Res 5400	0.32%	4.51%	0.32%	4.17%
Sew 2nd Debt Serv 5403	4.97%	4.93%	0.00%	0.00%
Sewage 2nd Res 5481	4.17%	4.51%	4.17%	4.17%
Sew SRF Debt Serv 5410	4.80%	4.83%	3.12%	3.40%
Sewage ER & R	0.46%	4.52%	0.46%	4.19%
Sewer Improvement & Extension	0.91%	4.70%	0.91%	3.86%
Sewer Pension Obligation	4.11%	4.80%	3.19%	4.14%
Sewer Wrap Fund	4.13%	5.02%	2.70%	3.71%
Sewer Budget Stabilization Fund	0.47%	4.53%	0.44%	4.10%
Sewer Bond Fund	5.00%	4.86%	0.00%	0.00%
Sewer O&M Pension Sub Account	3.97%	4.78%	3.06%	4.14%
Water SR Debt Ser 5503	5.20%	5.02%	3.10%	3.54%
Water SR Reserve 5500	0.70%	4.57%	0.70%	4.18%
Water 2nd Debt Serv 5503	5.27%	4.94%	0.00%	0.00%
Water 2nd Res 5581	4.18%	4.57%	4.18%	4.18%
Water SRF Debt Serv 5575	4.64%	4.83%	3.47%	4.02%
Water ER & R	0.45%	4.53%	0.45%	4.19%
Water Improvement & Extension	0.38%	4.67%	0.38%	3.98%
Water Pension Obligation	4.09%	4.79%	3.17%	4.14%
Water Wrap Fund	4.30%	4.93%	2.82%	3.60%
Water Budget Stabilization Fund	0.47%	4.53%	0.43%	4.07%
Water Bond Fund	5.17%	4.96%	0.00%	0.00%
Water O&M Pension Sub Account	3.97%	4.78%	3.06%	4.14%
Sub-Total Investment Portfolios	3.61%	4.82%	1.58%	3.88%
Grand Total	3.71%	4.33%	2.44%	3.09%

The accounts at Comerica Bank get an earnings credit to offset bank fees. The earnings in the accounts at First Independence Bank is credited to the contractors and not the Authority. The funds in the Flint Security Deposit account are held on behalf of the City of Flint and the earnings do not belong to GLWA. YTM @ Cost is the expected return, based on the original cost, the annual interest receipts, maturity value and the time period from purchase date to maturity, stated as a percentage, on an annualized basis. YTM @ Market is the rate of return, based on the current market value, the annual interest receipts, maturity value and time period remaining until maturity, stated as a percentage, on an annualized basis.

Portfolio Snapshot

Peer Analysis Comparison

- The comparison agencies included in the list below were selected based on type and/or other non-performance-based criteria to show a broad range of water entities/utilities; this peer group list does not represent an endorsement of any of the public agencies or their services.
- The overall yield of GLWA's aggregate portfolio compares somewhat favorably to those of other short-term market indices (i.e., the S&P LGIP index and the 3-month U.S. Treasury index), despite the volatility of short-term interest rates and the limited ability in managing assets to a longer-term strategy.
- GLWA does have some limitations and unique constraints related to its ordinance and covenants that restricts the potential for a longer duration portfolio when compared to other similar water agencies.

As of December 31, 2022

	Market Value	YTM @ Market	Effective Duration	Weighted Average Maturity
GLWA				
Great Lakes Water Authority	\$1,163,331,669	4.33%	0.31 Years	111 Days
Short/Intermediate-Term Indices				
S&P Rated Government Investment Pool Index		3.91%	0.08 Years	30 Days
BoA / ML 3-Month Treasury Index		4.17%	0.14 Years	51 Days
BoA / ML 6-Month Treasury Index		4.59%	0.38 Years	139 Days
BoA / ML 1-Year Treasury Index		4.68%	0.82 Years	299 Days
BoA / ML 1-3 Year Treasury Index		4.50%	1.74 Years	635 Days
BoA / ML 1-5 Year Treasury Index		4.34%	2.48 Years	905 Days
Peer Analysis (Water Entities / Utilities)				
District of Columbia Water & Sewer Authority, DC	\$509,266,251	4.64%	0.80 Years	318 Days
DuPage Water Commission, IL	\$177,991,840	4.44%	1.96 Years	970 Days
Fairfax County Water Authority, VA	\$192,332,676	4.43%	1.77 Years	677 Days
Metro Wastewater Reclamation District, CO	\$230,077,415	4.44%	1.85 Years	741 Days
Metropolitan Water District of Southern California, CA	\$949,636,254	4.55%	0.86 Years	408 Days
Philadelphia Water Department, PA	\$198,832,363	4.78%	0.90 Years	343 Days
San Bernardino Valley Municipal Water District, CA	\$332,899,989	4.63%	1.58 Years	619 Days
Tohopekalliga Water Authority, FL	\$194,903,667	4.39%	1.66 Years	835 Days
Truckee Meadows Water Authority, NV	\$94,948,871	4.51%	1.97 Years	748 Days

The BoA / ML indexes are unmanaged indexes tracking on-the-run Treasuries. These indexes are produced and maintained by Bank of America / Merrill Lynch & Co. Yield to maturity is the rate of return, based on the current market value, the annual interest receipts, maturity value and time period remaining until maturity, stated as a percentage, on an annualized basis.

Portfolio Snapshot

Monthly Investment Income

(Book Value in 000's)

FY 2023 INVESTMENT INCOME BY MONTH (Unaudited)

Month	Interest Earned During Period (in thousands)	Realized Gain / Loss (in thousands)	Investment Income (in thousands)
July 2022	\$567.7	(\$310.2)*	\$257.5
August 2022	\$807.7	\$0.0	\$807.7
September 2022	\$1,638.1	(\$192.9)*	\$1,445.3
October 2022	\$2,191.1	(\$0.0)	\$2,191.1
November 2022	\$3,032.8	\$0.0	\$3,032.8
December 2022	\$3,493.9	\$0.0	\$3,493.9
<u>FY 2023 Y-T-D</u>	<u>\$11,731.3</u>	<u>(\$503.0)</u>	<u>\$11,228.2</u>

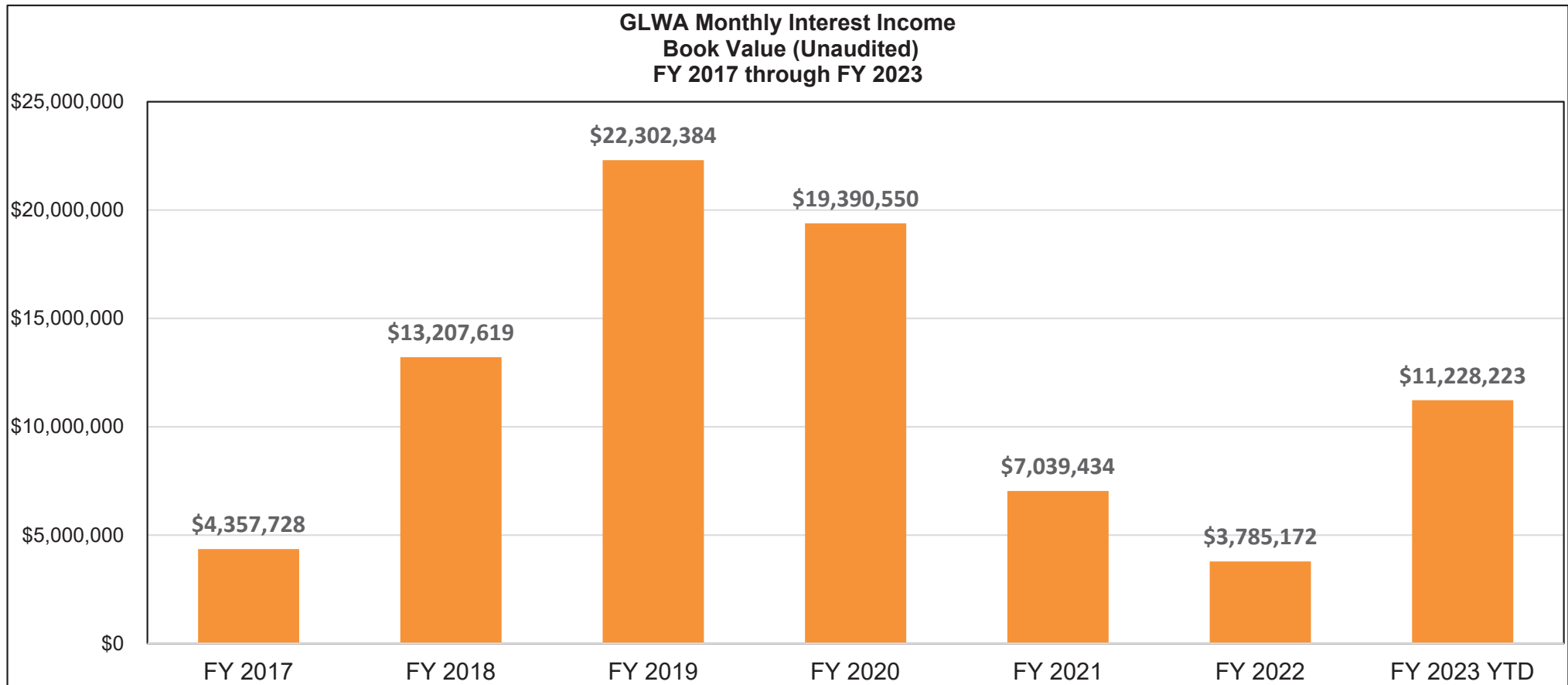
* The realized loss in July of 2022 was due to the sale of investments in the Water I&E account in anticipation of liquidity requirements. The realized loss in September of 2022 was due to the sale of investments to fund the Debt Service Reserve Fund ("DSRF") releases.

These figures are based upon actual interest earned and posted to the Authority's various accounts via book value and does not include any earnings credit rate tied to the Authority's bank deposits.

Portfolio Snapshot

Year-Over-Year Investment Income

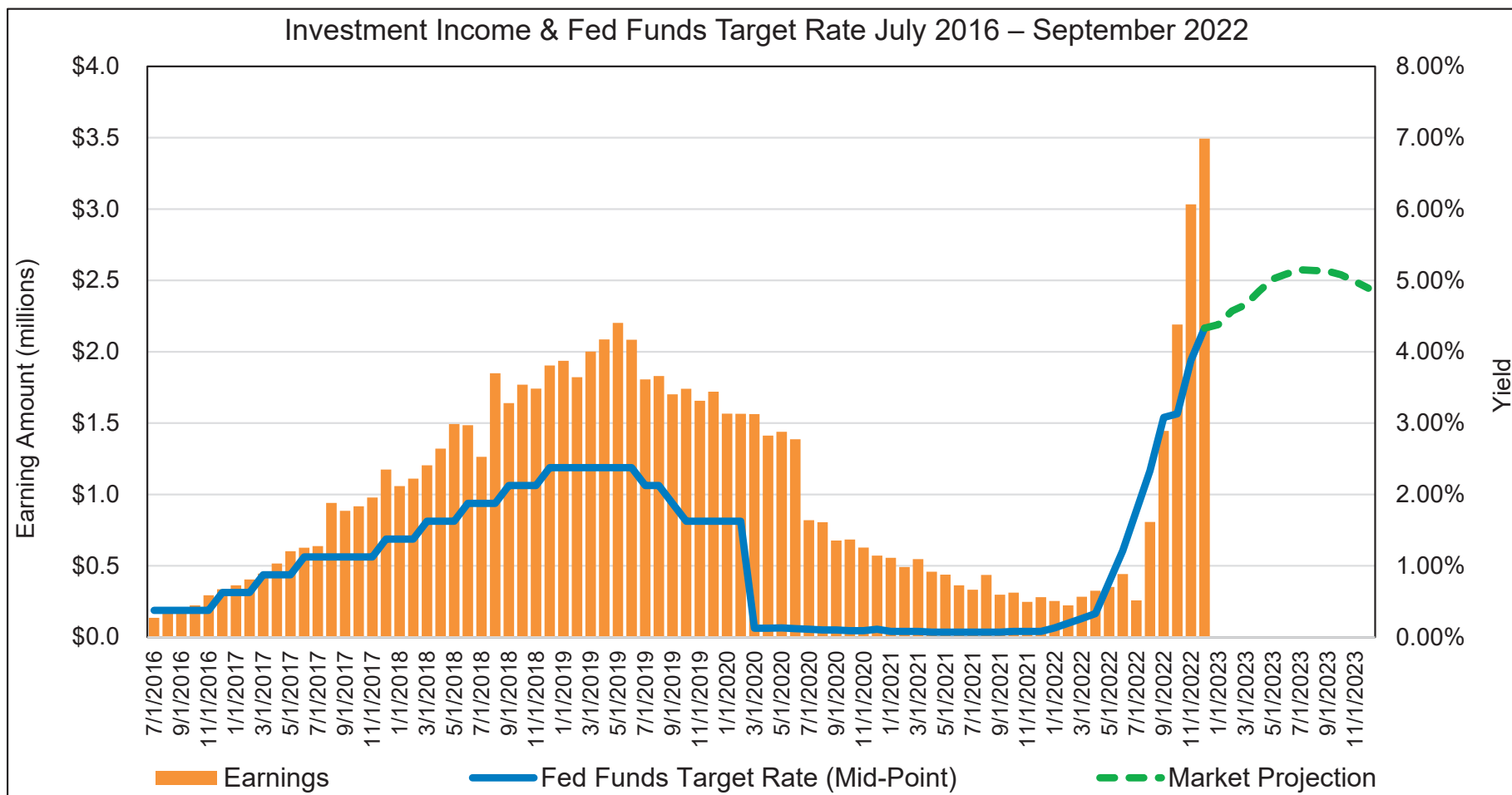
- GLWA earned \$11,228,223 in investment income for the first half of fiscal year 2023 on a book value basis compared to \$1,905,313 for the first six months of fiscal year 2022.
- Based on current market assumptions and the addition of assets and proceeds from GLWA's most recent bond fund issue, projected investment income for fiscal year 2023 is forecasted to be around \$32.5 million, as the market expects the overnight lending rate to continue to increase over the next few months.



Portfolio Snapshot

Monthly Investment Income Compared to Fed Funds Rate

- At least 50% of the GLWA portfolio is designated for obligations that are 12 months or less. As a result of the short-term duration of GLWA's portfolio, it is heavily impacted by changes in the Fed Funds target rate; the chart below illustrates that GLWA's income has consistently followed the trend of the Fed Funds rate.
- According to effective Fed Funds futures, the market is pricing in at least one more Fed rate hike; based on the historical trend, a Fed Funds target range of around 5.00% will translate into higher interest earnings for GLWA in fiscal year 2023 and beyond.



Appendix I: Portfolio Holdings

Portfolio Holdings As of December 31, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Short-Term Bank Deposits / MMF / LGIP									
COMERICA BANK		\$ 7,414,943	10/1/2022	9/30/2022	0.01%	\$ 7,414,943	1	\$ -	\$ 7,414,943
FIRST INDEPENDENCE BANK		23,663,892	10/1/2022	9/30/2022	0.01%	23,663,892	1	-	23,663,892
FLINT DEPOSIT ACCOUNT		3,845,762	10/1/2022	9/30/2022	2.43%	3,845,762	1	-	3,845,762
JP MORGAN CHASE		22,274,358	10/1/2022	9/30/2022	2.43%	22,274,358	1	-	22,274,358
GovMIC		100,436,768	10/1/2022	9/30/2022	4.28%	100,436,768	1	-	100,436,768
U.S. BANK - FIRST AMERICAN MMF		352,876,213	10/1/2022	9/30/2022	4.06%	352,876,213	1	-	352,876,213
JP MORGAN SECURITIES - BLACKROCK MMF		4,276,265	10/1/2022	9/30/2022	2.47%	4,276,265	1	-	4,276,265
GovMIC TERM									
TERM GovMIC 4.47 2/14/2023	TERM-02-14-2023	\$ 5,670,000	2/14/2023	11/10/2022	4.47%	\$ 5,670,000	45	\$ 35,413	\$ 5,670,000
TERM GovMIC 4.82 4/17/2023	TERM-04-17-2023	9,330,000	4/17/2023	11/16/2022	4.82%	9,330,000	107	55,443	9,330,000
TERM GovMIC 4.47 2/14/2023	TERM-02-14-2023	13,670,000	2/14/2023	11/10/2022	4.47%	13,670,000	45	85,379	13,670,000
TERM GovMIC 4.62 3/10/2023	TERM-03-10-2023	13,025,000	3/10/2023	11/14/2022	4.62%	13,025,000	69	77,486	13,025,000
TERM GovMIC 4.82 4/17/2023	TERM-04-17-2023	11,550,000	4/17/2023	11/16/2022	4.82%	11,550,000	107	68,635	11,550,000

Portfolio Holdings As of December 31, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Commercial Paper									
Barclays Capital Inc 0 6/13/2023	06743VTD2	\$ 4,740,000	6/13/2023	11/8/2022	5.41%	\$ 4,590,284	164	\$ -	\$ 4,632,340
BOA Securities 0 8/1/2023	06054PV11	6,860,000	8/1/2023	11/7/2022	5.52%	6,590,345	213	-	6,652,300
CA Imperial Bank 0 7/31/2023	13608BUX0	6,860,000	7/31/2023	11/7/2022	5.46%	6,593,889	212	-	6,653,356
Charta LLC 0 3/13/2023	16115WQD2	6,740,000	3/13/2023	11/8/2022	4.99%	6,625,326	72	-	6,674,211
CRC Funding LLC 0 3/14/2023	12619UQE4	470,000	3/14/2023	11/10/2022	4.93%	462,148	73	-	465,504
JPMorgan Securities 0 4/10/2023	46640QRA1	4,000,000	4/10/2023	11/10/2022	4.80%	3,921,144	100	-	3,947,028
JPMorgan Securities 0 5/8/2023	46640QS85	6,860,000	5/8/2023	11/7/2022	5.10%	6,687,635	128	-	6,741,500
LMA Americas LLC 0 2/9/2023	53944RP93	3,250,000	2/9/2023	11/8/2022	4.76%	3,210,540	40	-	3,232,928
LMA Americas LLC 0 5/4/2023	53944RS41	3,460,000	5/4/2023	11/7/2022	5.25%	3,372,408	124	-	3,400,696
MacQuarie Bank LTD 0 6/30/2023	55607LTW4	6,860,000	6/30/2023	11/8/2022	5.43%	6,626,348	181	-	6,686,641
Manhattan Asset Funding 0 3/3/2023	56274MQ39	6,740,000	3/3/2023	11/10/2022	4.79%	6,640,143	62	-	6,685,851
MUFG Bank LTD NY 0 7/31/2023	62479MUX9	6,860,000	7/31/2023	11/7/2022	5.51%	6,591,862	212	-	6,660,923
Natixis Bank NY 0 8/1/2023	63873KV12	6,860,000	8/1/2023	11/7/2022	5.57%	6,587,801	213	-	6,655,414
Ridgefield Funding Co 0 3/9/2023	76582KQ95-2	6,740,000	3/9/2023	11/9/2022	4.88%	6,632,160	68	-	6,678,093
Royal Bank of Canada 0 8/1/2023	78015DV15	6,860,000	8/1/2023	11/8/2022	5.44%	6,594,903	213	-	6,661,664
Sumitomo Mitsubishi Trust 0 2/7/2023	86563HP79	6,710,000	2/7/2023	11/7/2022	4.66%	6,631,120	38	-	6,677,745
Toronto Dominion Bank 0 7/31/2023	89119BUX2	2,685,000	7/31/2023	11/8/2022	5.47%	2,581,038	212	-	2,607,261
Barclays Capital Inc 0 6/13/2023	06743VTD2	6,600,000	6/13/2023	11/8/2022	5.41%	6,391,535	164	-	6,450,094
BOA Securities 0 8/1/2023	06054PV11	6,600,000	8/1/2023	11/7/2022	5.52%	6,340,565	213	-	6,400,172
CA Imperial Bank 0 7/31/2023	13608BUX0	6,600,000	7/31/2023	11/7/2022	5.46%	6,343,975	212	-	6,401,188
Charta LLC 0 3/13/2023	16115WQD2	6,480,000	3/13/2023	11/8/2022	4.99%	6,369,750	72	-	6,416,749
JPMorgan Securities 0 5/8/2023	46640QS85	6,600,000	5/8/2023	11/7/2022	5.10%	6,434,168	128	-	6,485,992
LMA Americas LLC 0 5/4/2023	53944RS41	6,540,000	5/4/2023	11/7/2022	5.25%	6,374,436	124	-	6,427,904
MacQuarie Bank LTD 0 6/30/2023	55607LTW4	6,600,000	6/30/2023	11/8/2022	5.43%	6,375,204	181	-	6,433,211
MUFG Bank LTD NY 0 7/31/2023	62479MUX9	6,600,000	7/31/2023	11/7/2022	5.51%	6,342,024	212	-	6,408,468
Natixis Bank NY 0 8/1/2023	63873KV12	6,600,000	8/1/2023	11/7/2022	5.57%	6,338,118	213	-	6,403,168
Old Line Funding LLC 0 5/2/2023	67983US20	1,850,000	5/2/2023	11/10/2022	4.97%	1,806,882	122	-	1,819,179
Ridgefield Funding Co 0 3/9/2023	76582KQ95-2	6,480,000	3/9/2023	11/9/2022	4.88%	6,376,320	68	-	6,420,481
Royal Bank of Canada 0 8/1/2023	78015DV15	6,600,000	8/1/2023	11/8/2022	5.44%	6,344,950	213	-	6,409,181
Skandinav Enskilda Bank 0 6/6/2023	83050UT65	1,910,000	6/6/2023	11/9/2022	5.27%	1,853,337	157	-	1,867,630
Sumitomo Mitsubishi Trust 0 2/7/2023	86563HP79	6,460,000	2/7/2023	11/7/2022	4.66%	6,384,059	38	-	6,428,947
Svenska Handel Sbanken 0 5/8/2023	86960KS86	5,500,000	5/8/2023	11/14/2022	5.05%	5,368,191	128	-	5,407,633
Toronto Dominion Bank 0 5/31/2023	89119BSX5	3,500,000	5/31/2023	11/10/2022	5.27%	3,399,449	151	-	3,430,046
Toronto Dominion Bank 0 7/31/2023	89119BUX2	6,600,000	7/31/2023	11/8/2022	5.47%	6,344,452	212	-	6,408,910
MUFG Bank LTD NY 0 6/30/2023	62479MTW3-1	4,565,000	6/30/2023	12/19/2022	5.22%	4,440,675	181	-	4,452,838
Toronto Dominion Bank 0 6/16/2023	89119BTG1	5,250,000	6/16/2023	11/10/2022	5.32%	5,086,273	167	-	5,131,140

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DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Commercial Paper									
Cooperative Centrale 0 6/30/2023	21687BTW1	13,000,000	6/30/2023	11/10/2022	5.31%	12,570,220	181	-	12,680,590
Nordea Bank ABP 0 6/16/2023	65558KTG9	11,260,000	6/16/2023	12/19/2022	4.97%	10,988,462	167	-	11,005,074
Toronto Dominion Bank 0 6/16/2023	89119BTG1	9,475,000	6/16/2023	11/10/2022	5.32%	9,179,512	167	-	9,260,486
LMA Americas LLC 0 3/17/2023	53944RQH4	805,000	3/17/2023	12/19/2022	4.70%	795,850	76	-	797,505
MetLife Short Term 0 3/17/2023	59157UQH6	855,000	3/17/2023	8/4/2022	3.47%	836,831	76	-	847,040
Ridgefield Funding Co 0 3/9/2023	76582KQ95-1	3,250,000	3/9/2023	11/9/2022	4.88%	3,198,000	68	-	3,223,058
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-2	520,000	6/15/2023	11/3/2022	5.30%	503,402	166	-	508,473
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-2	520,000	6/15/2023	12/5/2022	5.17%	506,050	166	-	508,473
Toyota Motor Credit 0 6/15/2023	89233HTF1-2	520,000	6/15/2023	10/4/2022	4.51%	503,967	166	-	508,008
MUFG Bank LTD NY 0 3/10/2023	62479MQA4	400,000	3/10/2023	7/5/2022	3.28%	391,155	69	-	396,636
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-1	920,000	6/15/2023	11/3/2022	5.30%	890,634	166	-	899,300
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-1	917,000	6/15/2023	12/5/2022	5.17%	892,400	166	-	896,368
Toyota Motor Credit 0 6/15/2023	89233HTF1-1	960,000	6/15/2023	10/4/2022	4.51%	930,401	166	-	938,400
Bedford Row Funding 0 1/5/2023	07644BN57	1,125,000	1/5/2023	10/4/2022	3.89%	1,113,811	5	-	1,124,730
Collat CP Co 0 1/30/2023	19423KNW0	1,100,000	1/30/2023	9/1/2022	3.59%	1,083,667	30	-	1,096,359
Gotham Funding Corp 0 3/1/2023	38346MQ15	1,125,000	3/1/2023	11/1/2022	4.88%	1,107,000	60	-	1,117,024
Manhattan Asset Funding 0 4/3/2023	56274MR38	1,125,000	4/3/2023	12/2/2022	4.83%	1,106,891	93	-	1,112,096
Nordea Bank ABP 0 6/16/2023	65558KTG9	3,320,000	6/16/2023	12/19/2022	4.97%	3,239,937	167	-	3,244,835
Cooperative Centrale 0 6/30/2023	21687BTW1	13,000,000	6/30/2023	11/10/2022	5.31%	12,570,220	181	-	12,680,590
Nordea Bank ABP 0 6/16/2023	65558KTG9	13,120,000	6/16/2023	12/19/2022	4.97%	12,803,608	167	-	12,822,963
Toronto Dominion Bank 0 6/16/2023	89119BTG1	13,175,000	6/16/2023	11/10/2022	5.32%	12,764,123	167	-	12,876,718
LMA Americas LLC 0 3/17/2023	53944RQH4	4,480,000	3/17/2023	12/19/2022	4.70%	4,429,077	76	-	4,438,291
Old Line Funding LLC 0 3/16/2023	67983UQG1	10,400,000	3/16/2023	11/14/2022	4.84%	10,232,236	75	-	10,304,528
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-2	935,000	6/15/2023	11/3/2022	5.30%	905,155	166	-	914,274
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-2	927,000	6/15/2023	12/5/2022	5.17%	902,132	166	-	906,451
Toyota Motor Credit 0 6/15/2023	89233HTF1-2	930,000	6/15/2023	10/4/2022	4.51%	901,326	166	-	908,553
MUFG Bank LTD NY 0 3/10/2023	62479MQA4	650,000	3/10/2023	7/5/2022	3.28%	635,626	69	-	644,534
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-1	1,265,000	6/15/2023	11/3/2022	5.30%	1,224,621	166	-	1,236,538
MUFG Bank LTD NY 0 6/15/2023	62479MTF0-1	1,257,000	6/15/2023	12/5/2022	5.17%	1,223,279	166	-	1,228,718
Toyota Motor Credit 0 6/15/2023	89233HTF1-1	1,310,000	6/15/2023	10/4/2022	4.51%	1,269,609	166	-	1,280,525
CitiGroup Global Markets 0 4/27/2023	17327BRT4	1,100,000	4/27/2023	8/1/2022	3.66%	1,070,739	117	-	1,083,555
Collat CP Co 0 1/30/2023	19423KNW0	1,050,000	1/30/2023	9/1/2022	3.59%	1,034,409	30	-	1,046,525
Credit Suisse NY 0 1/5/2023	2254EBN56	1,050,000	1/5/2023	7/5/2022	3.09%	1,033,685	5	-	1,049,748
Gotham Funding Corp 0 3/1/2023	38346MQ15	1,100,000	3/1/2023	11/1/2022	4.88%	1,082,400	60	-	1,092,201
MUFG Bank LTD NY 0 4/3/2023	62479MR39	1,100,000	4/3/2023	10/4/2022	4.35%	1,076,440	93	-	1,087,383
MUFG Bank LTD NY 0 5/30/2023	62479MSW4	425,000	5/30/2023	12/2/2022	5.10%	414,497	150	-	416,568
National Bank of Canada 0 5/30/2023	63307MSW0	675,000	5/30/2023	12/6/2022	5.38%	657,794	150	-	661,608

Portfolio Holdings As of December 31, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Federal Agencies									
FHLMC 0.375 5/5/2023	3137EAER6	\$ 6,000,000	5/5/2023	6/5/2020	0.38%	\$ 6,000,060	125	\$ 3,500	\$ 5,917,020
FNMA 0.25 5/22/2023	3135G04Q3	10,000,000	5/22/2023	6/5/2020	0.36%	9,968,400	142	2,708	9,833,200
FNMA 0.25 7/10/2023	3135G05G4	1,250,000	7/10/2023	7/16/2020	0.29%	1,248,425	191	1,484	1,220,688
FHLMC 0.375 5/5/2023	3137EAER6	14,650,000	5/5/2023	6/5/2020	0.38%	14,650,147	125	8,546	14,447,391
FNMA 0.25 5/22/2023	3135G04Q3	25,000,000	5/22/2023	6/5/2020	0.36%	24,921,000	142	6,771	24,583,000
FNMA 0.25 7/10/2023	3135G05G4	1,650,000	7/10/2023	7/16/2020	0.29%	1,647,921	191	1,959	1,611,308
FNMA 0.25 5/22/2023	3135G04Q3	240,000	5/22/2023	6/5/2020	0.35%	239,292	142	65	235,997
FNMA 0.25 5/22/2023	3135G04Q3	3,400,000	5/22/2023	6/5/2020	0.35%	3,389,970	142	921	3,343,288
FNMA 0.25 5/22/2023	3135G04Q3	670,000	5/22/2023	6/5/2020	0.35%	668,024	142	181	658,824
FNMA 0.25 5/22/2023	3135G04Q3	5,750,000	5/22/2023	6/5/2020	0.35%	5,733,038	142	1,557	5,654,090

Portfolio Holdings As of December 31, 2022

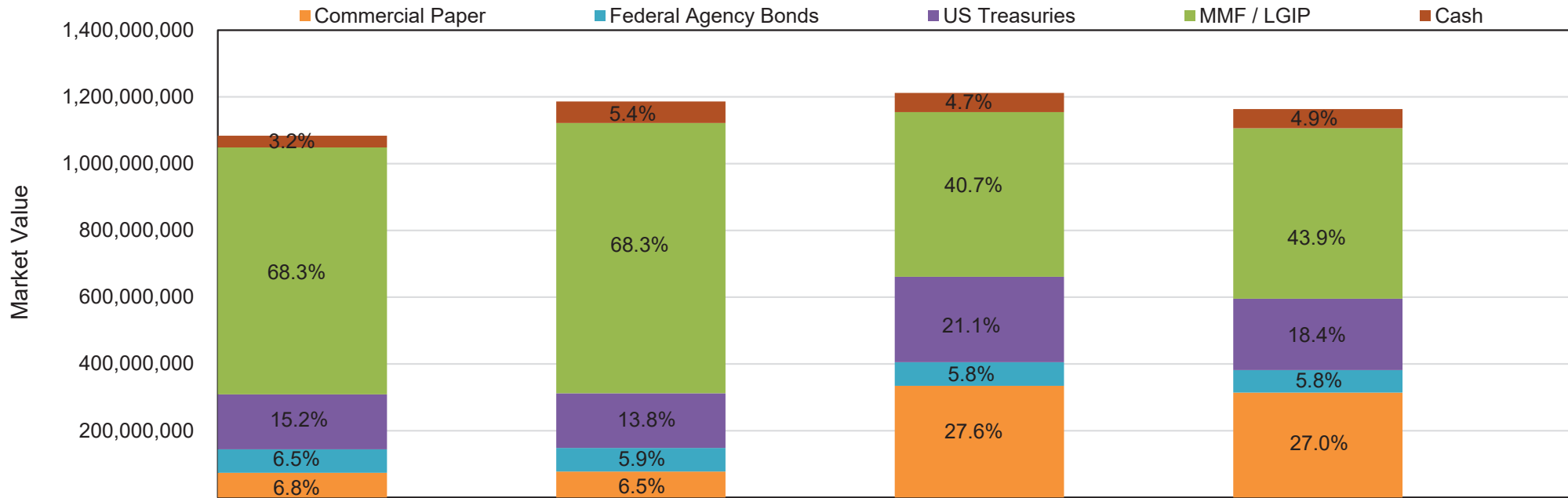
DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
U.S. Treasuries									
T-Note 0 8/15/2023	912833LM0	\$ 10,500,000	8/15/2023	2/7/2020	1.41%	\$ 9,992,745	227	\$ -	\$ 10,205,265
T-Note 0.5 3/15/2023	912828ZD5	10,000,000	3/15/2023	3/16/2020	0.58%	9,977,344	74	14,779	9,923,800
T-Note 1.5 1/15/2023	912828Z29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	15	103,329	14,989,050
T-Note 0.125 12/15/2023	91282CBA8	14,975,000	12/15/2023	11/7/2022	4.78%	14,233,854	349	823	14,343,242
T-Note 0.5 11/30/2023	91282CDM0	12,955,000	11/30/2023	11/7/2022	4.78%	12,386,701	334	5,517	12,463,114
T-Note 0.875 1/31/2024	91282CDV0	6,975,000	1/31/2024	11/7/2022	4.87%	6,646,140	396	25,374	6,690,551
T-Note 1.625 10/31/2023	912828T91-2	16,320,000	10/31/2023	11/7/2022	4.85%	15,822,113	304	44,688	15,912,000
T-Note 1.75 1/31/2023	912828P38	6,600,000	1/31/2023	11/8/2022	4.11%	6,564,422	31	48,020	6,586,594
T-Note 2.25 3/31/2024	91282CEG2	725,000	3/31/2024	11/8/2022	4.91%	699,342	456	4,123	703,363
T-Note 2.75 2/15/2024	912828B66	16,045,000	2/15/2024	11/7/2022	4.87%	15,630,086	411	165,464	15,694,016
T-Note 0.5 3/15/2023	912828ZD5	5,025,000	3/15/2023	3/16/2020	0.58%	5,013,615	74	7,426	4,986,710
T-Note 1.75 1/31/2023	912828P38	8,500,000	1/31/2023	11/8/2022	4.11%	8,454,180	31	61,844	8,482,735
T-Note 0.125 1/15/2024	91282CBE0	260,000	1/15/2024	1/25/2021	0.18%	259,563	380	149	247,907
T-Note 0.25 3/15/2024	91282CBR1	125,000	3/15/2024	3/15/2021	0.33%	124,712	440	92	118,501
T-Note 0.375 12/31/2025	91282CBC4	250,000	12/31/2025	1/25/2021	0.43%	249,287	1,096	-	223,428
T-Note 0.375 4/30/2025	912828ZL7	125,000	4/30/2025	3/11/2021	0.61%	123,789	851	79	114,083
T-Note 0.5 3/15/2023	912828ZD5	250,000	3/15/2023	3/16/2020	0.59%	249,336	74	369	248,095
T-Note 1.375 1/31/2025	912828Z52	280,000	1/31/2025	12/6/2021	0.94%	283,773	762	1,601	263,155
T-Note 1.5 10/31/2024	912828YM6	130,000	10/31/2024	5/27/2021	0.42%	134,773	670	329	123,170
T-Note 1.625 10/31/2023	912828T91-1	130,000	10/31/2023	5/27/2021	0.20%	134,489	304	356	126,776
T-Note 1.75 12/31/2024	912828YY0	445,500	12/31/2024	9/30/2022	0.49%	458,001	731	-	422,878
T-Note 2.625 12/31/2023	9128285U0	313,875	12/31/2023	9/30/2022	3.11%	312,021	365	-	307,428
T-Note 2.625 6/30/2023	9128284U1	1,316,250	6/30/2023	9/30/2022	0.20%	1,340,169	181	-	1,303,653
T-Note 1.75 12/31/2024	912828YY0	654,500	12/31/2024	8/30/2021	0.49%	681,703	731	-	621,264
T-Note 2.625 12/31/2023	9128285U0	461,125	12/31/2023	7/14/2022	3.11%	457,937	365	-	451,653
T-Note 2.625 6/30/2023	9128284U1	1,933,750	6/30/2023	8/30/2021	0.19%	2,019,862	181	-	1,915,244
T-Note 0.125 9/15/2023	91282CAK7	1,260,000	9/15/2023	11/9/2022	4.77%	1,211,913	258	466	1,220,474
T-Note 0.125 1/15/2024	91282CBE0	3,420,000	1/15/2024	1/25/2021	0.18%	3,414,255	380	1,963	3,260,936
T-Note 0.375 12/31/2025	91282CBC4	3,400,000	12/31/2025	1/25/2021	0.43%	3,390,305	1,096	-	3,038,614
T-Note 0.375 4/30/2025	912828ZL7	2,400,000	4/30/2025	8/24/2021	0.59%	2,381,531	851	1,517	2,190,384
T-Note 0.375 7/15/2024	91282CCL3	1,345,000	7/15/2024	8/23/2021	0.42%	1,343,266	562	2,316	1,259,942
T-Note 0.5 3/15/2023	912828ZD5	3,410,000	3/15/2023	3/16/2020	0.59%	3,400,942	74	5,040	3,384,016
T-Note 1.375 1/31/2025	912828Z52	3,346,000	1/31/2025	12/7/2021	0.95%	3,390,570	762	19,128	3,144,705

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DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
U.S. Treasuries									
T-Note 1.5 10/31/2024	912828YM6	3,300,000	10/31/2024	5/28/2021	0.42%	3,421,301	670	8,341	3,126,618
T-Note 1.625 10/31/2023	912828T91-1	3,300,000	10/31/2023	5/28/2021	0.20%	3,414,082	304	9,036	3,218,160
T-Note 0.25 6/15/2023	912828ZU7-2	710,000	6/15/2023	7/5/2022	2.82%	693,082	166	78	696,244
T-Note 0.25 6/15/2023	912828ZU7-2	520,000	6/15/2023	8/4/2022	3.10%	507,488	166	57	509,925
T-Note 0.25 6/15/2023	912828ZU7-2	515,000	6/15/2023	9/2/2022	3.34%	502,789	166	57	505,022
T-Note 0.25 6/15/2023	912828ZU7-1	485,000	6/15/2023	7/5/2022	2.83%	473,405	166	53	475,606
T-Note 0.25 6/15/2023	912828ZU7-1	900,000	6/15/2023	8/4/2022	3.12%	878,203	166	99	882,567
T-Note 0.25 6/15/2023	912828ZU7-1	925,000	6/15/2023	9/2/2022	3.34%	903,067	166	102	907,083
T-Note 0.125 1/15/2024	91282CBE0	695,000	1/15/2024	1/25/2021	0.18%	693,833	380	399	662,676
T-Note 0.25 3/15/2024	91282CBR1	340,000	3/15/2024	3/15/2021	0.33%	339,216	440	251	322,323
T-Note 0.375 12/31/2025	91282CBC4	685,000	12/31/2025	1/25/2021	0.43%	683,047	1,096	-	612,191
T-Note 0.375 4/30/2025	912828ZL7	350,000	4/30/2025	3/11/2021	0.61%	346,609	851	221	319,431
T-Note 0.5 3/15/2023	912828ZD5	688,000	3/15/2023	3/16/2020	0.59%	686,173	74	1,017	682,757
T-Note 1.375 1/31/2025	912828Z52	740,000	1/31/2025	12/6/2021	0.94%	749,973	762	4,230	695,482
T-Note 1.5 10/31/2024	912828YM6	450,000	10/31/2024	5/27/2021	0.42%	466,523	670	1,137	426,357
T-Note 1.625 10/31/2023	912828T91-1	425,000	10/31/2023	5/27/2021	0.20%	439,676	304	1,164	414,460
T-Note 1.75 12/31/2024	912828YY0	355,200	12/31/2024	9/30/2022	0.49%	365,167	731	-	337,163
T-Note 2.625 6/30/2023	9128284U1	456,000	6/30/2023	9/30/2022	0.20%	464,286	181	-	451,636
T-Note 1.75 12/31/2024	912828YY0	5,194,800	12/31/2024	8/30/2021	0.49%	5,410,709	731	-	4,931,008
T-Note 2.625 6/30/2023	9128284U1	6,669,000	6/30/2023	8/30/2021	0.19%	6,965,979	181	-	6,605,178
T-Note 0.125 1/15/2024	91282CBE0	5,790,000	1/15/2024	1/25/2021	0.18%	5,780,275	380	3,324	5,520,707
T-Note 0.375 12/31/2025	91282CBC4	5,750,000	12/31/2025	1/25/2021	0.43%	5,733,604	1,096	-	5,138,833
T-Note 0.375 4/30/2025	912828ZL7	3,965,000	4/30/2025	8/24/2021	0.59%	3,934,488	851	2,506	3,618,697
T-Note 0.5 3/15/2023	912828ZD5	5,765,000	3/15/2023	3/16/2020	0.59%	5,749,687	74	8,520	5,721,071
T-Note 1.375 1/31/2025	912828Z52	5,664,000	1/31/2025	12/7/2021	0.95%	5,739,446	762	32,379	5,323,254
T-Note 1.5 10/31/2024	912828YM6	5,500,000	10/31/2024	5/28/2021	0.42%	5,702,168	670	13,902	5,211,030
T-Note 1.625 10/31/2023	912828T91-1	5,500,000	10/31/2023	5/28/2021	0.20%	5,690,137	304	15,060	5,363,600
T-Note 0.25 6/15/2023	912828ZU7-2	1,275,000	6/15/2023	7/5/2022	2.82%	1,244,619	166	140	1,250,297
T-Note 0.25 6/15/2023	912828ZU7-2	925,000	6/15/2023	8/4/2022	3.10%	902,742	166	102	907,078
T-Note 0.25 6/15/2023	912828ZU7-2	925,000	6/15/2023	9/2/2022	3.34%	903,067	166	102	907,078
T-Note 0.25 6/15/2023	912828ZU7-1	470,000	6/15/2023	7/5/2022	2.83%	458,764	166	52	460,896
T-Note 0.25 6/15/2023	912828ZU7-1	1,240,000	6/15/2023	8/4/2022	3.12%	1,209,969	166	136	1,215,981
T-Note 0.25 6/15/2023	912828ZU7-1	1,270,000	6/15/2023	9/2/2022	3.34%	1,239,887	166	140	1,245,400

Portfolio Snapshot

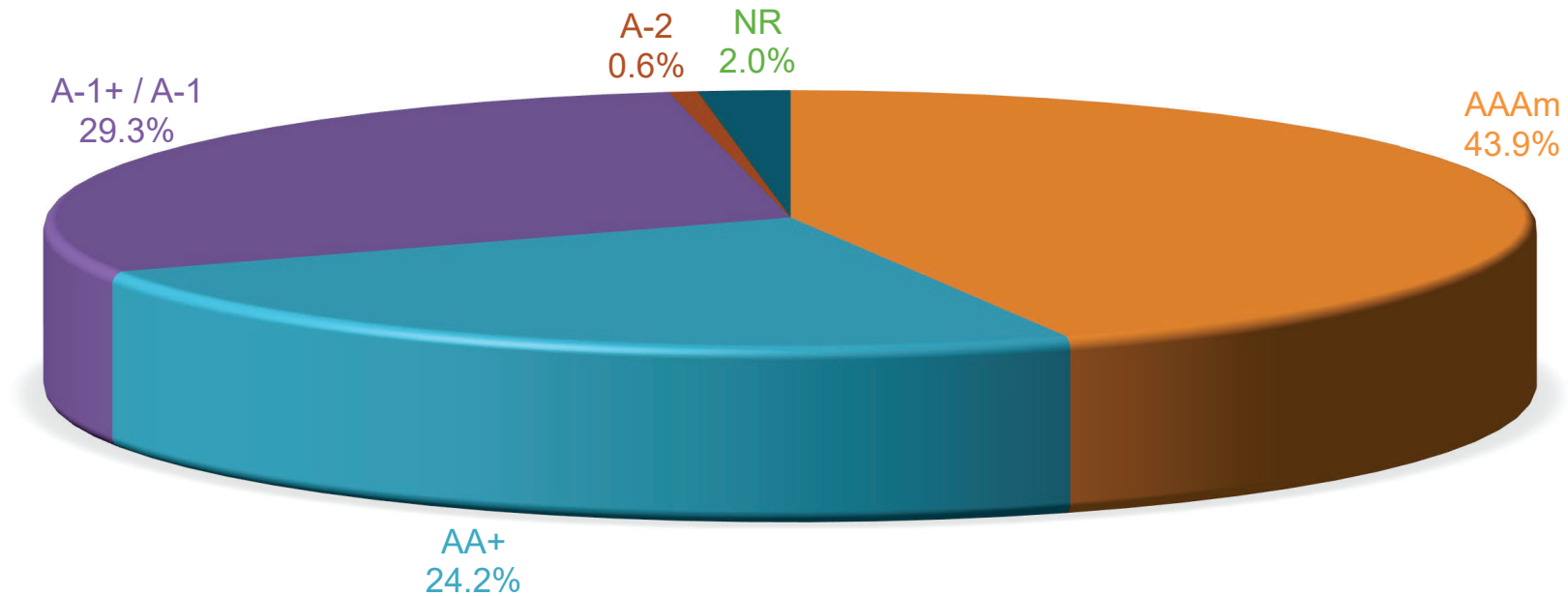
Investments – By Security Type



Security Type	September		October		November		December	
	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation
Commercial Paper	73,827,505	6.8%	77,694,688	6.5%	334,377,222	27.6%	314,135,724	27.0%
Federal Agencies	70,501,408	6.5%	70,497,686	5.9%	70,726,638	5.8%	67,460,122	5.8%
U.S. Treasuries	164,364,067	15.2%	163,706,279	13.8%	256,126,570	21.1%	213,595,594	18.4%
MMF / LGIP	739,954,950	68.3%	810,028,689	68.3%	493,308,255	40.7%	510,834,246	43.9%
Cash	35,203,631	3.2%	64,440,943	5.4%	57,377,781	4.7%	57,305,984	4.9%
Total	1,083,851,561	100.0%	1,186,368,285	100.0%	1,211,916,465	100.0%	1,163,331,669	100.0%

Portfolio Snapshot

Investments – By Credit Quality

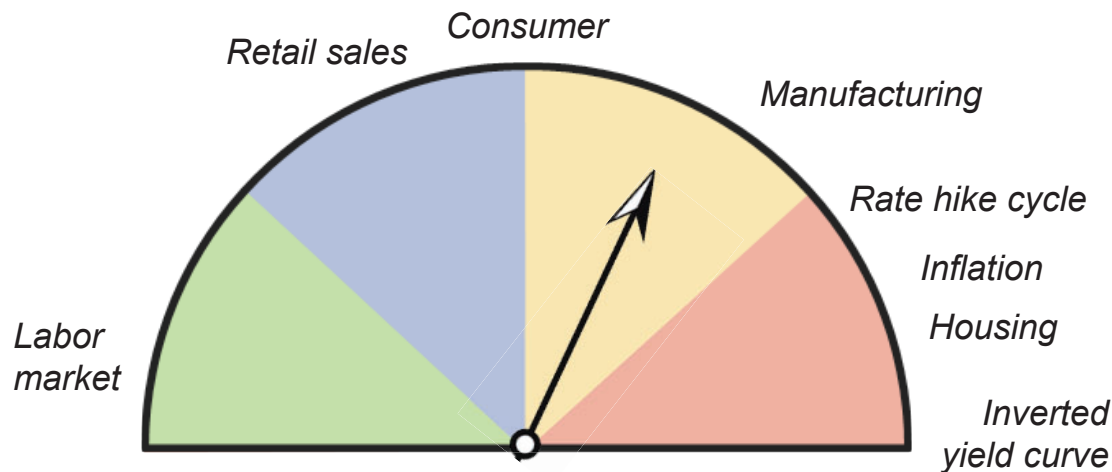


Credit Quality	Market Value	Asset Allocation
Ratings		
AAAm	510,834,246	43.9%
AA+	281,137,358	24.2%
A-1 + / A-1	340,281,231	29.3%
A-2	7,414,943	0.6%
NR	23,663,892	2.0%
Totals	1,163,331,669	100.0%

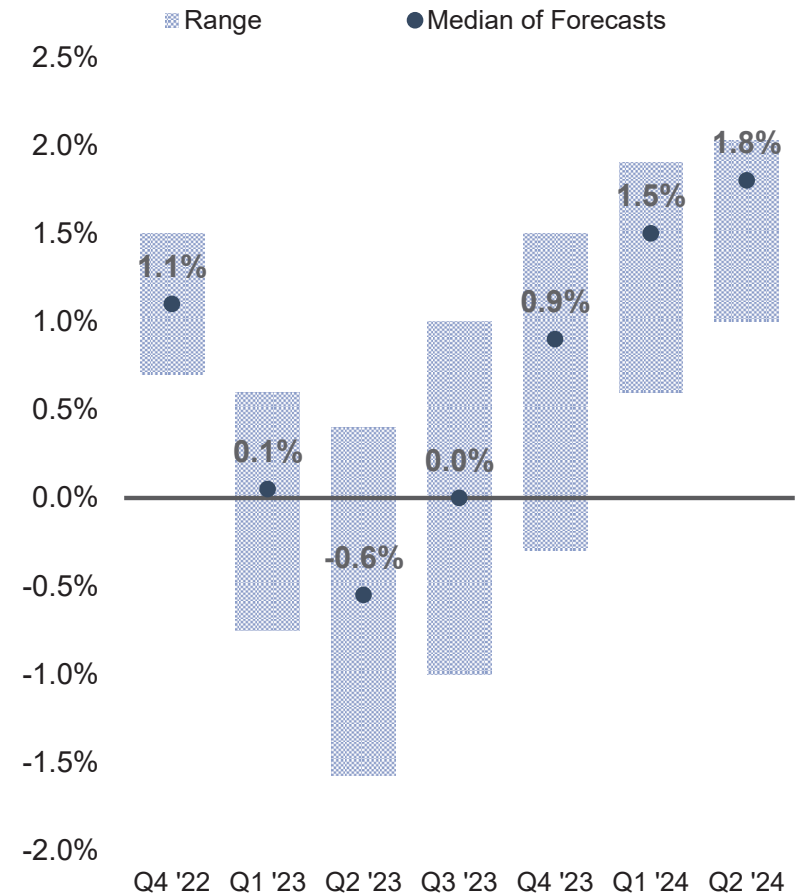
Appendix II: Economic Update

Uncertainty Grows Around Economic Outlook; While Consumer Holds Firm

Recession Risk



U.S. GDP Forecasts Annualized Rate

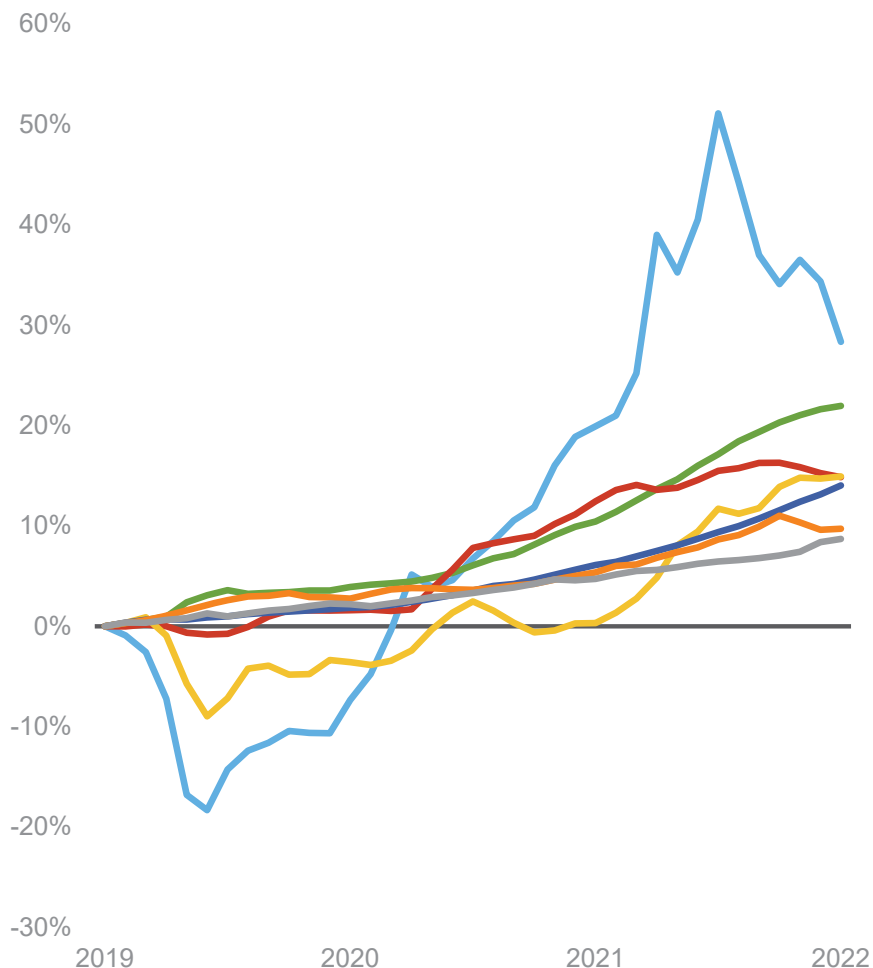


Source: Bloomberg, Economist Forecasts. Recession risk based on most recent economic data as of 1/9/2023.

Growing Disinflation in Goods Sectors Helps Drag Inflation Against Shelter and Transportation Costs

Price Change of Major CPI Components

Since December 2019



CPI Component	12-mo. Change	Weight ¹	Contribution to YoY CPI
Energy	7.0%	7.9%	0.6%
Food	10.4%	13.8%	1.4%
Goods	2.1%	20.9%	0.4%
Transportation	14.6%	6.0%	0.9%
Shelter	7.5%	32.9%	2.5%
Medical services	4.1%	6.8%	0.3%
Other Services ²	3.8%	11.7%	0.4%
Overall	6.5%		

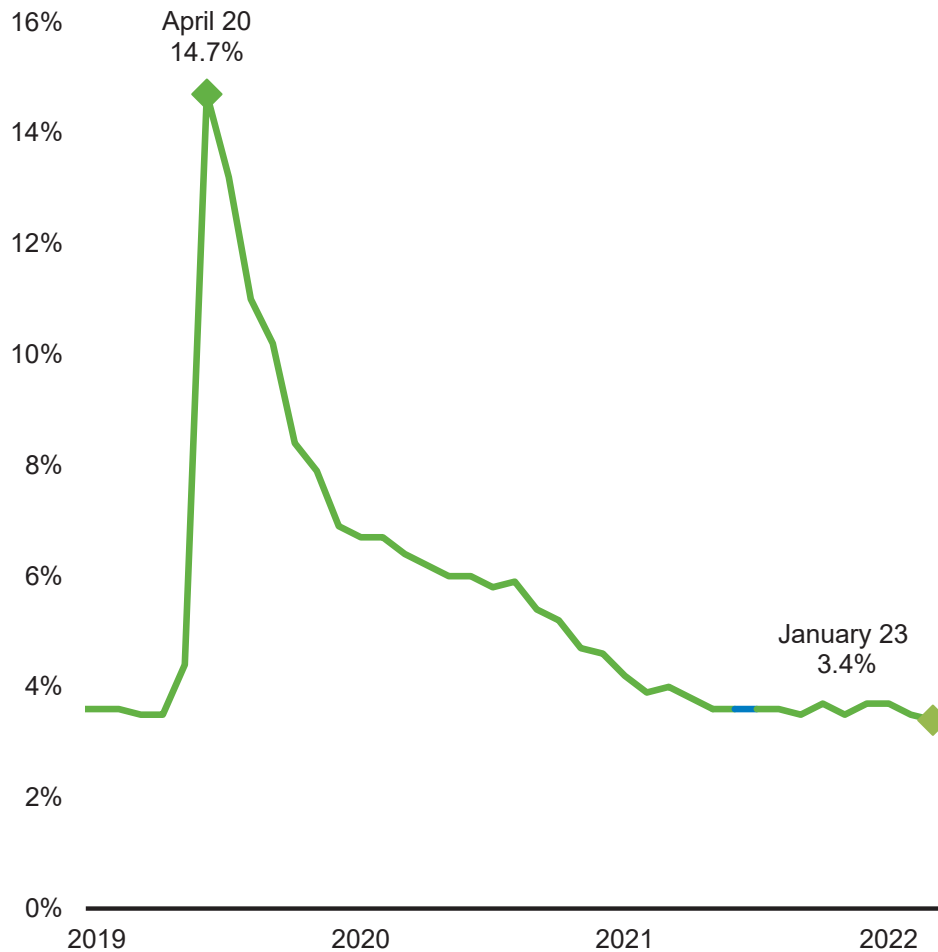
Source: Bloomberg, Bureau of Labor Statistics as of December 2022.

¹ Index weights are as of December 2022 as they are published on a one-month lag.

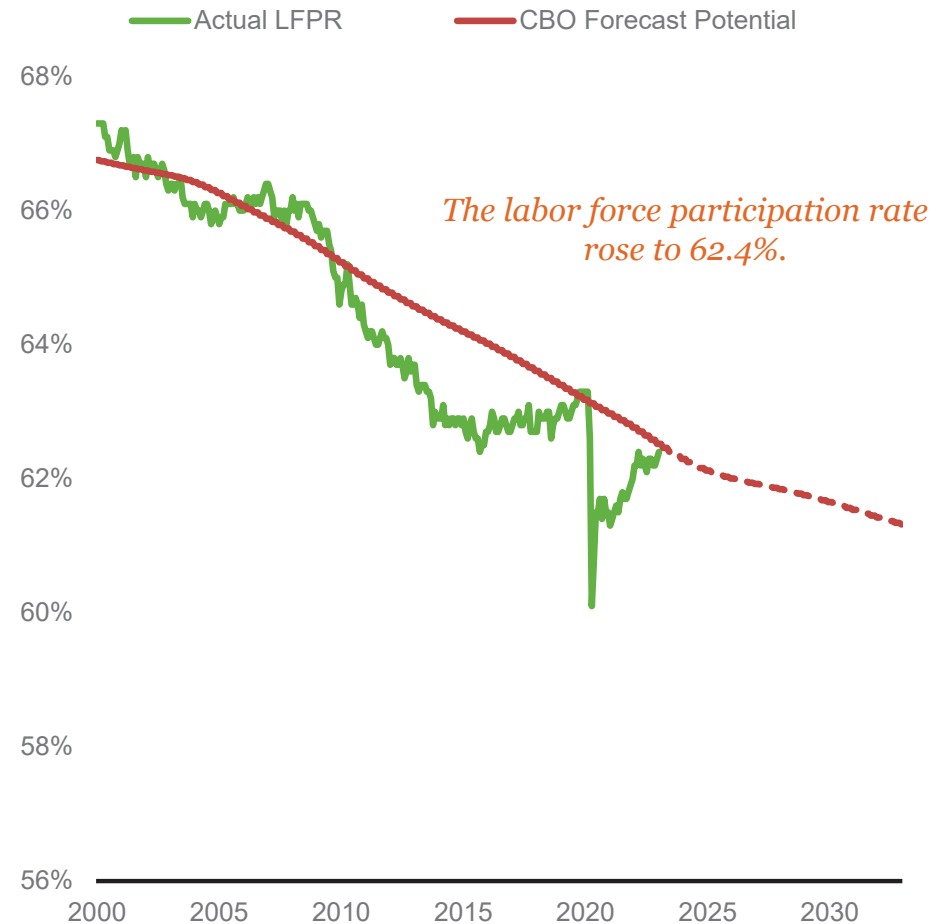
² Other services is a weighted blend of Water/Sewer/Trash, Household Operations, Recreation, and Education and Communication services.

U.S. Economy Added 517,000 Jobs in January; Unemployment Rate Fell to 3.4%

Unemployment Rate



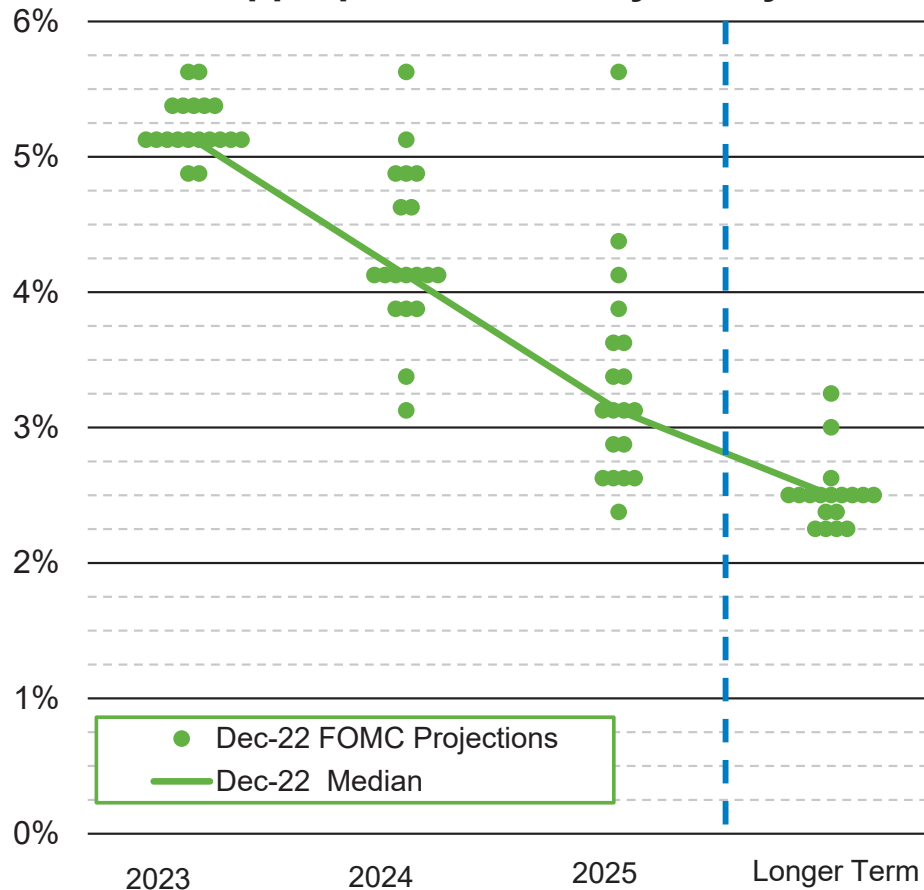
Labor Force Participation Rate



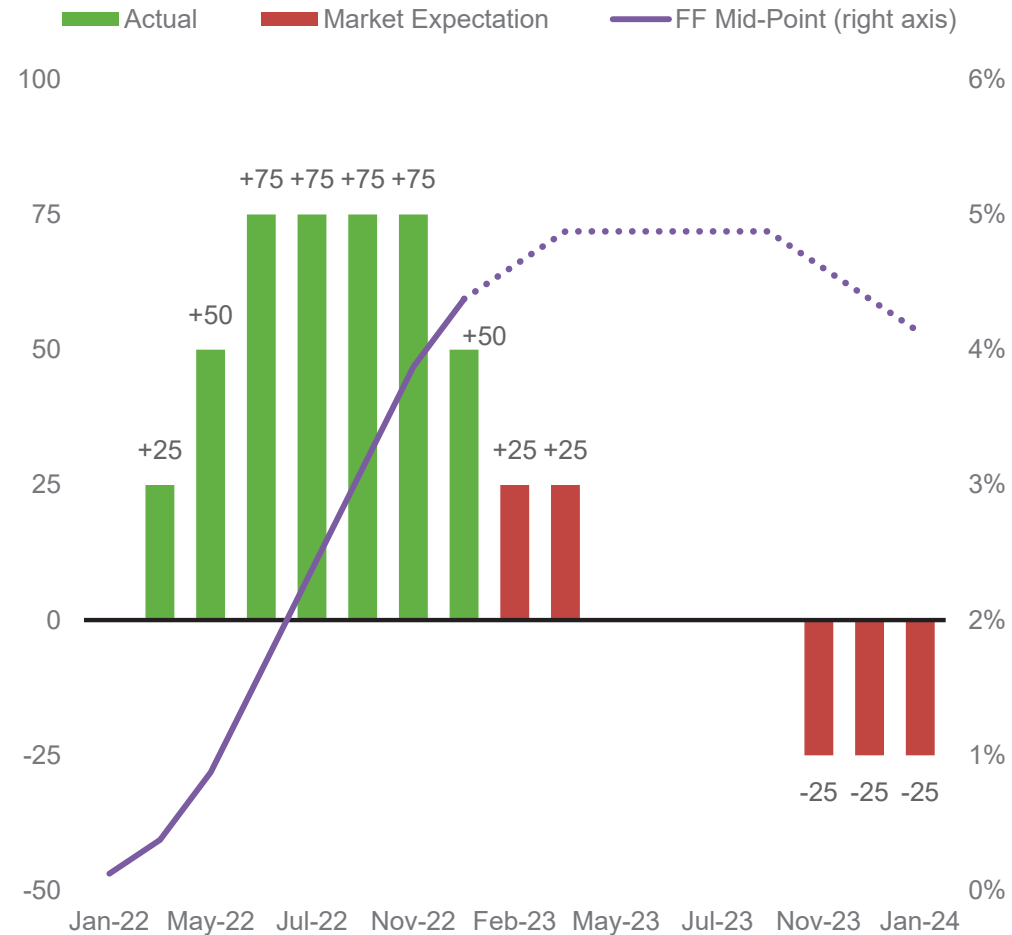
Source: Bloomberg, as of January 2023. Data is seasonally adjusted.

What Could the Fed's Pivot Look Like?

Fed Participants' Assessments of 'Appropriate' Monetary Policy



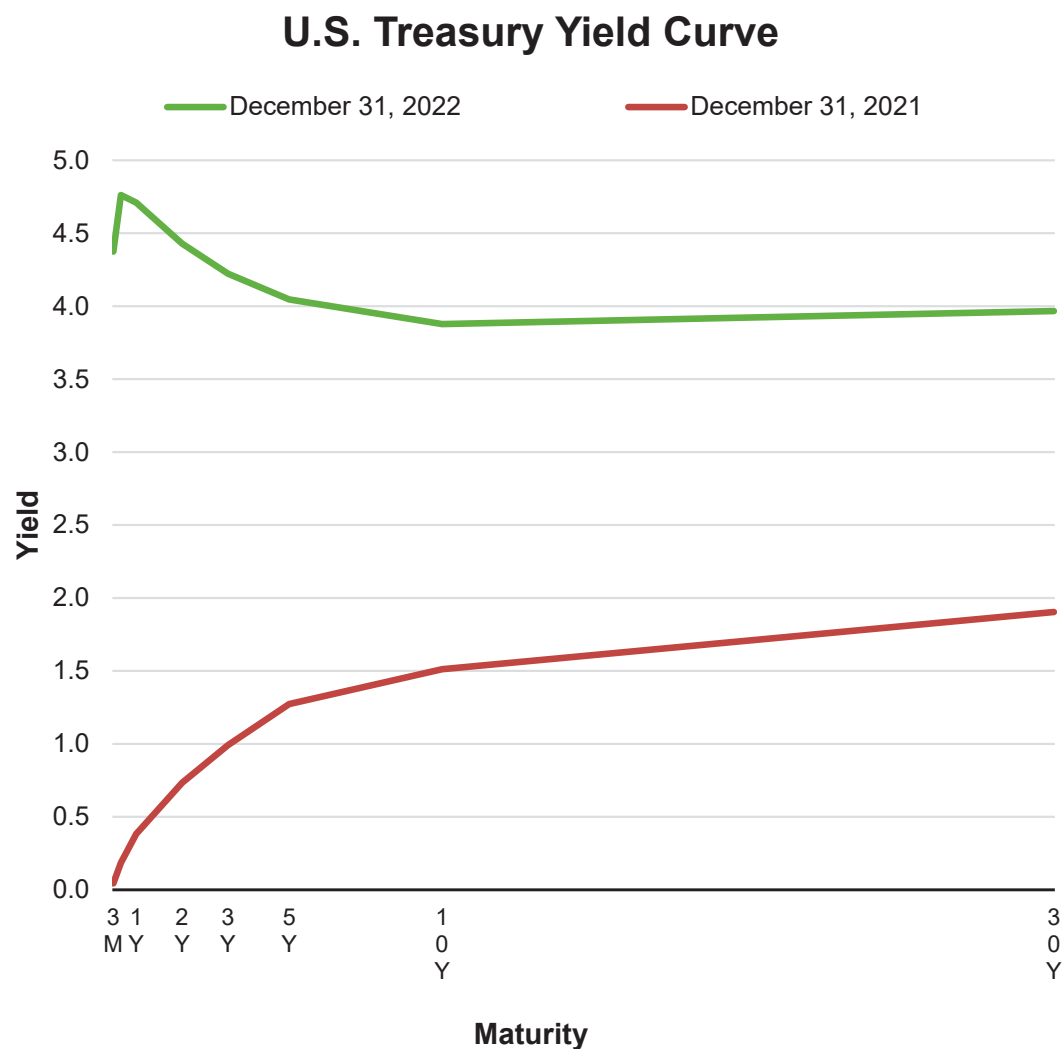
Changes to the Target Fed Funds Rate



Source: Federal Reserve and Bloomberg. Individual dots represent each Fed members' judgement of the midpoint of the appropriate target range for the Federal Funds rate at each year-end.

Treasury Yield Curve

	11/30/2022	12/31/2022	Change
3 month	4.35%	4.37%	0.02%
6 month	4.68%	4.76%	0.08%
1 year	4.71%	4.71%	0.00%
2 year	4.31%	4.43%	0.12%
3 year	4.09%	4.22%	0.13%
5 year	3.85%	4.05%	0.20%
10 year	3.61%	3.88%	0.27%
30 year	3.74%	3.97%	0.23%



Source: Bloomberg, as of 11/30/2022 and 12/31/2022, as indicated.

Fixed Income Market Overview and Outlook

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- In the past quarter, the U.S. economy was characterized by:
 - High inflation that shows signs of slowing
 - Continue strong labor market
 - Potentially declining health of U.S. household finances
 - Expectations for a modest yet broad economic downturn
- The Federal Reserve is expected to wrap up their normalization process
 - Slowing pace of rate hikes
 - Fed projecting short-term Fed Funds rate to reach 5.00% to 5.25% by year-end, with markets expecting rate cuts in the second half of 2023
 - Fed officials reaffirm that restoring price stability is the utmost priority, despite risks of overtightening
- Volatile markets potentially calming
 - Treasury yields in the belly of the curve (3 – 7 years) ended the quarter slightly lower, while shorter and longer maturities ended higher
 - Yield curve inversion has deepened further since last quarter
 - While still elevated, volatility and liquidity challenges have begun subsiding
- The Fed remained center stage and focused on increasing overnight interest rates and tightening monetary conditions in its ongoing battle with multi-decade high inflation
 - At its December meeting, the FOMC raised the Fed Funds rate by 50 basis points to a new target range of 4.25% to 4.50%, the highest level since 2007

Fixed Income

Market Overview and Outlook

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- In large part due to the Fed's historic pace of rate increases, there were accumulating signs of an economic slowdown in the quarter, including:
 - A steeply inverted yield curve; a sharp reversal in the housing market; weakening in both the manufacturing and services sectors; declining personal savings; tepid consumer confidence; retreating commodity prices; and a falling U.S. dollar
 - On the positive side, employment remains strong, household income is rising, and inflation has begun to moderate; the latter forces are significant and may keep the economy out of a deep recession, but uncertainty remains high
- After three quarters of surging yields, U.S. Treasuries traded within a range in the quarter, albeit a somewhat wide one
 - Short-term maturities (less than one year) continued to increase in lockstep with adjustments to Fed policy, reflecting the two rate hikes totaling 1.25% in the quarter; yields on longer-term issues were mixed, with yields on 3 – 7-year Treasuries lower, while those 10 years and longer rose modestly
 - For example, the yield on 3 and 12-month U.S. Treasury Bills finished the quarter at 4.34% and 4.67%, up 110 basis points and 75 basis points, respectively; meanwhile, as markets digested the potential slower pace of Fed rate increases moving forward, the yield on 3, 5, and 10-year U.S. Treasury Notes ended the quarter-end at 4.22%, 4.01%, and 3.88%, down 6 basis points, down 9 basis points, and up 5 basis points, respectively
 - For all of 2022, rates were sharply higher; for reference, the yield on the 2-year Treasury was 369 basis points higher for the year
 - The yield curve remained steeply inverted, as the spread between the 3-month and 10-year U.S. Treasury yields ended the quarter at nearly -50 basis points; only a handful of periods over the past 40 years has the curve reached this level of inversion, which has been a classic warning sign of a looming recession
- Short-term credit instruments, like commercial paper and negotiable bank CDs, provided excellent income opportunities as spreads were elevated and rates moved up with the Fed

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Welcome to the February edition of *The Procurement Pipeline*, a monthly newsletter designed to provide updates on doing business with the Great Lakes Water Authority (GLWA).

GLWA's Fraud and Ethics Hotline

GLWA is committed to transparency in all aspects of its operations and counts on its vendors, as well as team members and member partners, to help ensure that we meet this level of accountability.

To assist in this effort, GLWA has engaged CallsPlus, an independent, round-the-clock report intake service to investigate any concerns regarding unethical, illegal, or unsafe activity. Some common examples of such activities include, but are not limited, to the following:

- Harassment or bullying
- Discrimination
- Crimes and threats
- Ethics violations
- Theft of cash, goods, or services
- Use or sale of illegal drugs
- Vandalism

If a GLWA Vendor suspects that any activity is illegal or unethical, or that there is a potential for loss of health or danger to the public, they can call the toll-free GLWA Fraud & Ethics Hotline at **(888) 882-GLWA (4592)** or file a report online at <https://glwa.callsplus.net>. CallsPlus can be contacted with complete privacy, 24 hours a day, seven days a week, 365 days a year.

Each allegation will be documented by a professional interviewer. You have the option to report anonymously. Information will be relayed to GLWA for investigation or appropriate follow-up. All reports submitted to the Hotline will be handled promptly and discreetly, without retaliation.

GLWA encourages the Vendor community that if they see any activity they suspect is illegal or unethical then say something to help GLWA maintain a safe and ethical workplace for all.

Virtual Vendor Introduction Meetings

If you are interested in learning more about doing business with GLWA, contact us at GLWAVendorOutreach@glwater.org to schedule a virtual vendor introduction meeting. Topics include information on submitting a competitive bid or proposal to any GLWA solicitation.

Where to Meet GLWA

GLWA attends vendor outreach events throughout southeastern Michigan. We welcome you to visit us at the following upcoming events.

- Michigan Department of Transportation (MDOT) 42nd Annual Small Business Development Conference. March 13-14. Double Tree Hilton in Detroit. 10am-5pm. Registration details [here](#).
- Wayne State Procurement Technical Assistance Center (PTAC) Meet the Buyers. March 29. Lift Detroit. 9am-12pm. Registration details [here](#).
- Michigan Public Purchasing Officers Association (MPPOA) Reverse Trade Fair. April 28. The Lansing Center, Lansing MI. 10:30am-3pm. Registration details [here](#).

Keeping up with GLWA

Our Chief Executive Officer (CEO) Monthly Report provides a wealth of information and news about important initiatives within GLWA's service territory that impact GLWA, its member partners, and the public. To read the January 2023 Monthly Report, please [click here](#).

What's Coming Down the Pipe?

Current Solicitations: Register in GLWA's [Bonfire Procurement Portal](#) for new solicitations and contract award information.

Upcoming Procurements: Next Three to Nine Months—See newsletter page 2.

Visit GLWA online!

To see the GLWA Vendor homepage, please visit www.glwater.org or contact us via email at procurement@glwater.org.

Upcoming Solicitations February 2023

Category	CIP #	Description/Project Title	Budget Estimate
Water System (next four to nine months)			
N/A			
Wastewater Systems (next four to nine months)			
Construction	211005.2	WRRF Pump Station 2 VFD Replacements	\$7,000,000
Construction	211005.3	WRRF Pump Station 2 Mag Meter Replacements	\$1,000,000
Construction	260802	WRRF Roofing Improvements	\$4,300,000
Construction	232002	Freud & Connor Creek Pump Station Improvements	\$75,000,000
Design-Bid-Build	261001	WRRF Rehabilitation of Secondary Clarifiers	\$6,000,000
Construction	211007	Pump Station No. 2 Bar Racks Replacement and Grit Collection System Improvements	\$82,000,000
Water System (next three months)			
Construction	170802	Reservoir Rehabilitation Construction Services Phase II at Waterworks Park, Northeast, and Booster Stations.	\$35,972,000
Wastewater (next three months)			
Construction	260209	Emergency and Urgent Sewer Repair II	\$12,400,000
Projects moved to Procurement Team (Preparing for solicitation on Bonfire)			
Construction	170904	Phase II Wholesale Water Meter Pit Rehabilitation and Replacement Project - 60 new meter sites	\$16,000,000
Professional	O&M	CSO Facility Accusonic Meter Maintenance	\$3,000,000
Professional	O&M	Engineering Staff Augmentation	\$7,000,000
Construction	222001	Oakwood District Intercommunity Relief Sewer Modification at Oakwood District	\$74,000,000
Construction	260905	WRRF Plumbing Shop Rehabilitation	\$2,300,000
Construction	260903	WRRF Front Entrance Rehabilitation	\$3,300,000
Professional Services	O&M	Service- All Pumps for CSO Facilities Three Year Contract with Two - One Year Renewals	\$2,200,000
Professional Services	O&M	Property and Casualty Insurance Brokerage and Ancillary Services	\$1,250,000
Professional	O&M	Grounds Maintenance Services	\$4,600,000
Professional	O&M	Electrical Services Contract	\$6,600,800
Professional	O&M	Motor Repair Contract	\$1,800,000
Professional	O&M	Pump Repair Contract	\$1,650,000
Professional	O&M	Instrumentation and Controls Contract	\$3,011,840
Professional	O&M	Scum Disposal and Hauling Contract	\$1,920,000
Professional	O&M	Electrical Maintenance Services	\$4,127,300.00
Construction	260510	Conveyance System Repairs- CSO Outfalls Rehabilitation - Phase 5	\$15,200,000.00

Vendors should continue to monitor [Bonfire](#) for solicitation updates.

Acronyms		
WRRF: Water Resource Recovery Facility	CSO: Combined Sewer Overflow	WTP: Water Treatment Plant